



## Biodiversity conservation, sustainable land management and enhanced water security in Lake Tanganyika basin

### Part I: Project Information

#### GEF ID

10388

#### Project Type

FSP

#### Type of Trust Fund

GET

#### CBIT/NGI

☐ CBIT

☐ NGI

#### Project Title

Biodiversity conservation, sustainable land management and enhanced water security in Lake Tanganyika basin

#### Countries

Regional, Africa, Burundi, Congo DR, Tanzania, Zambia

#### Agency(ies)

UNEP

#### Other Executing Partner(s)

#### Executing Partner Type

**Other Executing Partner(s)**

Lake Tanganyika Authority, Ministry of Environment, Agriculture and Livestock (Burundi), Ministry for Environment and Sustainable Development (DRC), Vice President's Office (Tanzania), Ministry of Water Development, Sanitation and Environmental Protection (Zambia), International Union for the Conservation of Nature (IUCN) and The Nature Conservancy (TNC)

**Executing Partner Type**

Government

**GEF Focal Area**

Multi Focal Area

**Taxonomy**

Fisheries, International Waters, Focal Areas, Freshwater, Lake Basin, Pollution, Nutrient pollution from Wastewater, Transboundary Diagnostic Analysis, Strategic Action Plan Implementation, Biodiversity, Mainstreaming, Tourism, Forestry - Including HCVF and REDD+, Protected Areas and Landscapes, Productive Landscapes, Community Based Natural Resource Mngt, Terrestrial Protected Areas, Species, Invasive Alien Species, Biomes, Tropical Rain Forests, Wetlands, Rivers, Temperate Forests, Grasslands, Tropical Dry Forests, Lakes, Land Degradation, Sustainable Land Management, Sustainable Livelihoods, Income Generating Activities, Sustainable Agriculture, Sustainable Fire Management, Sustainable Pasture Management, Sustainable Forest, Ecosystem Approach, Restoration and Rehabilitation of Degraded Lands, Community-Based Natural Resource Management, Improved Soil and Water Management Techniques, Influencing models, Convene multi-stakeholder alliances, Demonstrate innovative approach, Strengthen institutional capacity and decision-making, Stakeholders, Beneficiaries, Indigenous Peoples, Private Sector, Large corporations, Individuals/Entrepreneurs, SMEs, Financial intermediaries and market facilitators, Local Communities, Civil Society, Community Based Organization, Academia, Non-Governmental Organization, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Women groups, Gender-sensitive indicators, Gender results areas, Capacity Development, Awareness Raising, Knowledge Generation and Exchange, Access and control over natural resources, Participation and leadership, Capacity, Knowledge and Research, Enabling Activities, Knowledge Exchange, South-South, Peer-to-Peer, Field Visit, Conference, Knowledge Generation, Workshop, Training, Innovation, Learning, Indicators to measure change, Adaptive management, Targeted Research

**Rio Markers****Climate Change Mitigation**

Climate Change Mitigation 0

**Climate Change Adaptation**

Climate Change Adaptation 1

**Duration**

60 In Months

**Agency Fee(\$)**

1,313,916

**Submission Date**

10/11/2019

**A. Indicative Focal/Non-Focal Area Elements**

<b>Programming Directions</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
BD-1-1	GET	1,046,995	11,150,980
BD-2-7	GET	3,140,980	15,709,021
LD-1-1	GET	1,932,995	1,858,696
LD-1-4	GET	1,288,663	1,466,545
IW-3-6	GET	5,032,615	21,272,377
IW-3-7	GET	2,156,835	9,314,960
<b>Total Project Cost (\$)</b>		<b>14,599,083</b>	<b>60,772,579</b>

**B. Indicative Project description summary**

**Project Objective**

To enhance transboundary cooperation and SAP implementation through sustainable fisheries co-management, biodiversity conservation and restoration of degraded landscapes in selected key biodiversity areas of Lake Tanganyika. \*Please note that the project comprises a blend of Technical Assistance and Investment. Components 1 and 4 are considered as TA in their entirety. Components 2 and 3 have both Technical Assistance and Investment elements for substantive Investment activities.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
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Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Addressing identified transboundary threats to lake biodiversity (IW=4,733,404 )	Technical Assistance	<p><u>Outcome 1:</u> A regional network of community-based co-managed fisheries areas are established and operationalized, and demonstrate their efficacy as a viable mechanism for the sustainable conservation, improved livelihoods, and utilization of fishery resources in Lake Tanganyika:</p> <ul style="list-style-type: none"> <li>- at least 2 community-based fisheries co-management areas are established and operational in each participating riparian country;</li> <li>- the network of community-based fisheries co-management areas collectively conserves and protects at least 1,000 ha of the lake's key fish spawning and nursery grounds; and</li> <li>- by EOP the number of illegal fishing activities/ practices occurring in the community-based fisheries co-management areas decreases by 50% from the baseline</li> </ul>	<p><u>Output 1.1</u> Prospective sites for community-based fisheries co-management areas are identified and characterised, and the mechanisms for their co-management consultatively developed</p> <p><u>Output 1.2</u> Management and use-zone plans for community-based fisheries co-management areas are prepared, use zones demarcated, fish catches monitored and enforced, and critical fish nursery and spawning areas protected</p> <p><u>Output 1.3</u> Institutional capacities of the national public fisheries agencies are strengthened to support the implementation of sustainable fisheries practises, and protection of important fish habitats, in the community-based fisheries co-management areas; alignment of the national fisheries policies based on the co-management institutions and their networks on a national scale</p> <p><u>Output 1.4</u> LTA collects, collates and maintains data, and disseminates information on, the efficacy of the regional network of community-based co-managed fisheries areas in improving the</p>	GET	4,733,404	21,471,533

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Protection of core conservation zones in three protected areas (IW=887,902 BD=3,021,988 LD=144,527)	Technical Assistance	<p><u>Outcome 2:</u> Improved protection and enhanced delivery of ecosystem services from the core conservation zones of three protected areas;</p> <ul style="list-style-type: none"> <li>- active conservation management occurring in at least 553,775 ha of core conservation zones in three protected areas;</li> <li>- at least 200 field rangers trained, equipped and deployed in the core conservation zones of three protected areas;</li> <li>- more than 50% of the core conservation zones in the protected areas are under a regular ranger patrol regime (i.e. visited at least once/week);</li> <li>- at least 1,700 ha of degraded habitat (riverbanks, forests, grassland, lake edge, wetlands) are under an active restoration/rehabilitation programme in the core conservation zones of three PAs.</li> </ul>	<p><u>Output 2.1</u> Capacities of park/reserve management to monitor and control illegal activities (hunting, fishing, logging, poaching, grazing, mining, etc.) and land encroachment (settlements, mining, agriculture, etc.) occurring in the core conservation zone of each targeted protected area strengthened</p> <p><u>Output 2.2</u> Degraded ecosystems and habitats in the core conservation zones are restored and rehabilitated (upscale sediment control measures and monitoring capacities; stabilise riverbanks; restore compacted wetlands; rehabilitate and restore forest habitats)</p>	GET	4,054,417	17,735,932

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Sustainable natural resource use in three protected areas and selected areas of their buffer zones (IW=800,591; BD=1,569,211; LD=2,266,265)	Technical Assistance	<p><u>Outcome 3:</u> The adoption of sustainable natural resource harvesting approaches and sustainable agricultural crop and livestock practices in targeted villages in protected area buffer zones contributes to reducing anthropogenic pressures on the core conservation areas of three protected areas;</p> <p>- implementation of sustainable resource use and agricultural practices in at least 20,000 ha of protected area buffer zones;</p> <p>- at least 20% of small-scale crop and livestock farmers living in at least 15 project-targeted villages are implementing some form of sustainable agricultural practices by EOP; and</p> <p>- the average income of at least 5,000 vulnerable households in the buffer zones of the 3 protected areas and their increases by more than 5% (zero-based baseline method)</p>	<p><u>Output 3.1</u> Improved knowledge, skills and capacities of targeted communities living in the protected area buffer zones to more sustainably cultivate and extract natural resources for livelihood and subsistence purposes (identify opportunities; information sharing; training and skills development; deliver professional and technical support; supply equipment and materials)</p> <p><u>Output 3.2</u> Technical support on sustainable agriculture provided to subsistence and small-scale crop farmers and pastoralists living in targeted villages in the protected area buffer zones (conduct needs assessment; deliver extension support services; procure equipment, infrastructure and materials)</p>	GET	4,636,068	16,493,824

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Transboundary coordination, information management and M&E (IW=400,000; BD = 70,000; LD = 10,000)	Technical Assistance	<p><u>Outcome 4:</u> Improved coordination and information-sharing among riparian countries, the LTA, donors and other key stakeholders leads to more effective partnerships in the implementation of the SAP and NAPs:</p> <ul style="list-style-type: none"> <li>- revised SAP updated in line with the priorities of the riparian countries for cooperative action to address their transboundary concerns</li> <li>- data collected by riparian countries and LTA is used to inform decisions by riparian countries in implementation of the SAP and NAPs</li> </ul>	<p><u>Output 4.1</u> Improved regional coordination and lessons are shared between the riparian countries (strengthen regional coordination mechanisms; establish community of national practices; exchange information and lessons learnt; participation in IW:LEARN at least 1% of the IW funding)</p> <p><u>Output 4.2</u> State of the lake report and updated SAP -and NAPs accordingly- to revise priority country action based on the regional cooperative activities prior to the present project</p> <p><u>Output 4.3</u> Enhanced LTA capacity to monitor and evaluate the implementation of the updated SAP and NAPs (establish national M&amp;E coordination committees and regional M&amp;E steering committee; support ongoing data collection; produce bi-annual progress reports; establish baseline for the lake environment state via the state of the lake report prior to the project and monitor the status towards end of the project)</p>	GET	480,000	2,177,362

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
				Sub Total (\$)	13,903,889	57,878,651
Project Management Cost (PMC)						
				GET	695,194	2,893,928
				Sub Total(\$)	695,194	2,893,928
				Total Project Cost(\$)	14,599,083	60,772,579

C. Indicative sources of Co-financing for the Project by name and by type				
Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Donor Agency	European Union	Grant	Investment mobilized	6,070,000
Government	Vice President’s Office Tanzania	In-kind	Recurrent expenditures	1,700,000
Government	Vice President’s Office Tanzania	Grant	Investment mobilized	300,000
Government	Ministry of Natural Resources and Tourism Tanzania	In-kind	Recurrent expenditures	1,310,000
Government	Ministry of Natural Resources and Tourism Tanzania	Grant	Investment mobilized	250,000
Government	Ministry of Livestock and Fisheries Tanzania	In-kind	Recurrent expenditures	790,000
Government	Ministry of Livestock and Fisheries Tanzania	Grant	Investment mobilized	160,000
Government	Ministry of Water Tanzania	In-kind	Recurrent expenditures	325,000
Government	Ministry of Water Tanzania	Grant	Investment mobilized	70,000
Government	President’s Office Local Government and Regional Administration, Tanzania	In-kind	Recurrent expenditures	410,000
Government	President’s Office Local Government and Regional Administration, Tanzania	Grant	Investment mobilized	80,000
Government	Ministry of Agriculture, Tanzania	In-kind	Recurrent expenditures	458,000
Government	Ministry of Agriculture, Tanzania	Grant	Investment mobilized	92,000
Government	Ministry of Energy, Tanzania	In-kind	Recurrent expenditures	510,000

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Ministry of Energy, Tanzania	Grant	Investment mobilized	100,000
Government	Ministry of Lands, Tanzania	In-kind	Recurrent expenditures	433,000
Government	Ministry of Lands, Tanzania	Grant	Investment mobilized	87,000
Government	Tanzania Wildlife Authority	In-kind	Recurrent expenditures	3,583,000
Government	Tanzania Wildlife Authority	Grant	Investment mobilized	717,000
Government	Tanzania Forest Services	In-kind	Recurrent expenditures	2,833,000
Government	Tanzania Forest Services	Grant	Investment mobilized	567,000
Government	Lake Tanganyika Basin Water Board	In-kind	Recurrent expenditures	687,000
Government	Lake Tanganyika Basin Water Board	Grant	Investment mobilized	138,000
Government	National Land Use Planning Commission, Tanzania	In-kind	Recurrent expenditures	750,000
Government	National Land Use Planning Commission, Tanzania	Grant	Investment mobilized	150,000
Government	Kibondo District Council, Tanzania	In-kind	Recurrent expenditures	833,000
Government	Kibondo District Council, Tanzania	Grant	Investment mobilized	167,000
Government	Uvinza District Council, Tanzania	In-kind	Recurrent expenditures	1,500,000
Government	Uvinza District Council, Tanzania	Grant	Investment mobilized	300,000

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Kaliua District Council, Tanzania	In-kind	Recurrent expenditures	1,833,000
Government	Kaliua District Council, Tanzania	Grant	Investment mobilized	367,000
CSO	The Nature Conservancy	In-kind	Recurrent expenditures	2,000,000
Government	Ministry of Environment and Sustainable Development, Congo DR	In-kind	Recurrent expenditures	2,500,000
Government	Local sector Itombwe	In-kind	Recurrent expenditures	580,049
Government	Local sector Mtambala	In-kind	Recurrent expenditures	600,000
Government	Local sector Tanganyika	In-kind	Recurrent expenditures	478,225
Government	Local sector Bavira	In-kind	Recurrent expenditures	602,300
Government	Local sector Lulenge	In-kind	Recurrent expenditures	428,395
CSO	Religious congregations	In-kind	Recurrent expenditures	1,747,610
CSO	Local CSOs, Congo DR	In-kind	Recurrent expenditures	4,210,000
Government	Ministry of Environment, Agriculture and Livestock, Burundi	In-kind	Recurrent expenditures	2,500,000
Government	Ministry of Environment, Agriculture and Livestock, Burundi	Grant	Investment mobilized	3,500,000
Donor Agency	World Bank (IDA)	Grant	Investment mobilized	6,000,000
Government	Burundi Office for Environmental Protection	In-kind	Recurrent expenditures	350,000

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Local communities	In-kind	Recurrent expenditures	1,400,000
Private Sector	Private sector companies, Burundi	Grant	Investment mobilized	1,756,000
Government	Ministry of Water Development, Sanitation and Environmental Protection, Zambia	In-kind	Recurrent expenditures	1,500,000
GEF Agency	UNEP	Grant	Investment mobilized	500,000
CSO	Frankfurt Zoological Society	In-kind	Recurrent expenditures	300,000
GEF Agency	IUCN	Grant	Investment mobilized	250,000
GEF Agency	IUCN	In-kind	Recurrent expenditures	2,000,000
<b>Total Project Cost(\$)</b>				<b>60,772,579</b>

**Describe how any "Investment Mobilized" was identified**

Investments mobilized were mainly identified through collaborative initiatives from donor agencies, and Government agencies' projects and initiatives where the costs were budgeted for (other than recurrent costs). Co-financing investments from private sector companies were derived from the amounts committed to ESR programmes in the project-targeted areas, while the co-financing investments from cooperatives was calculated from the ring-fenced amounts committed to environmental protection (as a fixed percentage of the total fee) from the legally required annual payment of cooperative membership fees.

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

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
UNEP	GET	Regional	International Waters	International Waters	7,189,450	647,050	7,836,500
UNEP	GET	Burundi	Biodiversity	BD STAR Allocation	329,806	29,683	359,489
UNEP	GET	Burundi	Land Degradation	LD STAR Allocation	329,806	29,683	359,489
UNEP	GET	Congo DR	Biodiversity	BD STAR Allocation	1,170,161	105,314	1,275,475
UNEP	GET	Tanzania	Biodiversity	BD STAR Allocation	2,688,008	241,920	2,929,928
UNEP	GET	Tanzania	Land Degradation	LD STAR Allocation	896,004	80,640	976,644
UNEP	GET	Congo DR	Land Degradation	LD STAR Allocation	1,995,848	179,626	2,175,474
<b>Total GEF Resources(\$)</b>					<b>14,599,083</b>	<b>1,313,916</b>	<b>15,912,999</b>

E. Project Preparation Grant (PPG)

PPG Required

☐

PPG Amount (\$)

300,000

PPG Agency Fee (\$)

27,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNEP	GET	Africa	International Waters	International Waters	150,000	13,500	163,500
UNEP	GET	Burundi	Biodiversity	BD STAR Allocation	9,643	868	10,511
UNEP	GET	Burundi	Land Degradation	LD STAR Allocation	9,643	868	10,511
UNEP	GET	Congo DR	Biodiversity	BD STAR Allocation	22,500	2,025	24,525
UNEP	GET	Tanzania	Biodiversity	BD STAR Allocation	64,286	5,786	70,072
UNEP	GET	Tanzania	Land Degradation	LD STAR Allocation	21,428	1,928	23,356
UNEP	GET	Congo DR	Land Degradation	LD STAR Allocation	22,500	2,025	24,525
Total Project Costs(\$)					300,000	27,000	327,000

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management for conservation and sustainable use

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
553,775.00	0.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
Akula National Park	125689	Select				<input type="checkbox"/>

Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
553,775.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
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Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park Itombwe Natural Reserve	125689 72312	SelectProtected area with sustainable use of natural resources	208,000.00						<input type="checkbox"/>
Akula National Park Muyowosi Game Reserve	125689 7505	SelectHabitat/Species Management Area	335,775.00						<input type="checkbox"/>
Akula National Park Rusizi National Park	125689 900788	SelectNational Park	10,000.00						<input type="checkbox"/>

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1700.00	0.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1,200.00			
Indicator 3.3 Area of natural grass and shrublands restored			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
500.00			
Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
21000.00	0.00	0.00	0.00
Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
16,000.00			
Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Type/Name of Third Party Certification			
Indicator 4.3 Area of landscapes under sustainable land management in production systems			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
5,000.00			
Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title			Submitted
Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Indicator 5.1 Number of fisheries that meet national or international third party certification that incorporates biodiversity considerations			
Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Type/name of the third-party certification			
Indicator 5.2 Number of Large Marine Ecosystems (LMEs) with reduced pollutions and hypoxia			
Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
0	0	0	0
LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE
Indicator 5.3 Amount of Marine Litter Avoided			
Metric Tons (expected at PIF)	Metric Tons (expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
Indicator 7 Number of shared water ecosystems (fresh or marine) under new or improved cooperative management			

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
<b>Shared water Ecosystem</b>	Tanganyika			
<b>Count</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>

Indicator 7.1 Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Tanganyika	3			<input type="checkbox"/>
Select SWE				

Indicator 7.2 Level of Regional Legal Agreements and Regional management institution(s) (RMI) to support its implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Tanganyika	3			<input type="checkbox"/>
Select SWE				

Indicator 7.3 Level of National/Local reforms and active participation of Inter-Ministerial Committees (IMC; scale 1 to 4; See Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Tanganyika	2			<input type="checkbox"/>
Select SWE				

Indicator 7.4 Level of engagement in IWLEARN through participation and delivery of key products(scale 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Tanganyika	1			<input type="checkbox"/>
Select SWE				

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
<b>Female</b>	9,000			
<b>Male</b>	6,000			

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Total	15000	0	0	0

## Part II. Project Justification

### 1a. Project Description

1a. *Project Description*. Briefly describe:

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

*Profile of Lake Tanganyika and its basin*

Formed about 12 million years ago, Lake Tanganyika lies at an elevation of about 772 m above sea level in the Western part of the Great Rift Valley (see Map 1 in Annex 1). With a length of 673km, it is the longest lake in the world. It averages 50km in width (at its widest it is 72km), has a surface area of 32,900 km<sup>2</sup> and a shoreline length of 1,828km. It is, after Lake Victoria, Africa's second largest lake and the world's second deepest (1,471m), after Lake Baikal. Two main rivers flow into the lake: the Ruzizi River which enters the north of the lake from Lake Kivu, and the Malagarasi River which enters the east side of the lake. There is one major outflow, the Lukuga River, which empties into the Congo River drainage.

The lake is shared by four countries: Democratic Republic of Congo (DRC) (45%), Tanzania (41%), Burundi (8%) and Zambia (6%). Excepting a part of the eastern and northern coast, the lake is confined by the steep sides of the rift valley, most prominent on its western edge which reaches 2,000 meters above the shoreline. This limits the lake's catchment area (Lake Tanganyika Basin) to approximately 231,000 km<sup>2</sup>. The catchment area stretches over the territory of five countries: Tanzania (67%), DRC (16%), Zambia (7%), Burundi (6%), and Rwanda (4%).

The lake is a permanent source of clean water for domestic use and industrial and agricultural development and hosts one of the largest fisheries in Africa (roughly 200,000 tons of fish are produced annually from the lake), particularly through its pelagic fish stocks. Three fish species, Lake Tanganyika sardine (*Limnothrissa miodon*), sleek lates (*Lates stappersii*), and Lake Tanganyika sprat (*Stolothrissa tanganicae*), constitute the major commercial fisheries. Both commercial and artisanal fisheries yield 165,000-200,000 tons of fish per year, employ about 100,000 people in fisheries-related activities, and provide 25-40 percent of the protein needs to one million people living around the lake. The lake is internationally famous in the ornamental fish trade as a source of prized aquarium stock. The lake is also an important communication and transport channel.

Hosting at least 1,500 aquatic species, of which approximately 600 are currently considered endemic, the lake is a recognised global hotspot of biodiversity. The Lake Tanganyika basin is also renowned worldwide for the unique richness of its aquatic and terrestrial biodiversity (including its great ape populations) and the exceptional beauty of its landscape, supporting a substantial nature-based tourism industry.

The basin contains several forest reserves and national parks, including: (i) Rusizi National Park, Kigwena, Monje, Bururi, Kigwena and Vyonda Forest Nature Reserves and Rumonge Nature Reserve in Burundi; (ii) Gombe Stream, Katavi and Mahale Mountains National Parks, Muyovosi and Kigosi Game Reserves and Mpanda Line, Uganda, Swangala and Loasi Forest Reserves in Tanzania; (iii) Nsumbu National Park and Kapula Game Management Area in Zambia; and (iv) Kabobo, Itombwe and Ngandja Natural Reserves in the DRC. The Rusizi National Park in Burundi and the Malagarasi-Muyovozi wetlands in Tanzania are also designated as Ramsar sites of internationally important wetlands.

#### *Profile of project-targeted protected areas*

At the level of the individual riparian countries, the project will target interventions in three protected areas - Itombwe Natural Reserve (INR) in the DRC; Muyowisi Game Reserve (MGR) in Tanzania and Rusizi National Park (RNP) in Burundi - and their adjacent buffer zones (please refer to maps included in Annex 1)[1].

Located in the DRC province of South Kivu, west of Lake Tanganyika, the Itombwe Natural Reserve (573,165 ha) extends over four administrative territories: Mwenga, Uvira, Fizi and Shabunda. It forms part of the Itombwe massif, the largest high-altitude forest in Africa. Of the 15,000 km<sup>2</sup> of the massif, the forest occupies more than 7,500 km<sup>2</sup>, of which more than 6,700 km<sup>2</sup> includes high-altitude (ranging from 1,500 m to more than 3,000 m) forests, including transitional forests and bamboo formations. Dominant tree species of the montane forest, where the canopy reaches around 25 m, include *Parinari sp.*, *Carapa sp.*, *Homalium sp.*, *Syzygium sp.*, *Fagara aff. inaequalis*, *Sapium ellipticum*, *Ocotea michelsonii* and *Croton megalocarpus*, while above 2,000 m the dominants include *Hirtella sp.*, *Symphonia sp.*, *Olea hochstetteri*, *Chrysophyllum sp.*, and *Ficalhoa laurifolia*. It contains the largest block of montane forest in the Albertine Rift mountains and is exceptional in Africa in having an unbroken progression from lowland to montane evergreen forest. The Itombwe mountains are difficult of access and human population densities are low in some parts. Forest is being cleared for agriculture and firewood around villages and cattle graze the high plateaus. The town of Kamituga, an important mining centre, lies just to the north-west of the montane forest area. The Natural Reserve is home to an astonishing array of species, including many that are threatened or endangered – such as forest elephants, chimpanzees and Grauer's gorillas. The reserve has been identified as a site of significant importance for the conservation of threatened and endemic birds and amphibians. It contains more endemic and threatened species than any other region in

Africa and is one of the richest sites for biodiversity in the Albertine Rift. The site is an Endemic Bird Area, an Important Bird Area is the richest single forest area for birds in Africa, with 563 species recorded. The recently described *Caprimulgus prigoginei* is only definitely known from Itombwe. *Phodilus prigoginei* and *Schoutedenapus schoutedeni* are also known with certainty only from this site, although are probably not restricted to it. There are also records of *Ardeola idea*, *Crex crex*, *Gallinago media* and *Glareola nordmanni*. The Reserver is also an Alliance for Zero Extinction site and a Key Biodiversity Area under the Eastern Afromontane Hotspot.

The Moyowosi Game Reserve (600,000 ha) forms part of the core area of a vast and complex riverine floodplain wetland, the Ramsar designated Malagarasi-Muyovozi wetlands, located in the north west of Tanzania in the river basin of the Malagarasi River, Tanzania's second largest river basin (which in turn forms over 30% of the catchment of Lake Tanganyika). The wetlands of the reserve comprise lakes and open water in the dry season, together with a permanent riverine swamp (and/or gallery forest), with large peripheral flood plains that fluctuate widely on a yearly basis (depending on the amount of rainfall). These wetland habitats are surrounded by very extensive miombo woodlands and wooded grasslands. The reserve provides a crucial habitat for two threatened bird species of global significance, the Whale-headed Stork Shoebill and Wattled Crane and is an important nursery and feeding ground for a wide variety of fish species, at least 51 of which are endemic to the area. The reserve is also home to East Africa's largest protected populations of Sitatunga and small numbers of the African slender-snouted crocodile. The Game Reserve lies in Kigoma region. About 2,000,000 hectares of Kigoma landmass is covered by forests of which 839,266.9 hectares are reserved forests (236,421.9 ha in Kasulu, 514,633.5 ha in Kibondo and 88,211.5 ha in Kigoma Rural including Moyowosi game reserve) and the remaining forest area is unreserved. These forests are important for economic activities to adjacent communities who get various forest products for domestic, sale and trade purposes. Firewood, charcoal, construction materials, timber, and others are among the products extracted from these forests. Fishing is a major occupation, although done below optimum level due to lack of improved fishing gear. More generally, the regional economy depends heavily on agriculture, natural resources, livestock, fisheries, tourism, trade and mining, with agriculture being the mainstay of Kigoma residents, accounting for about 80 percent of all sectors' economic contribution to the region.

The Rusizi National Park (10,673 ha) is located along the Rusizi river, 15 km north of the capital city of Bujumbura in Burundi. Along its upstream reaches, the Rusizi river forms part of the border between Rwanda on the east with the Democratic Republic of the Congo (DRC) on the west. Further downstream, it forms part of the border between the DRC and Burundi, and its lowermost reach lies entirely within Burundi. Reed swamps are common along the lower main stem of the river and its tributaries. Near the mouth, the riparian swamps are up to 3 km wide. The Rusizi river flows into Lake Tanganyika through a delta, with one or two small channels splitting off from the main channel. The site is considered an "ornithological paradise" for its stopover and nesting places for migratory waterbirds, with over 120 breeding bird species and 90 migratory species identified. It supports 193 plant species, 90 fish species, and over 12 reptile species including the Nile Crocodile *Crocodylus niloticus* (listed in CITES Appendix 1). It is a source of food and nesting ground for fishes and hosts several indigenous species. Six species of large mammals have been identified, including the IUCN Red-Listed Hippopotamus *Hippopotamus amphibius* and several small mammals including the Sitatunga *Tragelaphus spekii* - increasingly rare in Africa. Its hydrological functions include sediment trapping and general

hydrological balance. The main human activities include fishing, livestock, rice, sugar cane and cotton farming, and collection of non-timber forest products. The site is threatened by erosion, over-exploitation of natural resources, and the use of fertilizers and pesticides for agriculture.

#### *Overview of the trans-boundary management of Lake Tanganyika and its basin*

Recognizing that the Lake Tanganyika basin is a global heritage that is under threat, several important initiatives have been undertaken over the past 25 years. The first, the *International Scientific Conference on the Conservation of Lake Tanganyika Biodiversity*, took place in 1991 and acted as a catalyst for a number of partnerships and initiatives to further enhance knowledge relevant to the sustainable management of biodiversity and natural resources in the Lake basin. In the early 1990's two projects were implemented: the UNDP-GEF 'Lake Tanganyika Biodiversity Project' (LTBP); and the 'Lake Tanganyika Research' (LTR) Project. These projects contributed significantly to building the knowledge on the status of biodiversity and fisheries in Lake Tanganyika and underscored the need for the riparian countries to find joint management solutions for transboundary environmental threats.

The four riparian countries subsequently committed to undertaking a *Transboundary Diagnostic Analysis* (TDA) for Lake Tanganyika (to guide the preparation of a *Strategic Action Plan* for the lake) and drafting a 'Convention on the Sustainable Management of Lake Tanganyika'. On 13<sup>th</sup> July 2000, the governments of Burundi, Democratic Republic Congo, Tanzania and Zambia approved the first *Strategic Action Plan* (SAP) *for the Protection of Biodiversity and Sustainable Management of the Natural Resources in Lake Tanganyika and its Basin*.

The riparian countries later signed the *Convention on Sustainable Management of Lake Tanganyika* in June 2003, which came into force in September 2005 and was ratified by the four Contracting States in November 2007.

The SAP formed the basis for support from a range of international donors and organisations including the GEF, UNDP, AfDB, PND, IUCN and FAO. This support helped to continue the implementation of activities under the *Lake Tanganyika Regional Integrated Management and Development Programme* (LTRIMDP). The implementation of the first SAP began in 2008 with two projects under the LTRIMDP: the UNDP-GEF 'Project on Partnership Interventions for the Implementation of the SAP for Lake Tanganyika'; and the AfDB and NDF funded 'Project to Support the Lake Tanganyika Integrated Regional Development Programme' (PRODAP).

The updated SAP (prepared with support from the UNDP-GEF Project) was later adopted by the Contracting States on 29<sup>th</sup> February, 2012 at the fifth ordinary meeting of the LTA Conference of Ministers. The SAP aims to address problems in a systemic manner and identified six main priorities. These priorities are: (A) adaption and resilience to climate change impacts; (B) sustainable fisheries; (C) sustainable land management; (D) protection, restoration and management of critical habitats; (E) control and prevention of biological invasions; and (F) reduced pollution and improved water quality. Each riparian country has in turn developed a *National Action Plan* (NAP) to integrate the SAP into their national legal frameworks and policies, development plans and budgets. To date, the implementation of the SAP and the NAPs of the individual riparian countries has however been very limited.

The *Lake Tanganyika Framework Fisheries Management Plan* (FFMP) was first published by the Food and Agriculture Organization of the United Nations (FAO) in 1999 under the FAO/Norway Cooperative Programme. A *Lake Tanganyika FFMP Implementation Programme and Component Project Profiles* was also prepared to assist the countries in the implementation of the FFMP. The FFMP was however never implemented by the Lake Tanganyika riparian countries. In 2012 (under the FAO *Technical Assistance Project to Support the Regional Programme for the Integrated Development of Lake Tanganyika*, PRODAP) the FFMP was updated, and the revised FFMP was approved by the recently concluded LTA Conference of Ministers (February 2020), which had been prepared with the support of the African Union Inter-African Bureau for Animal Resources (AU-IBAR).

#### *Key institutions*

The Lake Tanganyika management is entrusted to the Lake Tanganyika Authority (LTA), an intergovernmental regional organisation established by the governments of the four riparian countries through the Convention. The LTA has been operational since 2008 and its Secretariat is based in Bujumbura, Burundi. The Conference of Ministers is the governing body of the LTA and consists of four Ministers, one from each of the Lake Tanganyika riparian countries (Burundi, Democratic Republic of Congo, Tanzania, and Zambia). The major function of the Conference of Ministers is to evaluate the implementation of the Convention. The second LTA leadership group is the Management Committee, which consists of four members from each Lake Tanganyika riparian country representing fisheries, environment, water and finance sectors. The major function of the Management Committee is to support, coordinate and monitor the implementation of the Convention. The third LTA leadership group is the Secretariat which consists of the Executive Director and three Directors each responsible for Environment, Fisheries and Finance & Administration. The major function of the Secretariat is to oversee implementation of program and project activities in accordance with the provisions of the Convention.

The mandates of the LTA on fisheries are provided in Article 23 and Article 7 of the Convention. The role of LTA is to Coordinate implementation of the Convention in promoting sustainable fisheries management by the Contracting States, acting separately and jointly, to:

- a) Take priority, appropriate measures to prevent and reduce as far as possible adverse impacts of fishing activities under their jurisdiction or control;
- b) Develop harmonized national fisheries policies based on the relevant principles set out in the Code of Conduct for Responsible Fisheries adopted by the Conference of the Food and Agriculture Organization of the United Nations;
- c) Develop, adopt, implement and enforce harmonized legal, administrative and technical measures to manage fisheries and eliminate unsustainable fishing practices and to reduce the pressure on over-exploited fisheries by, in particular, regulating fishing effort, practices capacity and aquaculture;
- d) Develop, adopt, implement and enforce harmonized legal, administrative and technical measures to manage fisheries and to eliminate unsustainable fishing practices and to reduce the pressure on over-exploited fisheries by, in particular, regulating fishing effort, practices capacity and aquaculture; and
- e) Promote broad participation in fisheries management including the development of community based management structures with due regard to local conditions.

In the DRC, the *Institut Congolais pour la Conservation de la Nature* (ICCN) is mandated to plan and manage the Itombwe Natural Reserve. Community governance committees have been established for the reserve as a way of involving community representatives in the management of the reserve. Community members and their leaders are involved in various conservation activities, either to support ongoing interventions or to lead some of the interventions. A small corps of armed ICCN rangers are involved in patrolling some areas of the reserve, while local communities have also been trained and resourced to patrol areas located in management zones surrounding their villages. WWF further provide critical professional, technical and financial support to the ICCN (e.g. delimitation of the reserve, preparing the reserve management plan, construction of ranger stations, building working relationships with local and indigenous communities) in the ongoing management of the reserve.

In Tanzania, the Moyowosi Game Reserve (MGR) is managed by the Tanzania Wildlife Management Authority (TAWA) under the ministry Natural Resources and Tourism. TAWA is also responsible for the protection and utilization of wildlife (including mitigating human-wildlife conflicts (HWCs) in the buffer areas around the MGR. The reserve has a total of about 50 staff to patrol the area but has no boats and only limited numbers of vehicles which makes patrolling of the area especially during the wet season difficult. A number of game posts have been established around the reserve, but the boundaries are poorly demarcated and there are few access roads.

In Burundi, the Burundian Office for the Protection of the Environment (OBPE) in the Ministry of, Environment, Agriculture and livestock is responsible for addressing issues related to biodiversity and protected areas, land degradation, conservation of aquatic resources and sustainable management of forests in and around Rusizi National Park (RNP).

The local communities elected a management committee to represent them in the management of the Park that requires strengthening and clarifying a collaboration framework with OBPE. There are also resident associations that contribute to protection, patrolling and basic maintenance services in exchange for permits allowing for sustainable harvesting of natural resources, mainly for subsistence.

### *Key threats to Lake Tanganyika and its basin*

The lake ecosystem faces an array of challenges created mainly by increasing human populations and the changes in land use. Recent rapid population growth and intensified human activities, which have induced changes in land use patterns and deforestation in the lake basin, have resulted in an increase in soil erosion and sediment loads transported by rivers into the lake.

The current population in the Lake Tanganyika basin is estimated at between 12.5 and 13 million inhabitants, more than one million of which live along the immediate lake shore and are directly dependent on its natural resources. With rapid population growth occurring in the riparian countries (ranging from 2 to 3.3% per annum), the number of people depending directly or indirectly on the lake's resources is increasing exponentially. Poverty is also rampant, with the majority of the population - particularly those along the lake shore - living in extreme poverty, leaving people no alternative but to unsustainably exploit natural resources for their livelihood[2]. Political instabilities in some riparian countries is further exacerbating this state of general impoverishment.

Erosion is of the highest concern in the medium size catchments (50-4,000 km<sup>2</sup>) of the lake basin, where the sediment load is discharged into the lake without the mitigating effects of major wetlands. This brings higher than usual amounts of suspended matter into the lake threatening its biodiversity and reducing depth in nearby ports, leading to disruption in navigation. Furthermore, as vegetative cover is removed, weathering processes increase, and soil nutrients are lost through runoff. This can lead to rapid and significant losses of soil fertility in the catchment prompting opening of new agriculture fronts into intact natural protective forest cover. The loss of topsoil in combination with tectonic and wind activities in the basin area often lead to landslides. This results in damage to buildings and loss of lives but also increased sedimentation, further exacerbating adverse effect on littoral fisheries. The littoral zone[3] is also increasingly threatened by poorly managed coastal development.

Fisheries in Lake Tanganyika face many threats including breeding ground loss and/or modification due to sedimentation and human encroachment, over-fishing in the littoral zone, use of illegal fishing gear (e.g. seine nets) and dynamite. Certain commercial fisheries have reported significant declines in catch per unit effort (CPUE) (an estimator of fish

abundance) of close to 90%. It has been reported that, between 1995 and 2011, the total fish stock has decreased by 25%. A proper lake wide fish stock assessment is missing to date and riparian countries have not been able to set sustainable levels of commercial fish yield from the lake as a result.

Much of the basin is already densely populated, and climatic changes may further affect access to water resources, increase the likelihood of drought, and negatively affect agricultural productivity and livelihoods. Climate change has the potential to combine with these demographic changes to increase environmental pressures.

While the environmental situation across the lake and its basin continues to deteriorate, it should be noted that the vastness of Lake Tanganyika and its basin helps absorb and mitigate known environmental impacts to a certain degree. For example, the quality of water across the lake still remains relatively good. Nevertheless, existing trends in deforestation, sedimentation, overfishing and pollution exacerbated by climate change impacts such as flooding, soil erosion, and drought, will, if unattended, lead to an ever-increasing pace of the deterioration of environmental conditions and overall degradation of Lake Tanganyika.

#### *Key threats to the project-targeted protected areas*

Following almost two decades of conflict and chronic instability in the region, large numbers of people have settled in and around Itombwe Natural Reserve in the DRC and are converting the forest for agriculture and pastures. The reserve is increasingly threatened by itinerant slash-and-burn farming practices, illegal commercial hunting (with firearms and automatic military weapons), subsistence hunting (practiced by the resident population with traditional trapping techniques), the conversion of forests to pasture areas on the highlands, and forest harvesting for lumber and for commercial charcoal production. This situation is being further exacerbated by the discovery of valuable minerals such as coltan and cassiterite, and to a lesser extent diamonds. The reserve is divided among a number of chiefdoms and villages, and poachers—banned from hunting bushmeat in their home portion of the reserve—are also moving into neighbouring areas to hunt. Corruption, illegal hunting permits, weak governance, impunity, high local demand for bushmeat, the presence of villages inside the reserve, and limited government resources to respond are significant barriers to effectively addressing these threats.

In Tanzania, the conversion of “buffer” miombo woodland along the north-western boundaries of the Moyowosi Game Reserve for agricultural crops (especially for the growing of maize and beans) and the illicit harvesting of forest products, wildlife resources and fish also constitutes a significant threat to the integrity of the boundaries of the reserve. Heavy levels of poaching have been recorded in the area over the past 20 years and the populations of some species of large mammal have been significantly reduced. The weak

enforcement of fishing license conditions is further leading to an overexploitation of key fish populations in the reserve. Poverty poses an enormous challenge to the reserve management, with most people around the reserve living under extremely difficult socio-economic conditions.

The fisheries, forest and wetland resources of the Rusizi National Park in Burundi are being unsustainably exploited as a result of an ever-increasing demand for goods and services by the rapidly increasing human population. Loss and degradation of habitat, sedimentation due to deforestation, eutrophication, excessive water withdrawal for municipal use, overexploitation of riparian and woodland resources, illegal fishing and pollution are the leading causes of the degradation of the park and its river catchment.

#### *Long-term solution to the sustainable management of Lake Tanganyika and its basin*

The long-term solution sought by the project is more effective collaboration and coordination between the riparian countries in the implementation of the SAP, FFMP along with NAPs under the *Convention on Sustainable Management of Lake Tanganyika*. A more harmonized approach to the implementation of the SAP and NAPs will result in concrete actions to promote biodiversity conservation and sustainable land management in project targeted areas of the lake and its basin. These actions will result in a reduction of erosion, a decrease in sedimentation, the maintenance of healthy fish stocks, and the conservation of priority natural habitats in project targeted areas of the lake and its basin that will be scaled up across the basin.

#### *Barriers to achieving the long-term solution*

The effectiveness of efforts to realise this long-term solution is however being compromised by the following key barriers:

**Low compliance with, and inadequate enforcement of, fisheries laws and regulations by resource users in Lake Tanganyika.** The fisheries management in Lake Tanganyika is open access, and the compliance and enforcement levels of the various laws of relevance to the lake vary among the countries. Individually, the riparian countries are implementing a number of fisheries control measures, such as: mesh size restrictions, closed areas and seasons, observation of lunar breaks for the pelagic fishery, licensing, assessment of catches together with monitoring, control and surveillance, and enforcement. But, in general, these measures are not effective in the absence of inclusive and participatory approaches towards fisheries management with lakeshore communities on the basis of Fisheries Management Plans and related governance structures that promote

self-regulation, protecting recognized fish breeding sites (FBSs), sustainable fishing practices, increased economic gains from fish and integration with alternate livelihoods. Accordingly, heavy damage is being inflicted on littoral-borne life stages of pelagic species due to uncontrolled beach seining and use of other destructive gear. There is also a loss of fish quality and quantity through the post-harvest handling stages (processing, transport and marketing).

**The capacity of the national agencies responsible for the conservation planning and management of the targeted protected areas (Rusizi NP in Burundi, Muyowosi GR in Tanzania and Itombwe NR in DRC) is weak, with insufficient operational funding, staffing complement and technical skills being committed to fulfil their conservation mandates.** These agencies are not fully capable of providing adequately for the day-to-day protection and management requirements of even the core conservation zones of the protected areas. They are unable to effectively regulate and monitor illegal encroachments, poaching, mining activities or timber harvesting occurring in these core conservation zones, increasingly exposing them to further deforestation and degradation. The protected areas are all poorly demarcated and weak support from local communities and political decision-makers and there is limited community involvement in and beneficiation from the ongoing planning, management and restoration of these protected areas.

**There is little incentive for communities living in and around the protected areas to invest in the long-term sustainability of the natural resources of the protected areas, and short-term gains are instead being maximized through overutilization.** Weak participative land use planning around the protected areas is contributing to unsustainable levels of use that do not take due consideration of conservation and the rights of natural resource-dependent communities. There is limited attention being paid to alternative livelihoods in and around these protected areas. Shifting cultivation practices is resulting in the ongoing conversion of forest and grassland to agricultural land by encroachment, and subsequent abandonment of degraded agricultural land in these areas, contributing to erosion and sedimentation related pollution, affecting the quality and functioning of the basin's ecosystem services. Current agricultural production practices in these areas do not address long-term soil fertility constraints in the prevailing cropping systems. As a result, most farmers depend on inorganic fertilizers that deal with soil fertility for a given season. When farmers are not able to afford fertilizers, cultivation of the same piece of land for crop production can only be sustained for a few years and then they are forced to open new lands that are more fertile, and in a lot of cases, this will be in the natural areas in and around the protected areas.

## 2) the baseline scenario and any associated baseline projects:

The associated large-scale baseline projects, at the regional, and individual riparian country, level for the lake and its basin include *inter alia*:

At the regional trans-boundary scale, the Lake Tanganyika Authority (LTA) is coordinating all development and management efforts on the lake. The four riparian countries each contribute USD 303,900 per year to cover LTA salaries at both regional and national levels (5% of this amount is used for operational costs of the LTA). The *Capacities for*

*Biodiversity and Sustainable Development*" (CEBioS) Programme funded by the Belgian Development Cooperation is partnering with institutions in Burundi (€ 93,000) to facilitate the link between scientific research and sustainable management of the 3 main National parks in Burundi (including Rusizi National Park) and in DRC to strengthen its habitat monitoring capacities. An EU-funded programme, *Contribution of Sustainable Fisheries to the Blue Economy of the Eastern Africa, Southern Africa and the Indian Ocean region* (ECOFISH), is currently under development for a regional envelope of € 28 million. The programme will include an allocation of at least € 2 million for improving regional fisheries management capacities (including policies, legislation, governance, planning and knowledge management) and developing, testing and implementing local fisheries management systems, in Lake Tanganyika. A new € 6.9 million EU-funded<sup>[4]</sup> Lake Tanganyika Water Management project (LATAWAMA) has recently been developed, and once under implementation, will: support the development and testing of a water quality monitoring tool for Lake Tanganyika; implement wastewater management, waste management and sanitation projects in 5 pilot cities in the riparian states; and strengthen the capacity of LTA to coordinate and support water resource management stakeholders. The Nature Conservancy (TNC) has produced a Lake Tanganyika Freshwater Atlas to inform decision making. The WB, IDA and Japan Policy and Human Resources Development Fund (PHRD) funded *Regional Great Lakes Integrated Agriculture Development Project* (PRDAIGL 2017-2022) - of which USD 152.7 million is allocated to the Tanganyika and South-Kivu provinces in the DRC and USD 79.73 million is allocated to Burundi - supports the development of selected agricultural value chains, including: (i) enhancing productivity and market linkages of selected value chains; (ii) development of critical market infrastructure; (iii) improving the business environment and access to finance; (iv) supporting development of agro-industrial parks; (v) strengthening regional cooperation and joint natural resource management; and (vi) expanding regional agricultural research. The project area covers 5 of the country's 18 provinces, including Bujumbura Rural, Cibitoke, Bubanza, Rumonge, and Makamba. The USD 1 billion multi-agency (including GEF, WB, BMZ and private sector partners) funded *African Forest Landscape Restoration Initiative* (AFR100) is a country-led effort to bring 150 million hectares of deforested and degraded landscapes across 28 African countries – including the riparian countries of DRC, Burundi and Tanzania - into restoration by 2020. The current SAP places a high priority to fisheries among the identified threats to sustainable management and use of lake resources. In this regard, the SAP also aims at developing a network of co-management schemes. The co-management area developed in Tanzania under the Tuungane project is the first demonstration of such a co-management approach but there is a still gap in developing a functional regional network of the fisheries co-management areas where these areas collaboratively address the needs of conservation of important fish habitats and maintaining fish stock of the region.

In the DRC, the Itombwe Natural Reserve (INR) has a total government budget allocation of approximately USD 296,000 per annum (projected at ~USD 1.5 million over the five year-term of the project). The provincial government has recently prepared the *Provincial Development Plan for South Kivu* (2019-2023), and its linked sectoral plans and budgets. The estimated budget commitment to the implementation of this plan in the INR and its buffer areas for the five years of project implementation is conservatively estimated at USD 2m. The national government has committed, through the responsible line ministries (notably the Ministry of Environment and Social Development and the Ministry of Scientific Research) at least USD 1.2 million in support of research and monitoring activities in and around Lake Tanganyika. The project *Towards sustainable fisheries in Lake Tanganyika: integration of genetics, environmental data and stakeholder involvement* (2016-2020, € 145 000), financed by the Directorate-General for Development Cooperation (DGD) and implemented by VLIR-UOS (through a PhD scholarship program), is supporting partner institutions in the DRC to improve the biological knowledge (population dynamics, causes for decline of fish stocks and proposals for more sustainable fisheries system) of two key fish species (locally known as 'kapenta') that

provide more than 60% of the annual fish production of Lake Tanganyika. The USD 3,730,734 GEF-7 GWP Phase II project *Kabobo-Luama Protected Area Landscape Management project* is currently under preparation. The project aims to strengthen the management of the Kabobo-Luama protected area landscape (located in eastern DRC in Tanganyika Province) through enhancing PA operational management capacities, establishing PA infrastructure and facilities, engaging communities in joint-management and improving livelihoods in the corridor and buffer areas. The USD 79.1 million WB, IDA-financed *Eastern Recovery Project* (2014-2020) seeks to improve access to livelihoods and socio-economic infrastructure in vulnerable communities in the eastern provinces (including South Kivu and Tanganyika) of the DRC through: (a) improving access to community social and economic infrastructure; (b) facilitating and improving inclusive community participation processes; (c) strengthening local conflict prevention and resolution mechanisms; (d) creating short-term employment opportunities; (e) developing sustainable livelihood options; and (v) building local capacities. The USAID-funded *Central Africa Regional Program for the Environment* (CARPE Phase III) Regional Development Cooperation Strategy (RDCS) 2011-2020 builds on previous successes in forest monitoring and management. USAID will, through its *DRC Environment Partnership Program* (DRC EPP), invest USD 50 million in: (i) improving protected area management; (ii) sustainable management of community forests; (iii) tourism expansion; (iv) development of alternatives for wild bush-meat and charcoal; (v) countering wildlife poaching and trafficking; and (vi) promoting alternatives to shifting agricultural practices in seven (two of which area shared with adjacent countries) targeted landscapes in the DRC (including the Maiko-Tayna-Kahuzi-Biega landscape which includes part of the lake basin). The USD 10 million, 4-year National Forest Monitoring System Project (*Système National de Surveillance Forestière* - SNSF), which is implemented with support from FAO started in 2017 within the framework of FONAREDD, aims to strengthen national capacity for forest monitoring. The German Government (BMZ and GIZ) has also provided long-term support to sustainable natural resource management and forest protection in DRC, including in the Maniema and South Kivu Provinces (€ 24 million for 2016-2019). The EU has further committed €20 million to protect forests and support biodiversity conservation in the Congo Basin (of which at least €3m is committed to the LT basin), which includes an initiative on strengthening capacity of civil society to combat wildlife crime (2018-2022). The national REDD + investment plan that runs until 2020 has a total budget of about USD 1 billion, of which the Norwegian government has already funded USD 200 million in CAFI funding[5].

In Tanzania, the collective budget allocation for the planning and management of the Muyowosi Game Reserve (MGR) is conservatively estimated at USD 2.8 million for the five-year term of project implementation. The Vice President's Office (VPO) has finalized the National Strategy for Conservation of Lands and Water catchments (2020 – 2025). The proposed budget for the implementation of this strategy is TZS 4.9 billion (~USD 2.2 million), which also covers the target thematic and geographical areas of the Lake Tanganyika basin. It is projected that investments in the MGR and surrounding areas would equate to approximately USD 3.5 million for the five-year term of this project. In addition, the Ministry of Water - through the Lake Tanganyika Basin Water Board (LTBWB) - is implementing the Integrated Water Resources Management and Development Plan for Malagarasi sub-basin. Among the strategic intervention actions is environmental protection and enhancement for the Malagarasi-Muyovosi wetland. It is a ten years Programme (2015 – 2025) with the total investment of TZS 2.5 billion (~USD 1.12 million) from government sources. Of this amount, it is estimated that USD 0.6 million would be directly invested in the conservation and sustainable use of natural resources in the MGR and surrounding area. Key research and monitoring institutions – including the Lake Tanganyika Water Board and Tanzania Fisheries Research Institute – has committed at least USD 980,000 to research and monitoring activities in the Lake and its basin over the five-year term of the project. The UNEP-GEF “Supporting the implementation of integrated ecosystem management approach for landscape restoration and biodiversity

conservation in Tanzania” project (2019-2024, \$11,205,872) will implement integrated landscape management and sustainable landscape restoration practices in the Kigoma region. In 2011, The Nature Conservancy (TNC) and Pathfinder International created a partnership in the Greater Mahale Ecosystem under the flagship of the “Tuungane project”, an integrated conservation and development project in the Kigoma and Tanganyika Districts surrounding Mahale National Park with the aim of maintaining terrestrial and freshwater ecosystem health and improving in critical areas. Total funding for the project from start-up through June 2016 was US\$6.4 million and relevant goals for 2020 include 40% of GME forests will be legally protected with management improved at targeted sites, 23 Co-management Institutions (known as beach management units in Tanzania) legally registered -covering 23 villages of Uvinza District (Kigoma Region) and Tanganyika District (Katavi region)- with 6,000 members empowered to manage communal fisheries and freshwater resources. 10 out of 15 community fish breeding sites demarcated across 30,000 acres and protected with demarcation buoys in the 10 sites. 31 Fisher groups (Community Conservation Banks, COCOBAs) with 800 members (70% women) have been trained in microfinance and do currently own a total savings of TZS 357,000,000 (ca. US\$150,000) of their own small weekly contributions. This was a successful demonstration of the fisheries co-management areas advocated in the SAP. The Wildlife Conservation Society’s Southern Highlands Conservation Program (SHCP) in Tanzania works on an array of projects to protect habitats, species, natural resources and community livelihoods. The SHCP recently began a new initiative, with the financial support of WildAid (estimated at ~US\$100,000/annum), to address human-elephant conflict around Kalambo & Loasi Forest Reserves (and Lwafi Game Reserve in the Rukwa region). The USD 225 million World Bank (WB), IDA-financed *Second Tanzania Water Sector Support Project* (2017-2022), implemented by the Tanzania Ministry of Water and Irrigation, will strengthen the capacity of Water Resources Management (WRM) institutions to improve the water resource knowledge base, including monitoring data and information, for the Tanzanian territory of the lake basin area.

In Burundi, it is envisaged that the OPBE will commit a budget allocation of approximately USD 50,000 to the conservation and sustainable management of natural resources in the Rusizi river catchment area over the course of the five-years of project implementation. In addition, the Rusizi NP has a total government budget allocation of approximately USD 350,000 per annum (projected at ~USD 1.5 m over the five year-term of the project). The USD 30 million WB, IDA-financed project, *Burundi Landscape Restoration and Resilience Project* (BLRRP,), implemented by the Burundi Ministry of Environment, Agriculture and Livestock and the Ministry of Finance, Budget, Cooperation and Economic Development, seeks to restore land productivity – through improved planning, active restoration, adoption of more sustainable land management and agricultural practices and more effective protected area management - in targeted degraded landscapes across the country, including the Rusizi/Kivu water catchment area. Further, the Government of Burundi’s seven-year *Ewe Burundi urambaye* programme has an annual budget of USD 541,500 for the afforestation projects across the country, including in the Rusizi/Kivu water catchment area.

In Zambia, the Zambia Environmental Management Agency has an annual budget of ~ USD 43 million, of which at least USD 1 million is committed to the sustainable management of the Lake and its basin area (~USD 5 million over the five-year term of the project). The national government – through key state institutions and statutory agencies (e.g. National Institute for Industrial and Scientific Research, Agricultural Research Institute, National Scientific and Technological Centre) – further invests at least USD 0.98 million per annum (USD 4.9 million over the five-year time frame of the project) to research and monitoring activities in and around Lake Tanganyika and its basin area. A USD

100 million WB, IDA-financed project *Transforming landscapes for resilience and development in Zambia* is currently under preparation. The project seeks to improve natural resource management in select districts - including the Nsama district within the lake basin area - in the Northern Province. It will support sustainable livelihood development in these districts through the adoption of sustainable land management practices, improved agricultural technologies, development and restoration of community-managed forests and improved management of protected areas (notably the Nsumbu National Park/Mweru Wantipa National Park/Lusenga Plain National Park/Tondwa Game Management Area Landscape). The TNC also identified the Nsumbu National Park area to replicate fisheries co-management activities successfully implemented in the Tuungane Project in Tanzania. This is currently taking place through a partnership between TNC and Frankfurt Zoological Society's Nsumbu Project. The USD 16,227,196 ADB-financed *Lake Tanganyika Development Project* (LTDP 2015-2021) is currently under implementation in the Mpulungu and Nsama districts of Zambia. The project is promoting sustainable and equitable management and use of the lake's natural resources and helping improve the livelihoods of local communities through the strengthening of market linkages and building of fisheries value chains. The project will also promote the wider adoption of sustainable land, forest, and water management practices and technologies to reduce land degradation, deforestation and increase agricultural production.

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

The proposed alternative scenario is built around the Theory of Change diagram and narrative set out in Annex E. In line with the proposed Theory of Change, the project will be implemented at two spatial scales;

(i) at the **regional scale** of Lake Tanganyika the project will initiate the process of building a network of community-based *co-managed fisheries areas* in the key fish biodiversity areas of the littoral zone of Lake Tanganyika. The strategic focus of GEF support for fisheries co-management in the four riparian countries will be on strengthening the capacities of, and building collaboration and co-operation between, the LTA, government fisheries institutions and the local fishing communities[6] in order to minimize resource use conflict, improve good governance and encourage proactive leadership on the conservation and management of fisheries resources.

(ii) at the **local scale** of the selected Protected Areas (PAs), and their buffer zones, in each of the three participating riparian countries (Burundi, DRC and Tanzania)[7], the project envisages the participative implementation of a suite of complementary management interventions within each targeted PA to address the key threats and barriers to the conservation and sustainable use of the lake and its basin area. Fundamental to the outputs and activities to be implemented in each of the PAs is the underlying premise that, by meaningfully involving communities in the management and control of the natural resources of the protected areas and their buffer zones, and then supporting households within

these communities to sustainably increase their productivity and incomes from these natural resources, this will provide sufficient incentive for those communities to continue to invest in the long-term stewardship of these protected areas beyond the term of the project.

#### *Component 1. Addressing identified transboundary threats to lake biodiversity*

Co-management is currently one of the favoured approaches to fisheries management worldwide as it brings on board stakeholders, more importantly, fishing communities, to participate in the decision-making process for fisheries planning and management. This approach has been tried in the Indo-Pacific Island countries like Indonesia, Malaysia, and other Far East countries, and the results are promising. Fisheries co-management approaches have also been implemented in many African countries like Gambia, Senegal, Mozambique, Malawi and the Lake Victoria riparian countries (Kenya, Uganda and Tanzania), with varying degrees of success.

In an attempt to strengthen co-management in Lake Tanganyika, the LTA has recently coordinated the development of detailed, harmonized *Guidelines for the formation of Co-management Institutions (CMIs) and Co-Management Institutions Networks (CMINs)* (2016). A number of fisheries management committees (*Comités de Pêcheurs*) currently control illegal fishing practices at fish landing sites in Burundi. The Federation of Fishermen and Fish Suppliers (*Fédération de Pêcheurs et Fournisseurs du Poisson au Burundi* [FPFPB]) coordinates the activities of these fisheries management committees. In the DRC, there is a system of Fishers' Committees (*Comités de Pêcheurs* [CdP]), but they still have weak links to government and limited capacity. In the southern part of Lake Tanganyika in Tanzania, a number of pilot community-based Beach Management Units (BMUs) have been established and have developed local Fisheries Management Plans (FMPs) and By-laws. The implementation of BMU Networks in Tanzania follows the existing administrative structures (ward, district, regional) established by Local Government Authorities. The Zambian fisheries legislation provides for the establishment of Fisheries Management Committees (FMCs). These FMCs also provides the linkage from the fishery level to the national and regional structures for fisheries management and governance in Zambia.

In **Component 1**, the project will use the lessons learnt from these riparian countries (notably the community-based BMUs in the southern part of Tanzania) in establishing new community-based co-management fisheries areas (1-2 in each riparian country) in sites of high fish biodiversity in the littoral zones of the lake. In Tanzania, prospective co-management areas have been identified to the north and south of Mahale Mountains National Park. In Zambia, the Nsumbu National Park area has been identified as a prospective site for fisheries co-management building on the activities initiated by TNC and the Frankfurt Zoological Society. In DRC and Burundi, the prospective co-management areas will however only be identified during the PPG. The project will then strengthen the capacities of the CMIs in these newly established community-based co-managed fisheries areas to develop, implement and enforce use zones, fisheries management plans, fish conservation and sustainable fisheries management practices. Finally, the project will support the

LTA, in collaboration with national fisheries institutions, to build a lake-wide CMIN that could further contribute to protect and restore critical fish habitats of the lake, strengthen trans-boundary fisheries governance and improve inter-institutional cooperation in fisheries management. In identifying and developing co-management fisheries areas, a focus will be placed on the main commercially important species, including *Stolothrissa tanganyicae*, *Limnothrissa miodon* and *Lates stappersii*. In this context, it is important to note that each riparian country has already established a national fisheries committee. Based on the national fisheries committees, the project will establish a regional working group on fisheries under the LTA framework, under which coordination of application of the LTA co-management insitutions guidelines, exchange of co-management areas and institutions and harmonisation of national fisheries policies will be discussed. This working group will be maintained by LTA during and after the project. During the project at least two conferences of co-management areas will be organised to promote exchange of their experiences and facilitate networking and the adoption of best practice among the involved co-management institutions.

Work under this component will, at the trans-boundary scale, address the following strategic actions identified in the SAP:

Strategic Component	Strategic Actions	Priority
<i>B. Sustainable Fisheries</i>	Obtain baseline data on present and potential littoral fisheries	Very High
	Establish standards for acceptable practices, including appropriate fishing gears, optimum mesh sizes and fishing quotas.	
	Review and update fisheries licensing procedures	

	Protect critical habitats	
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In Output 1.1 and 1.2, and in line with Management Objective 3 and 4 of the FFMP (2020), the project will identify prospective sites for, and the level of community interest in, the establishment of new community-based fisheries co-management areas in each of the four riparian countries. For each final selected new fisheries co-management area, the project will then support (through professional, technical, equipment and infrastructure assistance) the co-management partners in: (i) the formation, registration and administration of a CMI (the institutional structure of the CMI will aligned with the country-specific enabling legislation and policy); (ii) the collation and collection of the baseline (e.g. fish habitats, fish stock levels, fish breeding and nursery areas, fish catch levels, threats to fish stocks, socio-economic profile of fisheries-dependent communities, etc.) state; (iv) the consultative preparation of a local fisheries management plan, including use zone mapping; (v) the demarcation (e.g use of buoys) of the seasonal and permanent use zones (notably the no-take, protected areas); (vi) the enforcement of use zones (notably the protected zones) and sustainable fisheries regulations (notably catch numbers and fishing practices); (vii) the monitoring and reporting of fish catches; and (viii) the monitoring of changes (improvements) in the baseline state of the fisheries resources.

In Output 1.3 and 1.4, and in line with Management Objective 4 of the FFMP (2020), the project will: (i) strengthen the capacity of the national fisheries institutions to support the establishment of CMIs, develop fisheries management plans for co-management areas, collect an collate baseline data for co-management areas, enforce fisheries regulations in co-management areas, enforce no-take zones in co-managed areas, monitor changes in the baseline state of co-managed areas, and establish and maintain a national network of CMIs; (ii) strengthen the capacity of the LTA to design, develop and implement a transboundary network of CMIs, collate and maintain information on the state of fisheries resources in the lake-wide CMIN; strengthen the enabling transboundary regulatory and policy framework for CMIs and CMINs and facilitate fund-raising efforts to support the ongoing development of local CMIs and national and lake-wide CMINs.

*Component 2. Protection of core conservation zones in three protected areas*

In **Component 2**, the project will contribute to conserving the bio-physical integrity of the freshwater and terrestrial core conservation zones[\[8\]](#) in three protected areas, comprising about 208,000 ha in the Itombwe Natural Reserve (INR) in the DRC; 335,775 ha of the Muyowisi Game Reserve (MGR) in Tanzania; and 10,000 ha of the Rusizi National Park (RNP) in Burundi.

IW funding under this Component is directed to the reduction of sediment output from these PAs by strengthening the management capacities of the responsible authority to control illegal activities and land encroachment. The funding is also be used to monitor the sediment yield entering the nearby aquatic system from these protected areas in line with lessons learned from previous projects.

Work under this component will, at the individual country level, address the following strategic actions identified in the SAP (and the aligned NAPs):

Strategic Component	Strategic Actions	Priority
<i>A. Adaptation to Climate Change Impacts</i>	Improve management of river courses	Very high
<i>C. Sustainable Land Management</i>	Promote widescale reforestation (and afforestation), particularly in erosion-sensitive sub-catchment areas	Very high
<i>D. Critical Habitat Protection, Restoration and Management</i>	Enhance capacity for monitoring and law enforcement in protected areas	High
	Enhance institutional capacity for adequate parks management	
	Improve demarcation of protected areas	
	Increase community involvement in critical habitat protection to promote benefit sharing and improve livelihoods	
	Promote community participation in control of invasive species	

In Output 2.1 and in line with the SAP strategic component D, the project will strengthen the park/reserve management capacities of the responsible management authority to monitor and control illegal activities (hunting, fishing, logging, poaching, grazing, mining, etc.) and land encroachment (settlements, mining, agriculture, etc.) occurring in the core conservation zone of each targeted protected area.

<i>Activity</i>	<i>INR</i>	<i>MGR</i>	<i>RNP</i>
(i) Strengthening the patrolling and enforcement capabilities (staffing, equipment, skills, training and infrastructure) of the responsible management authority to monitor and control illegal activities (hunting, fishing, logging, poaching, grazing, mining, etc.) and land encroachment (settlements, mining, agriculture, etc.) occurring in the core conservation zone	<b>X</b>	<b>X</b>	<b>X</b>

In Output 2.2 and in line with the SAP strategic components A and C, the project will contribute to mitigating and monitoring the impacts of sedimentation by restoring and rehabilitating key ecosystems and habitats in the core conservation zones of each targeted protected area. Depending on the idiosyncrasies and needs of each protected area, this will include:

<i>Activity</i>	<i>INR</i>	<i>MGR</i>	<i>RNP</i>
(i) Restoring and stabilising degraded, compacted and eroded wetlands, rivers and river banks in the core conservation zone	<b>X</b>	<b>X</b>	<b>X</b>
(ii) Rehabilitating and restoring degraded forest and grassland areas	<b>X</b>		<b>X</b>

### *Component 3. Sustainable natural resource use in three protected areas and their buffer zones*

In **Component 3**, the project will pilot the adoption of more sustainable natural resource harvesting and agricultural practices in the buffer zones of the three protected areas in order to evaluate the efficacy of these practices in reducing the pressure (for land and natural resources) on the core conservation zones of these protected areas. The following

pilot areas have preliminarily been identified: the *Corridor de la Grande Rusizi*, abutting the *Secteur Delta* and *Secteur Palmeriae de Rukoko*, in Rusizi NP; the refugee camps (Mkugwa, Nduta, Kanembwa, Kalago and/or Mtendeli) adjacent to the north-west boundary of Muyowosi NR; and villages around Nemba in Itombwe NR. The final areas targeted for project support will be determined during the PPG phase, using a participatory approach around villages close to the core conservation area in each country. The focus for strategic interventions under this component is sedimentation control, and this will be achieved through the promotion of agricultural practices that will reduce erosion effects and soil loss. IW funding under this component will be directed towards using lessons learned from previous projects to upscale and monitor sediment control measures in combination with the mentioned interventions. Accordingly, sustainable agriculture will be aimed at specific communities, taking into account local physical, cultural and socio-economic conditions. This approach will then be scaled to other areas based on lessons learnt and through co-financing and new resources mobilized. Work under this component will, at the individual country level, address the following strategic actions identified in the SAP (and the aligned NAPs):

Strategic Component	Strategic Actions	Priority
<b><i>C. Sustainable Land Management</i></b>	Implement demonstration activities to provide incentives for recognizing good practice across levels of society and governance	Very high
	Promote soil conservation and anti-erosive agricultural practices, including establishment of sediment traps, and use of curve levels and terraces	
	Review and promote alternative practices, including rainwater harvesting and irrigation	
	Promote sustainable agroforestry practices	
	Increase community involvement in forestry management activities that promote benefit-sharing and improve livelihoods (e.g. private woodlots, agroforestry)	
	Promote energy-efficient cooking	
	Promote alternatives for fuel wood and charcoal (e.g. recycled briquettes, solar energy, biogas, hydropower)	
	Identify land-degradation hotspots, and prioritize interventions in these areas	

In Output 3.1 and in line with the SAP strategic component C, the project will, in consultation with local communities living in the project-targeted villages in the protected area buffer zones, invest in building the capacities of men and women to more sustainably cultivate/extract natural resources for livelihood purposes. A wide diversity of fuel-efficient

cooking stoves has been successfully piloted in Africa, but they are currently only being used as a small scale in the Lake Tanganyika region. Furthermore, alternatives to fuel wood and charcoal exists, such as organic fuel briquettes, and solar cooking. Large-scale introduction and promotion of fuel-efficient stoves and fuel alternatives could have a significant effect on deforestation rates. The riparian countries have also expressed interest in community-based forest management and afforestation activities, for instance using agroforestry tree and shrub species. Depending on the idiosyncrasies and needs of each targeted village, this capacity building support will be focused on:

<i>Activity</i>	<i>INR buffer zone</i>	<i>MGR buffer zone</i>	<i>RNP buffer zone</i>
(i) Establishment and management of woodlots/plantations	<b>X</b>	<b>X</b>	
(ii) Charcoal production and energy efficient fuel stoves	<b>X</b>	<b>X</b>	
(iii) Beekeeping enterprises	<b>X</b>	<b>X</b>	<b>X</b>
(v) Nursery development (herbs, fruits, nuts, etc.)			<b>X</b>

In [Output 3.2](#) and in line with strategic component C, the project will invest in building the capacities of small-scale crop and fish farmers and pastoralists living in the project-targeted villages in the protected area buffer zones to implement sustainable agriculture practices. Work under this output will be informed by the gender analysis to promote gender equality and GEF funding will be focused towards the implementation of sustainable agricultural practices that will enhance yields, increase productivity, build agricultural resilience to the impacts of climate change and improve household living standards. These sustainable agricultural practices will take into considerations the differentiated roles and needs of men and women and may include minimum tillage, manure application, composting, mulching, cover cropping, crop rotation, rotational grazing, intercropping, increased crop diversity (between and within species), non-destructive HWC measures, and pesticide reduction. The project will facilitate the provision of agricultural extension support services to small-scale local crop and pastoral farmers (men and women) in the project-targeted villages, including *inter alia*: practical advice; local demonstrations of agricultural products and services; open ‘field days’; skills training; and attendance at Farmers’ Field Schools.

Lessons from recent projects indicate that in some areas in the Lake Tanganyika basin, new practices such as the use of animal manure has been successfully introduced. Tree planting programmes are increasingly common providing additional benefits including sustainable wood supply (mainly for firewood and building materials); shade, fruit production and the use of leguminous tree species that can act as an alternative to fertilizers. Other interventions include the promotion of physical conservation structures and improved methods of maintaining soil fertility. There is also a potential for promoting alternative crops or adding value to production, limiting the need for farming expansion.

Examples of value adding activities that are successfully being implemented in the region include bean canning, mango processing, bee-wax processing and crafting of products made from sustainable harvested reed and timber. Specific soil and water conservation initiatives could also be adopted as a part of a wider range of improved farming practices, linked to new opportunities for crops and markets. Depending on the idiosyncrasies and needs of each community in the project-targeted villages , the project may support the procurement and/or installation (through the community-based agricultural collectives, cooperatives or organisations) of the following agricultural equipment, infrastructure and/or materials:

<i>Activity</i>	<i>INR buffer zone</i>	<i>MGR buffer zone</i>	<i>RNP buffer zone</i>
(i) Improved (more productive, traditional, genetically diverse, drought-resistant) seeds and organic fertilisers	<b>X</b>	<b>X</b>	<b>X</b>
(ii) Environmentally friendly water storage and water delivery systems	<b>X</b>		
(iii) Composting and mulching facilities		<b>X</b>	<b>X</b>

#### *Component 4. Transboundary coordination, knowledge management and M&E*

In **Component 4**, the project will seek to improve the coordination between, and information-sharing among, the riparian countries, LTA, donors and other key stakeholders in the implementation and performance monitoring of the SAP and NAPs.

In Output 4.1, the results from the project will be disseminated within and beyond the project intervention zone, through the existing information sharing networks and forums under the LTA. A project website will be established to support this information sharing. The knowledge of the project implemented approaches and measures will be captured within the information system. A community of national practices will be established as part of the environmental monitoring programme. The project will also promote the exchange of the lessons learnt, through participation (as relevant and appropriate) in scientific, policy-based and/or any other networks (including ‘experience notes’) which may be of benefit to project implementation though lessons learned, including on the promotion of gender equality. Sufficient funding (at least 1% of the IW funding) will be committed by the project to supporting information and knowledge sharing within a broader GEF IW community, through supporting adequate participation of the Lake Tanganyika project in relevant activities of IW:LEARN. This will include participation in the biannual IW Conference and in IW-LEARN regional/thematic meetings. In this Component, specific exchange of experiences of the project related activities will be designed and discussed through the IWLEARN with the Lake Edward/Albert fisheries project (LEAF; managed by NELSAP) and the beach management units in Lake Victoria.

In Output 4.2, the SAP will be updated based on the baseline information prior to the project and renewed priorities the riparian countries agree on. Data and information will be collected and collated to indicate the current state of the lake environment and resources, as well as the impacts of human activities within the lake basin on the quality and ecosystems of the lake (a status of the lake report). A series of consultation will be organised among the riparian countries to agree on renewed priorities and developed a set of further action and implementation modalities and means. NAPs will also be revised in alignment with the updated SAP.

In Output 4.3, the project will strengthen the capacity of the LTA to monitor and evaluate the implementation of the updated SAP and NAPs, including a gender equality perspective. This will include supporting the constitution and administration of national NAP M&E coordination committees and a regional SAP M&E steering committee. GEF funding will be used to assist the LTA and national M&E coordination committees and regional steering committee in: (i) updating the regional and national frameworks (including indicators, baselines and targets) for monitoring progress in the implementation of the strategic components of the NAPs and SAP; (ii) collecting and collating monitoring data for the performance indicators; (iii) producing bi-annual progress reports on the implementation of the NAPs and SAP; and (iii) establishing baselines for the lake environment state prior to and the end of the project to demonstrate actual impacts of the SAP implementation on the status of the lake environment and resources.

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

The project is closely aligned with the GEF-7 IW Strategy, Objective 3 (*Enhance water security in freshwater ecosystems*). The project will *Enhance regional and national cooperation on shared freshwater surface and groundwater basins* by: (i) supporting the development of a network of the community-based fisheries co-management areas to improve the state of conservation and sustainable use of fisheries resources in the littoral zones of the lake ecosystems; (ii) reinforcing the capacities of national fisheries institutions and the LTA to support, and cooperate in, the ongoing establishment, development and monitoring of national and lake-wide networks of community-managed co-management fisheries areas; and (iii) strengthening the collaboration and engagement of the LTA, and riparian countries, through IW-LEARN. The project will contribute to *Investments in water, food and environmental security* by (i) supporting the establishment and operationalisation of local community-based co-management fisheries areas and CMIs to promote and regulate more sustainable fisheries management practices in the high fish biodiversity nearshore habitats of the lake; (ii) facilitating the identification and protection of key fish breeding and nursery areas in the community-based co-management fisheries areas; (iii) avoiding sedimentation and erosion through ecological infrastructure and SLM approaches; and (iv) rehabilitating degraded wetland, riverine and forest habitats in biodiversity hotspots in the lake basin.

The project will address the primary transboundary concerns identified by the riparian countries in the form of the SAP and support the implementation of the agreed, regionally harmonized, set of national actions in addressing these transboundary issues. Further to the previous GEF-UNDP project for LT (*Partnership Interventions for the Implementation of the SAP for Lake Tanganyika*), the project will continue to strengthen the capacities of the Lake Tanganyika Authority (LTA) to coordinate the implementation of the SAP for the lake and its basin.

The project will implement the community stewardship philosophy being promoted by the GEF-7 BD strategy - through local community based conservation management - in the buffer zones of the protected areas. It will facilitate the devolution of natural resource use rights to local communities living within these buffer zones, and then build the capacities of these local communities – through cooperative governance models – to fulfil this devolved stewardship responsibility. It will specifically support the following biodiversity mainstreaming interventions in these protected area buffer zones: (i) mainstreaming biodiversity into land use and development planning; and (ii) promoting biodiversity-friendly natural resource harvesting, forestry, agricultural and wildlife use practices.

Under Objective 2 of the GEF-7 BD strategy, the project will address the direct drivers of biodiversity loss by strengthening the capacities of communities, NGOs and government agencies to manage protected areas, particularly the core conservation zones within these PAs. Project support will include the updating of spatial and management plans, strengthening monitoring and enforcement capabilities, building operational management skills and restoring the ecological integrity of habitats.

The project is aligned to the GEF-7 LD strategy through the promotion and diversification of agro-ecological food production systems. It will also seek to restore agricultural productivity, and reduce land degradation, in the targeted protected areas and their buffer zones by improving soil management, increasing soil organic matter content and increasing the vegetation and tree coverage. In addressing extreme poverty as one of the key drivers of land and forest degradation, the project will seek to raise the welfare of local communities in order to reduce pressure on natural resources. It will also strengthen SLM practices by communities, and restore landscapes, using *inter alia*: agro-forestry; farmer-managed natural regeneration; and alternative energy supply technologies.

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

The riparian countries of Lake Tanganyika have made great strides towards conserving the unique freshwater ecosystem. Most notably, they have established the *Convention on the Sustainable Management of Lake Tanganyika* and the Lake Tanganyika Authority. Using this framework, the riparian states have taken various steps to establish conservation

and sustainable development priorities for the lake, as well as implement specific programs to address some threats. The LTA also continues to partner with national governments and various donors to advance environmental quality objectives (important projects/ programs under development are listed in the baseline section above). These baseline investments are critical to addressing issues such as environmental monitoring, environmental education, harmonization of water quality standards, and controlling pollution from wastewater, solid waste and sediment.

At the transboundary scale, the project will further strengthen the institutional capacity of the LTA to enable it to provide more robust leadership in the implementation of the Convention and the SAP. It will enable the LTA to emerge as a more sustainable and self-reliant actor. The project will also systematically seek to improve the coverage and management effectiveness of protected areas of Lake Tanganyika and its basin so that these protected areas can serve as effective tools for conserving the key biodiversity features and ecosystem processes of the lake. GEF support will be instrumental in not only amplifying the ongoing efforts of riparian governments to more effectively manage these protected areas but also in aligning their management with broader land use planning systems, the NAPs and the SAP.

This alternative GEF-supported strategy would thus add value to the baseline by strengthening regional governance of the lake, supporting the promotion of gender equality in the establishment and management of protected areas, aligning land management and resource use decisions in the wider landscape with the needs of these protected areas, and developing regional protocols that specify minimum measures and standards for all contracting parties on the management of protected areas that are critical to the functional ecological integrity of the lake.

6) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF);

Lake Tanganyika is a regional and global commons. The lake and its basin are internationally recognized as a global hotspot of biodiversity - representing some of the most diverse aquatic ecosystems in the world - and renowned for its terrestrial biodiversity and scenic beauty. Finding solutions to the challenges that the lake and its basin experiences, and to restore and preserve its qualities corresponds to the interests of a broad audience well beyond the lake. Already a lifeline asset to millions of people living in the catchment area, Lake Tanganyika holds significant potential of creating additional benefits that the riparian countries can derive from it, provided it is managed prudently, consistently and equitably. By supporting collaborative action among riparian countries to improve the conservation and management of the lake and its basin, the project will generate significant global biodiversity benefits.

The global benefits associated with the International Waters focal area is the cost-effective monitoring of, and implementation of management measures to address, transboundary threats to the nearshore fish biodiversity of the lake through cooperative governance approaches. The project will contribute to the improved conservation of fish and habitat biodiversity of the lake through establishing and operationalising a lake-wide network of community-based co-management areas (covering an area of at least 1,000 ha) that will collectively protect key fish breeding and nursery areas, and improve sustainable fishing management practices, in the littoral zone of the lake. Under the IW FA, the project will contribute to addressing the regional threats (identified in the SAP) to coastal fisheries that are ranked as the highest priority in the SAP. The project will also address other priority threats to the lake, such as sedimentation and pollution.

The global benefits associated with the Biodiversity focal area is the improved management effectiveness of at least 553,775 ha of the core conservation zone (i.e. the high biodiversity value areas) of the targeted protected areas. The global benefits associated with the Biodiversity and Land Degradation focal area is the implementation of sustainable land management practices, and conservation and management measures, in at least 20,000 ha of protected area buffer zones. The interventions in these buffer zones will also result in an improvement in the provision of agro-ecosystem and forest-savanna ecosystem goods and services.

For the IW, BD and LD focal areas, socio-economic benefits will include the reduced vulnerability of at least 5,000 households (comprising 15,000 beneficiaries, of whom 9,000 are women) living in and around the protected areas. The project will further stabilise the populations of iconic rare, threatened and endemic species occurring in the core conservation zones of the targeted protected areas, including the following species: *Gorilla beringei graueri* (CR), *Pan troglodytes schweinfurthii* (EN), *Loxodonta cyclotis* (VU), *Hippopotamus amphibious* (VU), *Balaeniceps rex* (VU), *Bugeranus carunculatus* (VU), *Loxodonta Africana* (VU), *Crocodylus cataphractus* (CR), *Ardeola idea* (EN), *Phoenicopterus minor* (NT), *Circus macrourus* (NT), *Gallinago media* (NT), *Cercopithecus hamlyni* (VU), *Prionops alberti* (VU), *Chrysobatrachus cupreonitens* (EN), *Cephalophus silvicultor* (NT), *Caprimulgus prigoginei* (EN) and *Glareola nordmanni* (NT).

#### 7) innovation, sustainability and potential for scaling up.

With a focus on benefits, the project will seek to deliver innovative approaches that: (i) enable local communities to acquire rights to, or meaningfully participate in, the control, management and use of natural resources in and around the three targeted protected areas of the lake basin and the nearshore zones of the lake; (ii) develop the capacities of these communal rights holders to effectively conserve and manage the natural resources under their stewardship; (iii) develop the capacities of these communal rights holders to improve income and improve their welfare from the sustainable management of natural resources; and (iv) build resilience of these communal rights holders to the effects of climate change, civil conflict and in-migration.

The project will seek to ensure the sustainability and replicability of the already tested fisheries co-management areas in Tanzania. The fisheries co-management areas experience and lessons learnt in Tanzania will be replicated and scaled up in the riparian countries. By supporting and guiding this scaling up of community-based co-managed fisheries area, the LTA can facilitate the collation of information and sharing of knowledge in support of other fisheries co-management areas in the region. The project will establish a LTA-based regional working group on fisheries so that LTA coordination role on co-management activities can be achieved through the regional working group. This Group will be sustained by the LTA even after the project to continue coordination of the fisheries related activities under the LTA umbrella.

This project will incorporate gender-responsive measures to test the efficacy of the following suite of community-based approaches for scaling up across the riparian countries: (a) participation of the fishing communities in the conservation of the co-management areas; (b) empowering communities to participate meaningfully in SLM in and around PAs which will result in greater assertion of rights over natural resources by the local communities and increased incentives to protect them; (c) improving livelihoods of communities living in and around PAs by creating opportunities for jobs and through access to natural resource products; (d) improving smallholders and pastoralists agricultural productivity and resilience in and around PAs; (e) helping secure ecosystem services and enhancing resilience from intact biodiversity within PAs; (e) scaling up sediment control activities within and surrounding the Protected Areas demonstrating highest impacts from previous projects and (f) engaging the private sector as partners in reducing land degradation and improving agricultural productivity in and around PAs.

Across the basin, agriculture and fisheries represent the main livelihoods of the rural population, upon which the society relies. The GEF-financed activities will complement the baseline scenario, following an integrated and participatory approach to conserve biodiversity to improve the delivery of ecosystem services, promote sustainable fisheries management and agricultural practices while enhancing transboundary cooperation, thus ensuring sustainability. Value addition training will improve skills and provide employment particularly to women and youth. The project's participatory approach will enhance ownership of activities and their results by beneficiaries, while institutional and community capacity building and the involvement of local CSOs will contribute to the sustainability of project outcomes.

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[1] Please note that Zambia is only participating in the transboundary components of the project (i.e. addressing trans-boundary threats and transboundary coordination, information management and M&E) and not in the individual protected area components (i.e. protection and sustainable use of targeted protected areas).

[2] The coastal population are, for example, exerting intense fishing pressure, especially in the northern (Burundi) and southern (Zambia) parts of the lake, where the fishable stock of high-valued sleek lates has significantly declined.

[3] The highest biodiversity of the lake is situated in the littoral zones.

[4] Under the EU's 'Regional Programme for the Management of Transborder Water Resources in the Lake Tanganyika Basin' (FED/2018 Decision/ 040-066).

[5] It is estimated that at least USD 10 million has been committed to the LT basin area.

[6] With the active support of relevant donor agencies, NGOs and private sector partners.

[7] Please note that Zambia are not participating in project implementation at the scale of individual protected areas.

[8] These are the intact natural habitats (and associated species, ecological processes and ecosystem services) designated in the Park/Reserve management plan of each PA as the 'core' or 'conservation' use zones.

common property resources such as grazing, forests and water.

#### **1b. Project Map and Coordinates**

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

**Annex A**

#### **Program/Project map and geographic coordinates**

*Figure 1. Lake Tanganyika and its basin*



*Figure 2. Democratic Republic of Congo - Itombwe Natural Reserve and adjacent community forests*



*Figure 3. Tanzania – Muyovosi Game Reserve and surrounding Ramsar wetland*



*Figure 4. Burundi - Rusizi National Park, including the catchment, floodplain and delta*



*Figure 5: Map showing the proposed core conservation zone of the RNP-Delta Sector*

(refer to PIF file uploaded)

*Figure 6: Map showing the proposed core conservation zone of the RNP-Palmeraie Sector*

(refer to PIF file uploaded)

## **2. Stakeholders**

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

**Indigenous Peoples and Local Communities** Yes

**Civil Society Organizations** Yes

**Private Sector Entities** Yes

**If none of the above, please explain why:**

N/A

**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.**

A small technical working group – with gender balanced representation of the riparian countries, key civil society actors, LTA and UNEP – will be constituted to guide and oversee the project preparation activities, including all stakeholder communications and consultations.

A comprehensive gender balanced consultation and participation process will be developed and implemented for the project preparation phase (PPG), targeting the following affected key stakeholder groups: national, provincial and local government (district and ward) institutions; traditional leaders (chiefs, *indunas* and headpersons); community-based natural resource management groups (e.g. Village Action Groups, Community Resource Boards); civil society organisations; private sector partners; and donors, funding agencies and multilateral institutions.

Regular communications with affected stakeholders will be maintained to notify stakeholders of the project preparation process, the progress in project preparation and the opportunities available for bilateral or collective inputs into the project design. A series of consultative visits to, and meetings with community representatives in and around, the targeted PAs will be undertaken to collect evidence-based data, driven by the reality on the ground.

Ongoing technical consultation meetings will be held with the senior management of the national executing agencies to obtain detailed technical inputs into the project design and development phase. Consultative meetings with the representatives of other key baseline projects and initiatives currently implementing (or planning to implement) activities in the lake and its basin will promote gender balanced representation and will be hosted in order to understand the scope of their projects, and to explore possibilities for synergies and collaboration (including additional co-financing).

Stakeholder consultation meetings will promote gender balanced representation and will be hosted in each riparian country (for country-specific interventions) and in Bujumbura (for transboundary-specific interventions) to review the proposed project framework (i.e. outcomes, outputs, activities, budgets and implementation arrangements) and provide the necessary comments on the accuracy, adequacy, cost-effectiveness and practicability of the proposed project interventions. After the draft project documentation is prepared, it will then be circulated to all affected stakeholders for formal review and final comments and inputs. A consolidated stakeholder workshop will finally be convened to present the project documentation for approval and endorsement by all stakeholders.

Refer to annex D for a complete stakeholder table.

### **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).**

Women are intensely involved in the natural resource utilization and agricultural activities occurring in the lake and its basin. Women also play a vital role in regional value chains, including in upstream production of goods and in downstream trade and retailing. Although fishing is predominantly carried out by men across Lake Tanganyika, women are still actively involved in regional value chains, and almost all traders selling fish and agricultural products in the local markets are women.

Nevertheless, Gender and Equality ratings for the riparian countries show a decline between 2005 and 2017 (with the exception of Burundi, that shows improvement). Conflicts in some parts of the Lake have put further pressure on women, resulting in widespread gender injustice made worse by sexual violence or women's lack of access to productive land, often institutionalized by inheritance laws and cultural norms.

In view of these serious challenges, the project will be designed to be consistent with UNEP's Gender Policy and Strategy and with the GEF Policy on Gender Mainstreaming which aims to "promote the goal of gender equality through GEF operations". A gender responsive Rapid Social Assessment (RSA) will be prepared during the project preparation phase. The RSA will analyze gendered roles in production, access to resources and services, and decision-making power and will identify opportunities to promote gender equality and women economic empowerment to address

the differentiated challenges to gender equality and women empowerment across the four riparian countries. It will also analyze the most adequate strategy to integrate relevant gender variables in the regional monitoring programme. Adequate funding will be committed to ensure that gender will be addressed in the project implementation phase. All project components are envisioned to have a positive impact on gender equality and participation through the development and inclusion of specific criteria, indicators and targets in the related project activities. The project will also increase women's voice and participation in community and women's organizations by mainstreaming gender concerns into conservation management, decision-making, business development, and benefit sharing mechanisms.

Preliminary opportunities during the project implementation phase may include *inter alia*:

- Optimizing opportunities for equal employment, training and equipping of men and women as monitoring technicians, field rangers, lead farmers, fire-fighters, construction workers, invasive alien control staff, etc.
- Empowering women as workers and supervisors in the development of agricultural and natural resource use enterprises and in the restoration of degraded habitats.
- Ensuring that women-owned and/or managed businesses participate equitably in the development of agricultural and natural resource use enterprises, and in the procurement of project-funded equipment and technical services.
- Ensuring that the reach of project-funded awareness-raising programmes, sustainable livelihood development support, and skills training will include both (local) male- and female-headed households.
- Ensuring that the reach of any project grant funded financial and technical support will equitably include both male- and female-headed households from the targeted villages.
- Actively assisting women-headed households living in the targeted villages to access: (i) micro-financing for sustainable livelihoods; and (ii) technical and financial support from project grants for improving crop agricultural practices, developing alternative income-generating enterprises, establishing woodlots/ plantations; installing and maintaining alternative energy and fuel technologies, and developing agro-ecological industries.
- Committing dedicated financial and technical support to addressing the significant knowledge constraints in small-scale farmers from women-headed households.

- Providing support to women-headed households in negotiating and securing long-term resource use rights and access to land for small-scale crop and livestock agriculture.
- Advocating for an increase in the number of women involved in the collection of baseline and end-of-project socio-economic, bio-physical and land use data.
- Collaborating with the project-contracted businesses and international experts to continually develop and implement mechanisms which may further strengthen the capacities of local women and women-headed households across the project planning domain.

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

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

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

**generating socio-economic benefits or services for women.** Yes

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

Yes

#### **4. Private sector engagement**

**Will there be private sector engagement in the project?**

Yes

**Please briefly explain the rationale behind your answer.**

The project will actively support the development of collaborative working partnerships between prospective private sector businesses (e.g. tourism operators, fishing companies, agricultural producers), representative community structures and mandated government institutions. The project will promote market linkages for community enterprises, and enhance access to improved seeds and other inputs from agro-dealers and suppliers for small-scale farmers in and around the PAs. The project will further promote the building of

closer links between communities and NGO's/CBOs so that they can support and assist communities in addressing governance issues around resource management, benefit sharing and partnership management.

## 5. Risks

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

Risks	Risk Level	Mitigation Measures
Political instability and civil conflict in parts of the Lake Tanganyika Basin	High	While this risk is undoubtedly difficult to mitigate, the project will follow the following basic risk management steps in responding to this risk: (i) undertake an objective analysis of the contextual risk and understanding of how the project is likely to be affected; (ii) develop and implement a risk-management strategy to mitigate risks to project; (iii) design and implement safeguards to avoid exposure of project and project staff to harm; (iv) maintain strong working relationships with local civil society organizations involved in peacekeeping and with other affected development agencies; (v) temporarily shift the spatial focus of project activities to non-conflict areas; (vi) sustain remote project support to conflict-affected areas; and (vii) monitor the contextual risk and review and update the risk management strategy accordingly.
The LTA and national, provincial and local government institutions do not have the resources or capacity to support the implementation of project activities	Moderate	The project will contribute to strengthening the capabilities (skills and knowledge, equipment, technologies, etc.) of the key responsible institutions to better enable them to fulfil their mandated responsibilities. Close coordination and discussions will be maintained between the LTA Secretariat, National Focal Points, and the LTA Management Committee to address any resource or capacity constraints as identified by relevant capacity needs assessments. The project will, during project implementation, iteratively develop an institutional sustainability plan for the LTA and key government institutions to ensure that the different project investments -including on institutional/individual capacity building- are maintained (and scaled-up, where feasible) beyond the term of the project. The project will seek to secure an explicit commitment (with linked resource allocations) from the LTA and the supporting government institutions of the riparian countries to sustain the day-to-day management of the PAs, and fisheries co-management areas and improve LTA's role as the regional bodies to share the experiences in PA management and fisheries co-management.
There is a lack of commitment by the LTA and responsible government institutions to sustain project investments beyond the project life (i.e. after project completion, some project-supported interventions may stop).		
Reluctance of riparian states to share information with each other and with the LTA Secretariat	Low	Discussions will continue during the regularly held Conferences of Ministers. The Convention on Sustainable Management of Lake Tanganyika provides a legal framework for information sharing. Through the cross-country dialogue promoted by the project, the benefits of data sharing will be continuously highlighted.

Risks	Risk Level	Mitigation Measures
Challenges in law enforcement in core conservation areas through deployment of field rangers in DRC	Moderate	Potential use of force and human right violations will be mitigated by limiting deployment of field rangers only within core conservation areas, regular (3-6 months) refresher trainings on HR and use of force, also in affected villages, special attention placed at recruitment, including pshychological tests.
Extreme changes due to climate change	Low	Project activities have been designed to explicitly address vulnerabilities to climate hazards. The project will provide diversified livelihood alternatives to enhance adaptation and resilience; reduce over-dependence on natural resources; and mitigate GHG emissions from agriculture, forestry, and other land uses. Project support to GAP and CSA - such as agroforestry, Conservation Agriculture, and Integrated Soil Fertility Management practices - will strengthen farmers' capacity to adapt to climate change and risks and mitigate yield loss and variability. Project support to sustainable use of natural resources will further improve the management and conservation of these resources, create income opportunities that enhance adaptation and resilience, strengthen food security and generate carbon benefits. The risks of climate change on the impacts of fisheries resources will be considered in the design and development of national and lake-wide CMINs.

## 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 project will be implemented by UN Environment, in partnership with the relevant ministries of the participating riparian countries and the LTA (the 'project executing partners').

UNEP – through its GEF Task Manager (TM) and Funds Management Officer (FMO) - will monitor the implementation of the project, review progress in the realization of the project outputs, and ensure the proper use of GEF funds. The UNEP TM will be directly responsible for: (i) providing consistent and regular project oversight to ensure the achievement of project objectives; (ii) liaising between the project and the GEF Secretariat; (iii) ensuring that both GEF and UN Environment policy requirements and standards are applied and met (i.e. reporting obligations, technical, fiduciary, M&E); (iv) approving budget revisions, certifying fund availability and transferring funds; (v) organizing mid- and end-term evaluations and reviewing project audits; (vi) providing technical, legal and administrative guidance if requested; and (vii) certifying project operational completion.

The Lake Tanganyika Authority (LTA) will be responsible for the overall project coordination and reporting and will be accountable to UN Environment for the disbursement of funds and the achievement of the project objective and outcomes, according to the approved overall project work plan. The LTA would also be directly responsible for the

implementation of the project activities at the spatial scale of the Lake Tanganyika Basin. The designated national government agencies from each participating riparian country would be directly responsible for the implementation of the project activities at the spatial scale of the PAs in their country. For example, each riparian country has already established a national committee of fisheries. During the project a regional working group on fisheries will be established under the LTA framework. The working group will be tasked with regional networking of co-management institutions and exchanges among the co-management fisheries areas and regional harmonization of fisheries policies. This mechanism will be sustained by LTA even after the project. Furthermore, the project will reinforce the capacity of the LTA in the project management and management of financial resources. Actual modality of such capacity building will be designed during the PPG.

The LTA will form a small *Regional Coordination Unit* (RCU)[1] to provide the overall strategic oversight and guidance to project implementation. The RCU will be responsible for: (i) preparing the overall project work plan; (ii) overseeing project execution in accordance with the project results framework and budget, the agreed project work plan and reporting requirements; (iii) implementing technical regional project activities; (iv) ensuring technical quality of products, outputs and deliverables; (v) certifying project reports prior to submitting these to UNEP (including progress, financial and audit statements); and (vi) ensuring ongoing coordination with all other relevant regional projects and other initiatives. The LTA will formalize an MOU with each of the ministries of the participating riparian countries which clearly defines the different roles and responsibilities of each country in project implementation to ensure that the project will collectively produce the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

Each participating riparian country will establish a national structure (e.g. a *National Coordination Unit*, NCU) led by its respective executing agency to fulfil its responsibility for the coordination of all project activities in-country. Project implementation will be integrated in existing national institutions, including focal points for the Convention, those in charge of the respective protected areas, and key sectors such as agriculture, fisheries and livestock with support from a range of partner organizations including TNC, IUCN, regional and local research institutions and CSOs, thereby providing the systemic capacity needed for sustaining and scaling up the initiative. The day-to-day administrative roles and responsibilities of this NCU will include: (i) preparing annual budgets and work plans; (ii) managing project expenditure in line with these annual budgets and work-plans; (iii) recruiting staff, specialist support services, and procuring equipment and materials for the project; (iv) coordinating and implementing technical project activities; (v) producing quarterly expenditure and six-months cash advance requests; (vi) reporting to the RCU on project delivery and impact; and (vii) liaising and working closely with all partner institutions to link the project with complementary national and local programs and initiatives.

A Project Steering Committee (PSC) will be constituted to serve as the project oversight, advisory and support body for the project. The final composition of the PSC will be determined at the Project Inception Workshop but will include representatives of the national executing agencies and relevant partners in the riparian countries such as civil society organizations. The PSC will ensure that the project remains on course to deliver the desired outcomes of the required quality. The PSC provides overall guidance and

policy direction to the implementation of the project and provides advice on appropriate strategies for project sustainability. The PSC will play a critical role in project monitoring and evaluation by quality assuring the project processes and products. It advises on any conflicts within the project or to any problems with external bodies. The PSC would be hosted by the LTA and hold regular PSC meetings (at least twice per annum).

In accordance with procurement procedures, the project executing partners may in turn choose to outsource some of their project implementation responsibilities to service providers, NGOs, CBO's or other public institutions.

The project will seek to collaborate closely with the WB, IDA-financed projects, *Burundi Landscape Restoration and Resilience Project* (BLRRP), and *Regional Great Lakes Integrated Agriculture Development Project* (PRDAIGL 2017-2022) in the implementation of the conservation and sustainable agriculture outputs under Components 2 and 3 of the proposed GEF project in Burundi and DRC. For example, during the PPG, the opportunities to improve access to agricultural markets and to agricultural business support services for the small-scale crop and livestock farmers in the project areas will be identified and developed in consultation with the PRDAIGL. Similarly, the project will seek to collaborate with other relevant projects identified in the baseline scenario such as the EU's LATAWAMA and TNC and LTA's Lake Tanganyika Freshwater Atlas during PPG to inform project components, particularly component 1 and 4. The project will seek to collaborate with the EU-funded ECOFISH project, which is about to be launched at the time of the PIF submission. Within this project LTA will be mandated to coordinate regional activities for the ECOFISH and in this LTA function, LTA will ensure collaboration between the present project, particularly Component 1 and the ECOFISH. Further details of collaboration modalities will be designed during the PPG. The project will build on the results of the Tuungane project funded and implemented by the TNC under the framework of the previous GEF project. The project intends to extend the Tuungane fisheries co-management activities to nearby areas or other areas in Tanzania. TNC and Frankfurt Zoological Society are moving towards the replication of the Tanzania fisheries co-management activities near Nsumbu National Park, which will serve as baseline for this project. Under this project, this site will be designated as one of the Zambia co-management site under Component 1 subject to further consultation with the Zambian Government and local communities during PPG.

The project will apply lessons and share experiences with the fisheries refugia activities of the other GEF projects, such as establishing and operation of a regional system of fisheries refugia in the South China Sea and Gulf of Thailand and the Coastal Fisheries Initiative. As described under Component 4, the project will have exchange with the GEF/AfDB Lake Edward/Albert fisheries project and the experiences of the beach management units generated for Lake Victoria.

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[1] The LTA may contract the services of an NGO or NPO to fulfil the role of the RCU.

## 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**

This project is regionally nested within the programmatic framework of the *Strategic Action Plan (SAP) for the Protection of Biodiversity and Sustainable Management of the Natural Resources in Lake Tanganyika and its Basin* (2012). The project will support the implementation of the SAP and will, through the relevant ‘Strategic Components’, contribute to meeting the following ‘Environmental Quality Objectives’ (EQO) of the SAP: (i) ‘Fish stocks are healthy and adequately managed to sustain future exploitation; (ii) ‘Erosion and sedimentation rates are reduced through sustainable land management practises’; (iii) ‘Critical habitats are protected, restored, and managed for conservation of biodiversity and sustainable use’; . At a national level, the project is fully aligned with each riparian country’s *National Action Plan/ Plan d’ Action National* (NAP) for the implementation of the SAP.

The project will assist the riparian states in meeting their national targets under Strategic Goals A (‘Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society’), B (‘Reduce the direct pressures on biodiversity and promote sustainable use’) and C (‘Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity’) of the following NBSAPs: Burundi -*Stratégie Nationale et Plan d’Action sur la Biodiversité* (2013-2020); DRC - *Stratégie et Plan d’Action Nationaux de la Biodiversité* (2016-2020); Tanzania - *National Biodiversity Strategy and Action Plan* (2015-2020); and Zambia – *Second National Biodiversity Strategy and Action Plan* (2015-2025).

The project will support the mainstreaming of the sustainable land management approaches described in the following NAPs of the riparian countries: Burundi – *Stratégie Nationale et Plan d’Action pour la lutte contre la dégradation des sols* (2011-2016); *Programme d’ Action National de lutte contre la terres et la deforestation* (2016); Tanzania – *Guidelines for mainstreaming National Action Programme to combat desertification into sectoral policies and plans*, 2014; and Zambia – *National Action Programme for combating desertification and mitigating serious effects of drought*, 2002).

It will also contribute empirical evidence to the national Land Degradation Neutrality (LDN) initiatives of the different riparian countries (i.e. Burundi - *Cibles de Neutralite Degradation des terres*, 2019; DRC - *Programme de definition des Cibles de Neutralite en matière de degradation des terres*, 2018; and Tanzania - *Voluntary Land Degradation*

*Neutrality Targets and Associated Measures*, 2018) by assessing the feasibility and cost-effectiveness of community-based conservation management in achieving land degradation neutrality targets.

Finally, the project will support the implementation of the strategies to sustainably manage the environment, mitigate climate change and improve land use planning contained in the National Development plans of the participating riparian countries (i.e. Burundi - *National Development Plan 2018-2027*; Zambia – *Seventh National Development Plan 2017-2021*; Tanzania – *National Five-Year Development Plan 2016/2017-2020/2021*; and DRC – *Plan National Strategique de Developpement 2018-2022*).

## **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.**

Under Component 1, a regional working group on fisheries will be established under the LTA framework, which will be tasked with regional networking of co-management institutions and exchanges among the co-management fisheries areas and regional harmonization of fisheries policies. This mechanism will be sustained by LTA after the project ends. Similarly, best practice on sediment control measures and experiences supported under Components 2 and 3 will be shared among the riparian countries for further uptake and replication on a regional scale. Under Component 4, a Community of National Practices will be established to exchange results and disseminate lessons learnt among the riparian countries. Important information will be made accessible to a range of different stakeholder groups to support better future decision-making processes in the scaling up of conservation and sustainable land management practices in and around the PAs. Further, using the regional information sharing system, the present project will exchange lessons learnt and information with the other counterpart transboundary freshwater lake initiatives. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation through lessons learned. Sufficient funding will be provided by the Project to supporting information and knowledge sharing within a broader GEF IW community through supporting adequate participation of the LTA and representatives of the riparian countries in relevant activities of GEF IW: LEARN (at least 1% of the project budget will be allocated for pertinent activities).

### 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
Ir. Emmanuel Ndorimana	Permanent Secretary/ GEF Operational Focal Point	Ministry of Environment, Agriculture and Livestock, Burundi	10/23/2019
Ir. Godefroid Ndaukila Muhinya	Director/ GEF Operational Focal Point	Ministry of Environment and Sustainable Development, Democratic Republic of Congo	3/25/2020
Faraja Ngerageza	Assistant Director/ GEF Operational Focal Point	Vice-President Office, United Republic of Tanzania	11/6/2019
Godwin F. Gondwe	Director/ GEF Operational Focal Point	Environmental Management Department, Ministry of Water Development, Sanitation and Environmental Protection, Zambia	9/16/2019

#### ANNEX A: Project Map and Geographic Coordinates

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

*Figure 1. Lake Tanganyika and its basin*



*Figure 2. Democratic Republic of Congo - Itombwe Natural Reserve and adjacent community forests*



Figure 3. Tanzania – Muyovosi Game Reserve and surrounding Ramsar wetland



Figure 4. Burundi - Rusizi National Park, including the catchment, floodplain and delta



Figure 5: Map showing the proposed core conservation zone of the RNP-Delta Sector

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Figure 6: Map showing the proposed core conservation zone of the RNP-Palmeraie Sector

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