GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title	
Integrated Landscape Management for Sustainable Ecosystem Services and Community Livelihoods in Wami-Ruvu River Basin	
Region Tanzania	GEF Project ID 11407
Country(ies) Tanzania	Type of Project FSP
GEF Agency(ies): UNEP	GEF Agency ID N/A
Executing Partner Ministry of Water Co-execution by responsible partners i.e Global Water Partnership Tanzania; Wami Ruvu Basin Water Board and Vice Presidents Office	Executing Partner Type Government Others
GEF Focal Area (s) Multi Focal Area	Submission Date 10/18/2023
Project Sector (CCM Only)	

Taxonomy

Sustainable Land Management, Land Degradation, Focal Areas, Restoration and Rehabilitation of Degraded Lands, Sustainable Forest, Sustainable Livelihoods, Ecosystem Approach, Integrated and Cross-sectoral approach, Land Degradation Neutrality, Carbon stocks above or below ground, Land Cover and Land cover change, Gender Mainstreaming, Gender Equality, Beneficiaries, Sex-disaggregated indicators, Gender-sensitive indicators, Access and control over natural resources, Gender results areas, Awareness Raising, Knowledge Generation and Exchange, Capacity Development, Convene multi-stakeholder alliances, Influencing models, Demonstrate innovative approache, Local Communities, Stakeholders, Civil Society, Non-Governmental Organization, Type of Engagement, Consultation, Participation, Information Dissemination, Partnership, Communications, Behavior change, Knowledge Generation, Capacity, Knowledge and Research, Innovation, Biodiversity, Protected Areas and Landscapes, Productive Landscapes, Terrestrial Protected Areas, Mainstreaming, Agriculture and agrobiodiversity, Biomes, Tropical Dry Forests, Financial and Accounting, Payment for Ecosystem Services, Climate Change Mitigation, Climate Change, Agriculture, Forestry, and Other Land Use, Knowledge Exchange, Adaptive management, Learning, Theory of change, Indicators to measure change, Transform policy and regulatory environments

Type of Trust Fund GET	Project Duration (Months) 60
GEF Project Grant: (a) 5,329,452.00	GEF Project Non-Grant: (b) 0.00
Agency Fee(s) Grant: (c) 506,298.00	Agency Fee(s) Non-Grant (d) 0.00
Total GEF Financing: (a+b+c+d)	Total Co-financing

5,835,750.00	27,893,250.00
PPG Amount: (e) 150,000.00	PPG Agency Fee(s): (f) 14,250.00
PPG total amount: (e+f) 164,250.00	Total GEF Resources: (a+b+c+d+e+f) 6,000,000.00
Project Tags CBIT: No NGI: No SGP: No Innovation: No	

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B "project description".(max. 250 words, approximately 1/2 page)

The Wami-Ruvu Basin (WRB) in eastern Tanzania is a biodiversity hotspot, encompassing an array of ecosystems that provide habitats for a wide range of flora and fauna, as well as providing regulating services which play a vital role in Tanzania's water security — not only sustaining the needs of major urban hubs such as Dar es Salaam, Dodoma and Morogoro, but also providing water for rural populations, agriculture, industries, and the overall ecological balance of the region. However, the impacts of land degradation and climate change are placing considerable stress on the basin's biodiversity and water resources. Of particular concern is the extensive degradation across the Eastern Arc Mountains — which not only form part of the Eastern Afromontane Biodiversity Hotspot, but also serve as water towers for the WRB — and sensitive inland and coastal wetlands which play a critical role in regulating the hydrology and provide important habitat for waterbirds and wildlife. As land becomes degraded and water resources are impacted, communities are adopting maladaptive coping mechanisms that further degrade ecosystems, creating a vicious cycle of degradation and biodiversity loss. While the resulting impacts on ecosystems and water resources are largely cross-cutting, they are felt most strongly among the agropastoral communities that rely on climate-sensitive natural resources for their livelihoods.

The proposed project will safeguard biodiversity and halt land degradation in the WRB through sustainable land management (SLM) and rehabilitation of agroecosystems. This will be achieved through (i) building technical and institutional capacity and improved coordination for integrated watershed management, and (ii) targeted conservation and restoration interventions in areas of importance for biodiversity of global significance. Given the intrinsic link between land degradation, ecosystem services and water resources, the frameworks that govern watershed management in the country are viewed as a key entry-point for addressing land degradation and the associate impacts on biodiversity and carbon emissions in Tanzania.

This will be supported by the provision of improved water supply infrastructure to mitigate the impacts of drought and reduce pressure from cattle and agriculture on the sensitive riparian zone. Communities will be empowered to shift away from maladaptive livelihood practices that further degrade natural ecosystems – with a focus on gender-responsive actions. The long-term sustainability of such measures will be enhanced through innovative financial mechanisms that mobilize public and private investment in the conservation and restoration of critical water source areas. Target outcomes are enhanced biodiversity and ecosystem services, supported by strengthened technical and institutional capacity and knowledge systems. The project will restore 9,000ha of degraded land in key biodiversity areas, improve management practices in 118,747 ha of protected areas and place a further 100,000ha of landscape under improved practices, benefiting 200,000 people (50% female).

Indicative Project Overview

Project Objective

To halt land degradation and conserve biodiversity in the Wami-Ruvu Basin of Tanzania, thereby improving the provision of ecosystem services that mitigate greenhouse gas emissions and regulate critical water resources.

Project Components

Component 1: Creating enabling environment for integrated watershed management in the Wami-Ruvu River Basin

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
450,000.00	4,768,000.00

Outcome:

Outcome 1.1: Wami-Ruvu River Basin Authority has the technical and institutional capacity to sustainably manage land degradation and biodiversity across the WRB under changing climate conditions using integrated approaches.

Output:

1.1.1: Effective coordination platform, hosted by the WRBWB, strengthened to manage cross-sectoral efforts for landscape-scale watershed management in the WRB.

1.1.2: Technical and institutional capacity of staff within the WRBWB, local government agencies and water user associations developed to support the implementation of sustainable land management practices in the WRB.

1.1.3: Enhanced awareness and capacity of local communities, institutions, and stakeholders to sustainably manage natural resources and resolve land use conflicts through gender transformative approaches.

Component 2: Implementation of integrated watershed management measures outside and within selected KBAs and PAs of the WRB

Component Type	Trust Fund
Investment	GET
GEF Project Financing ($)	Co-financing ($)
4,350,669.00	20,660,250.00

Outcome:

Outcome 2.1: Enhanced biodiversity and ecosystem services through the improved management and rehabilitation of mosaic landscape of agro-ecosystems in the Wami-Ruvu Basin.

Output:

2.1.1: KBA and PAs within water catchments areas of the WRB rehabilitated and conserved to enhance biodiversity, improve ecosystem service provision and soil health.

2.1.2: SLM practices, including on-farm agroforestry systems and climate-smart agriculture, improved rangeland management, and establishing pasture fodder banks, promoted in agroecosystems within water catchments areas of WRB to improve agricultural productivity and soil health.

2.1.3: Water supply infrastructure installed at key locations to mitigate the impacts of drought and provide water for agropastoral communities during dry periods and reduce impact of livestock on riverbanks and riparian vegetation.

2.1.4: Diversified gender-responsive community livelihoods and alternative income generating activities to reduce pressure on ecosystems from unsustainable livelihood practices.

2.1.5: Payment for ecosystem services scheme established and operational within the Wami-Ruvu basin to support long-term financing of catchment restoration and conservation efforts.

Component 3: Participatory Monitoring, Evaluation and Knowledge Management

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
275,000.00	1,136,750.00

Outcome:

Outcome 3.1: High-quality knowledge generated, managed and disseminated to enable and promote the scaling of SLM and IWRM practices across Tanzania and the surrounding region.

Output:

3.1.1: IWRM and SLM knowledge management system and scaling strategy established to manage relevant data and disseminate knowledge of good practices on SLR shared among key national and external audiences.

3.1.2: M&E Systems adopted to support participatory Monitoring and Evaluation of the SLM activities.

M&E

Component Type	Trust Fund
GEF Project Financing ($)	Co-financing ($)

Outcome:

Output:

Component Balances

Project Components	GEF Project Financing ($)	Co-financing ($)
Component 1: Creating enabling environment for integrated watershed management in the Wami-Ruvu River Basin	450,000.00	4,768,000.00

Component 2: Implementation of integrated watershed management measures outside and within selected KBAs and PAs of the WRB	4,350,669.00	20,660,250.00
Component 3: Participatory Monitoring, Evaluation and Knowledge Management	275,000.00	1,136,750.00
M&E		
Subtotal	**5,075,669.00**	**26,565,000.00**
Project Management Cost	253,783.00	1,328,250.00
Total Project Cost ($)	**5,329,452.00**	**27,893,250.00**

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

Project Context.

The Wami-Ruvu Basin (WRB), covering a significant portion of the eastern part of Tanzania (Figure 1), plays a vital role in the country's water security, not only sustaining the needs of major urban hubs such as Dar es Salaam, Dodoma and Morogoro, but also providing water for rural populations, agriculture, industries, and the overall ecological balance of the region. The basin also encompasses a diverse array of ecosystems – including evergreen montane cloud forests, lowland evergreen broadleaf forests, deciduous *miombo* woodlands, savanna, freshwater wetlands, and coastal wetland areas – that provide habitats for a wide range of flora and fauna, including endemic and endangered species, and support the country's important tourism industry.

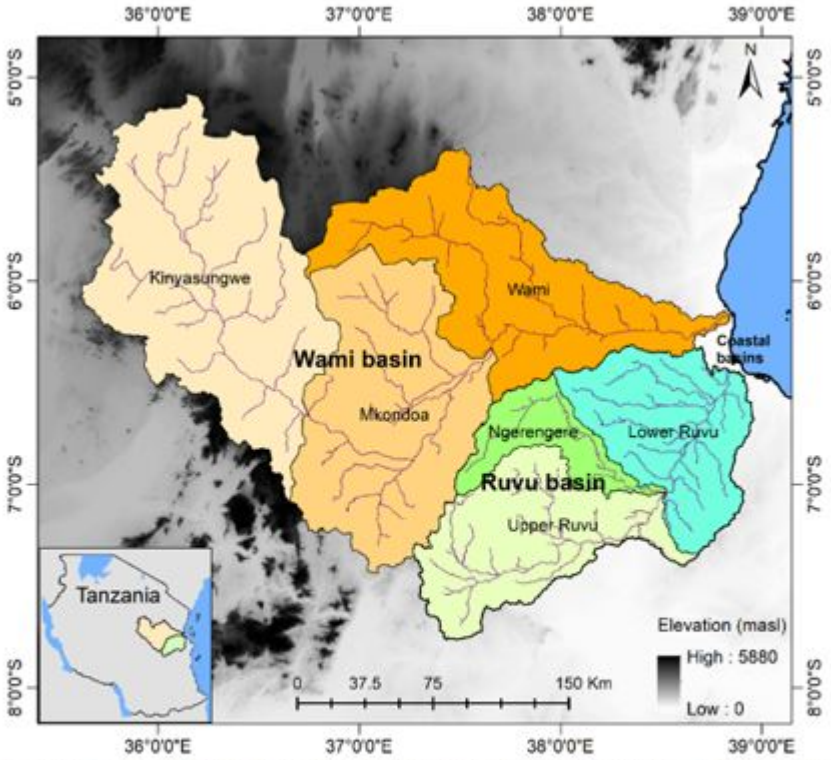

Figure 1: The Wami-Ruvu Basin is located in east-central Tanzania. The basin covers an area of about 66,820 km2, and comprises the Wami River catchment, the Ruvu River catchment, and the Coast River catchments. The Wami River catchment has the Kinyasungwe, Mkondoa, and Wami sub-catchments, and the Ruvu River catchment has the Upper Ruvu, Ngerengere, and Lower Ruvu sub-catchments.

The population demographics of the WRB are heavily influenced by the urban hub around Dar es Salaam in the Coastal sub-basin. When considering the WRB as a whole (including the Wami, Ruvu and Coastal sub-basins), the population appears predominantly urban, with 67% of people living in urban areas as of the last census in 2012 (expected to reach 87% by 2035[1][1]). However, this trend only holds for the Coastal sub-basin, with both the Wami and Ruvu sub-basins skewing towards rural populations (80% and 53% rural, respectively). This high percentage of the rural population, particularly in the Wami sub-basin, has a significant impact on community vulnerability, particularly given the heavy reliance on climate-sensitive, natural resource-based livelihoods – including agriculture, pastoralism, and forest products. According to the World Bank, approximately 64% of the population is employed in agriculture[2][2], with natural resource-based sectors contributing ~25% of GDP in 2021. The agriculture sector in Tanzania is also dominated by smallholder farmers cultivating farms of less than three hectares. Approximately 70% of farming is also conducted using simple tools such as hand hoes, with another 20% using ox ploughs and only 10% using mechanical tools such as tractors[3][3]. Women play an important role agriculture sector, accounting for the majority of the workforce with approximately 90% of rural women woman participating in the sector; however, only 29% participate in the formal economy and only 3% of women have paid jobs, earning on average 35% less than men.

The vulnerability of rural populations is further exhibited in the limited access to water resources for both domestic and agricultural use. For example, only 45% of the rural population has access to safe drinking water,

compared to 75% of the urban population[4][4]. While centralized systems for domestic water supply exist for the areas in and around Dar es Salaam – provided by the Dar es Salaam Water and Sewerage Authority (DAWASA) – and Dodoma – provided by the Dodoma Urban Water Supply and Sanitation Authority (DUWASA) – the coverage of piped water systems does not extend throughout the basin, with access becoming increasingly dependent on drawing water directly from rivers and wells as one moves further upstream. As this water is generally not treated, the use of such water sources increases exposure to waterborne disease as well as other pollutants and sediments that reduce water quality. Women are particularly affected given their traditional household responsibilities for domestic work, including collection of water. Such gendered division of labour in the household starts early, with young girls, even those in school, being expected to shoulder their share of household chores[5][5]. Limited access to water also impacts the agriculture sector, with most smallholder farmers relying largely on rainfed agriculture. Although irrigation is the largest water user in the WRB – accounting for 13% of renewable water resources used compared to less than 9% for domestic, industries, and livestock sectors – irrigation schemes are relatively few in number and have generally low efficiency at 25-30%[6][6]. In addition to the impacts on crop agriculture, water stress is having a notable impact on the livestock sector, particularly for nomadic pastoral communities that traditionally rely on natural pans as a source of water for cattle.

Biodiversity

Tanzania is one of the most bio-diverse countries in the world, hosting more than one-third of the total African plant species and about 20% of the large mammal population. The extent and importance of biodiversity in the country is recognized by the extensive network of Protected Areas (Figure 2) endowed with different species of mammals, birds, amphibians and reptiles, which has a significant contribution in provision of food security, income to communities and revenue to the government [7][7].

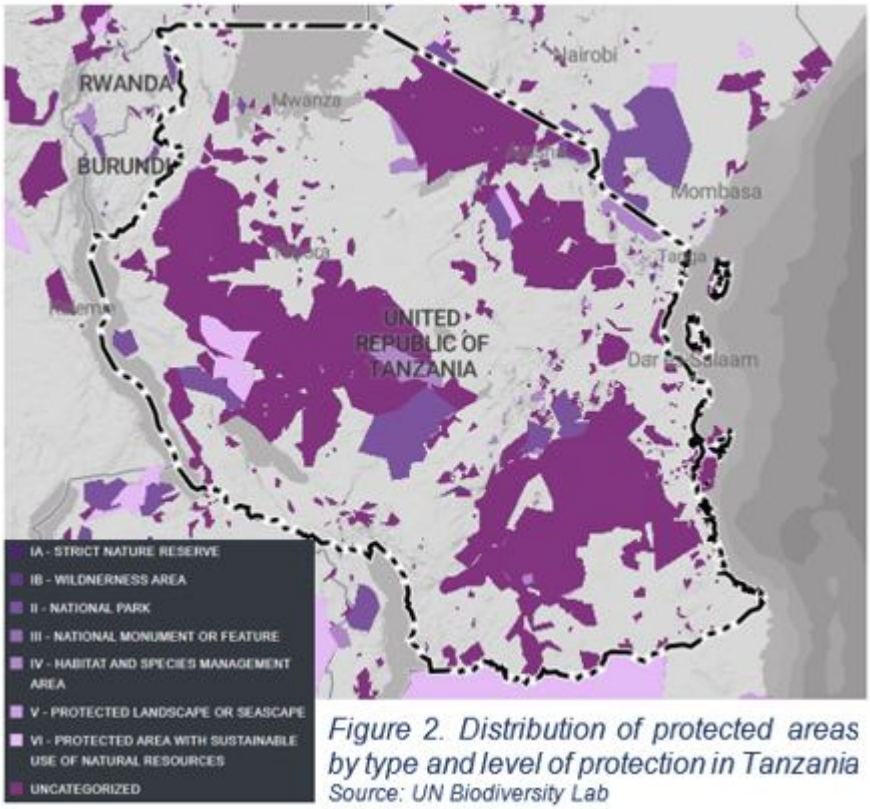

Figure 2. Distribution of protected areas by type and level of protection in Tanzania
Source: UN Biodiversity Lab

The highland areas of the WRB, situated in the Eastern Arc Mountain range – from which both the Wami and Ruvu rivers originate – is categorized by afro-montane forest and is considered one of 25 global biodiversity 'Hotspots'. [8][8] Within the Eastern Arc, at least 96 vertebrate species are endemic, which include 10 mammal, 19 bird, 29 reptile and 38 amphibian species. Moreover, at least 800 vascular plant species are endemic, almost 10% of which are trees. Seventy-one of the endemic or near-endemic vertebrates are threatened by extinction (8 critical, 27 endangered, 36 vulnerable), with an additional seven wide-ranging threatened species. Hundreds of plant species are also threatened.[9][9] Within the Eastern Arc is the Uluguru National Forest Reserve (UNFR)[10][10], which borders the Selous Game Reserve and Nyerere National Park, is an area with high biodiversity and endemism – with ~89 near-endemic plant species reported in the Uluguru Mountains. The UNFR is managed as a protective forest given its high biodiversity value and importance as a critical catchment area for multiple rivers originating in the Eastern Arc Mountains. Non-consumptive use such as eco-tourism and research are allowed to be carried out in a way that will not cause negative impacts to the ecosystem, but other forms of production are restricted. However, some minor extractive uses are allowed for forest adjacent communities which have been using some tree species found in the UNFR during initiation ceremonies, for medicine and for cultural uses. There are a number of forest patches that are recognised as sacred forests and sites used for worshipping (rain-making) ceremonies and rituals. UNFR management issues special permits to ensure that above mentioned uses are not destructive to the forest, including collection of dead wood for firewood, thatching grasses, fodder grasses, vegetables and fruits as mandated by village by-laws. The reserve is buffered by village land used for settlement, farming and other land uses including few remnants of natural forests and farm trees. This includes woodlots and trees planted by communities in forest adjacent communities that provide alternative sources of forest products like building poles, fuel wood, charcoal and timber which are otherwise illegally obtained from UNFR. Agroforestry is also used to enhance productivity of both food and cash crops, as well as supplementing forest cover and patches to provide connectivity to

migrating species in the corridors/buffer zones and provide alternative sources of forest products and services. [11][11]

From the foothills of the Eastern Arc towards the Indian ocean is dominated by thicket and coastal forest. This includes the Zaraninge Forest, situated in the Saadani National Park to the west of the Wami River. Covering an area of over 20,000 ha, the forest hosts several internationally scarce species, including eight mammals, 10 birds, a new species of reptile (dwarf gecko), one amphibian (*Hyperolius parkeri*), an endemic snail and many other species of invertebrates[12][12]. The WRB also hosts a wide array of wetland complexes along its floodplains, including the Tendigo swamps and Wami Dakawa wetlands along the Wami River as well as a major wetland system southeast of the Uluguru Mountains in the upper Ruvu catchment and a network of coastal wetlands in the lower Ruvu catchment. In addition to the critical role these wetlands play in regulating water flow and quality, these wetlands also support large fisheries along with habitat for waterbirds and wildlife. The riparian areas support riverine forests that are extremely biodiverse both in floral and faunal species. The basin is also home to the Ruvu South Forest Reserve (RSFR), which is one of the most extensive areas of coastal forest, woodland and thicket in Tanzania. The reserve is home to at least four Eastern Arc and Coastal Forest endemic vertebrates, and is contained in the Kisarawe District Coastal Forest Important Bird Area hosting a number of rare and low-density forest bird species and 33 plant species endemic to the Swahili Regional Centre of Endemism. Forest loss within the SRFR is occurring at a rapid rate, and a coordinated effort is needed to halt further destruction in the reserve and concomitant loss of fauna and flora of global conservation importance. [13][13]

Two distinct multi-species wildlife assemblages rely on the Wami River, its tributaries and wetlands for their supply of fresh drinking water and high-quality forage during the dry season. The first group comprises giraffes, kongonis, lions, wildebeests, and zebras, and migrates southward towards the Kiyonga wetland and the Wami River as the dry season commences. The second smaller group – consisting of buffaloes, kongonis, reedbucks, waterbucks, wildebeests, and warthogs – moves southward at the beginning of the dry season, initially settling at the Mabumo wetland. From there, they continue their journey to the wetlands within the Zaraninge Forest, following various routes that ultimately lead them to the Wami River in the vicinity of Matipwili village. The Wami River and Saadani National Park also play an important role in elephant movement corridors.[14][14]

The value of biodiversity in Tanzania extends well beyond the tourism value alone, providing multiple ecosystem benefits for the forestry, livestock, agriculture and fisheries sectors. According to the NBSAP, the consumptive, productive and non-consumptive values of biodiversity across these sectors having a combined contribution of ~35% to GDP in 2013. Moreover, biodiversity holds great cultural value to the people of Tanzania, providing distinct social value to cultural practices, customs, religion and psycho-spiritual aspects of many local tribes[15][15].

Despite its high economic, environmental and social value, Tanzania's biodiversity is threatened by land degradation and habitat loss (see section below), overexploitation of plant and animal species, pollution, introduction of invasive alien species, exploration and extraction of oil and gas, climate change and genetic

erosion. For example, ~110 species of amphibian and 22 species of reptiles are threatened with extinction in the Wami-Ruvu Basin, largely due to high rates of water abstraction, deforestation, and water pollution. The Wami-Ruvu Basin Catchment Conservation Plan has identified 11 priority conservation zones across the basin (Figure 3).

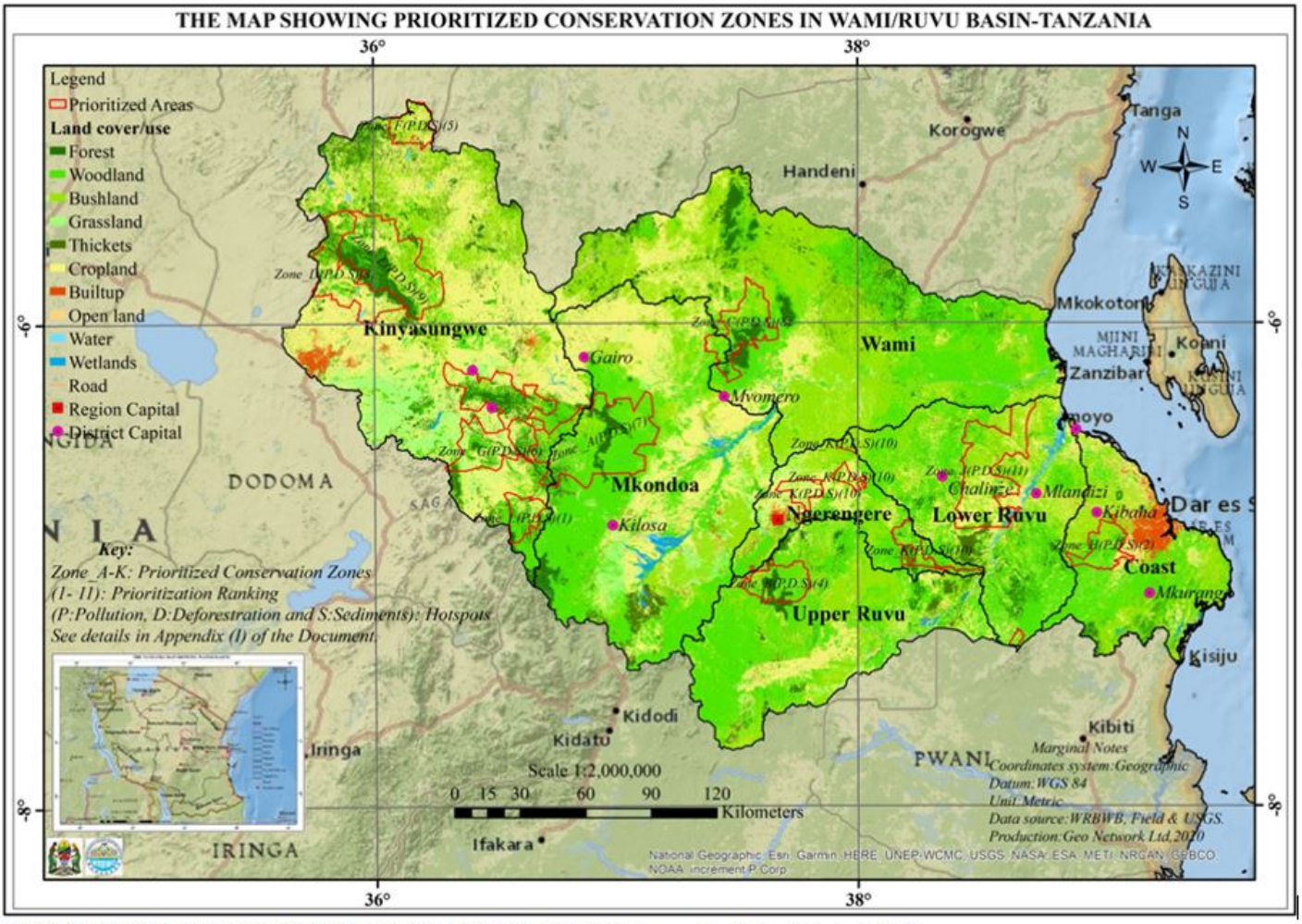

Figure 3. Prioritized Conservation Zones in Wami Ruvu Basin (Source: Geo Network Limited, 2020)

Land degradation

Tanzania has experienced severe land degradation in recent decades, with studies estimating that ~80% of the total land area is degraded as of 2018 – with 46% being moderately degraded and 34% being highly degraded (Figure 4)[16][16]. Such degradation continues to hamper sustainable development in the country. For example, the Regional Centre for Mapping of Resource for Development (RCMRD) estimates that deforestation occurred at a rate of 157,900 ha/yr between 2000 and 2010[17][17], while land use change data shows that crop land has expanded by over 70% and shrubs, grasslands and sparsely vegetated areas have decreased by 7.7% in the same period.[18][18] With respect to the targeted Wami-Ruvu Basin, forest loss is particularly problematic in the Eastern Arc Mountain range – from which both the Wami and Ruvu rivers originate – with ~75% of original forest cover having been lost.

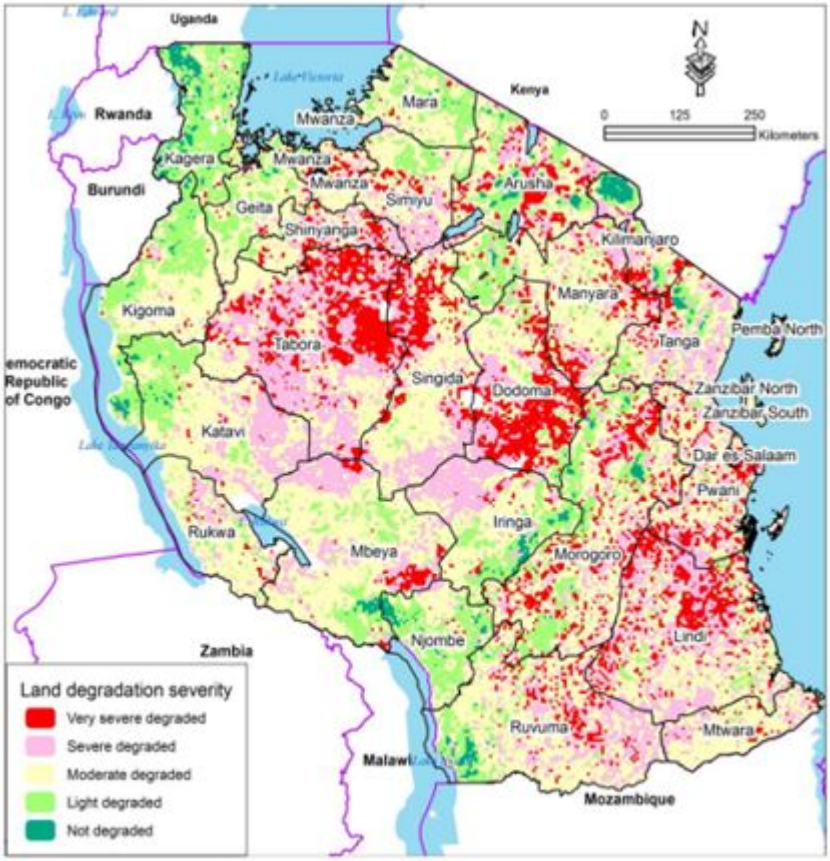

Figure 4: Land degradation hotspot areas in Tanzania
Source: Local LUC overlaid with Global Default Data on LP and SOC (URT, 2018)

There are numerous driving forces – social, economic, or ecological in nature and occurring either gradually or rapidly – underpinning degradation in the county (Table 1), acting either directly or indirectly to cause the deterioration of the natural environment. These degradation processes can have severe impacts on the livelihoods of people who heavily rely on natural resources for their survival, many of which hinge on the effects on water resources. The sustainable supply of water across the WRB is heavily reliant on ecosystem services that regulate the hydrological cycle, as well as providing numerous additional benefits that underpin natural resource-dependent livelihoods. For example, healthy ecosystems decrease surface runoff and increase infiltration or rainwater, thereby reducing erosion and associated loss of fertile topsoil, improving groundwater recharge and baseflow to rivers, and reducing flood risk. As ecosystems are degraded, these critical services are lost, causing a decline in land productivity and biomass production, as well as an increase in risk from climate hazards such as flood and drought. In the WRB, the greatest threats driving forest fragmentation, deforestation and degradation include expanding agriculture, small-scale mining, charcoal production, human settlement (planned and informal), invasive species encroaching on native forests and forest fires mainly resulted from slash and burn agriculture. From the basin visits carried out, severe cases of deforestation due to charcoal demand was witness in areas around cities such as Dar es Salaam, whilst unregulated gold mining was observed along the Ruvu and Wami streams.

The drivers of land degradation are subject to a vicious cycle in which the decline in productivity of natural resource-based livelihoods resulting from the loss of ecosystem services leads to an uptake of maladaptive practices – such as slash and burn agriculture, small-scale mining, and charcoal production – which in turn further perpetuates the cycle of degradation. For example, to compensate for loss of productivity, many farmers expand cropping into forest areas – driving further reduction of forest cover and land degradation, thereby increasing erosion and sediment impacts on water resources. Other maladaptive practices include increasing the use of chemical fertilizers and pesticides – which have implications for the viability of non-target populations, including crop pollinators, as well as decreasing the quality of surface and ground water along

with the resultant negative impacts on downstream delta/marine ecosystems and loss of biodiversity. The combined impact on ecosystems, the services they provide and the decline in water resources creates further decline in agricultural productivity, perpetuating the vicious cycle.

Table 1. Land Degradation Neutrality (LDN) Target Setting Programme Report (2018)[19][19]

Direct drivers of land degradation	Indirect drivers of land degradation
Improper management of the soil	Population pressure
Improper management of annual, perennial, scrub and tree crops	Migration
Deforestation and removal of natural vegetation	Land tenure
Over-exploitation of vegetation for domestic use	Poverty/wealth
Overgrazing and shifting cultivation	Labour availability
Industrial activities, waste deposition	Inputs (including access to credit/financing) and infrastructure
Uncontrolled small-scale mining	Education and training
Urbanisation and infrastructure development	Access to knowledge and support services
Disturbance of the water cycle	Land use conflict (crop producer and livestock keepers)
Over-abstraction of water	Governance, institutional settings and policies
Natural causes (flood, earthquakes, landslides)	Poor technology
Uncontrolled fires	Lack of commitments
Continuous mono-cropping	Inadequate awareness and lack of appropriate information

Climate Context and Impacts on Land Degradation and Biodiversity

The water-related challenges facing communities in the Wami-Ruvu Basin are being exacerbated by climate change – particularly relating to shifting rainfall patterns. Historically, the basin has experienced a bi-modal rainfall distribution, with two rainfall seasons: the short rain season (*Vuli*) which runs from September to November, and the long rain season (*Masika*) which runs from March until May. However, local farmers have noted shifts in these seasons, with the short rain season having gone almost entirely, and the long rain season shifting later, starting towards the end of April, early May. As a result, farmers feel the rainfall is no longer reliable, with patchy and shifting seasonality impacting traditional agricultural practices. These anecdotal accounts from communities engaged on the ground are supported by observational data, with the WRB experiencing a decrease in average annual rainfall between 1981 and 2016 and an increase in extreme events - including increasing flood risk during the condensed wet season and intensifying drought conditions during the prolonged dry season. The intensity of droughts and resulting water stress is exacerbated by increases in temperature, which are associated with increased evapotranspiration and demand. Moreover, some previously perennial rivers have also become seasonal, while some wetlands have dried up.

Shifting rainfall patterns are having a considerable impact on the agroecological landscape – both through water stress and flood risk. Water stress during prolonged dry periods and intensifying droughts not only reduce agricultural productivity – driving agricultural expansion and maladaptive practices, along with the consequential degradation – but also pose a significant challenge for wildlife and pastoralist communities. As noted above, transient pastoral communities have traditionally relied on natural pans as a key source of water for their livestock, moving across the country following the rains, water and grasses. However, as these natural pans dry up, pastoral communities are shifting away from traditional transient routes, instead targeting rivers as an alternative water source. This is creating considerable conflict between transient and sedentary communities, as livestock – particularly cattle – not only damage crop fields as they pass through, but also

degrade riverbanks and reduce water quality. This conflict is exacerbated by inadequate land use planning, with limited recognition of the needs of pastoral communities and limited water resources available in those areas designated as rangeland[1]. As the impacts of drought continue to intensify and rangelands continue to degrade and shrink, these conflicts between livestock keepers, crop farmers and other resource users are expected to increase in the future.

On the opposite end of the spectrum of climate extremes, flood damage from intense rainfall events causes extensive damage to crops as well as the loss of livestock during the rain seasons. Given that flood risk in the WRB is highest near to the riverbanks, there is also somewhat of a link between flood risk and drought (Figure 5). Specifically, as drought and water stress intensifies, farmers are more inclined to move closer to the riverbanks where water is more readily available, increasing exposure to fluvial flooding as well as driving riparian degradation and riverbank erosion.

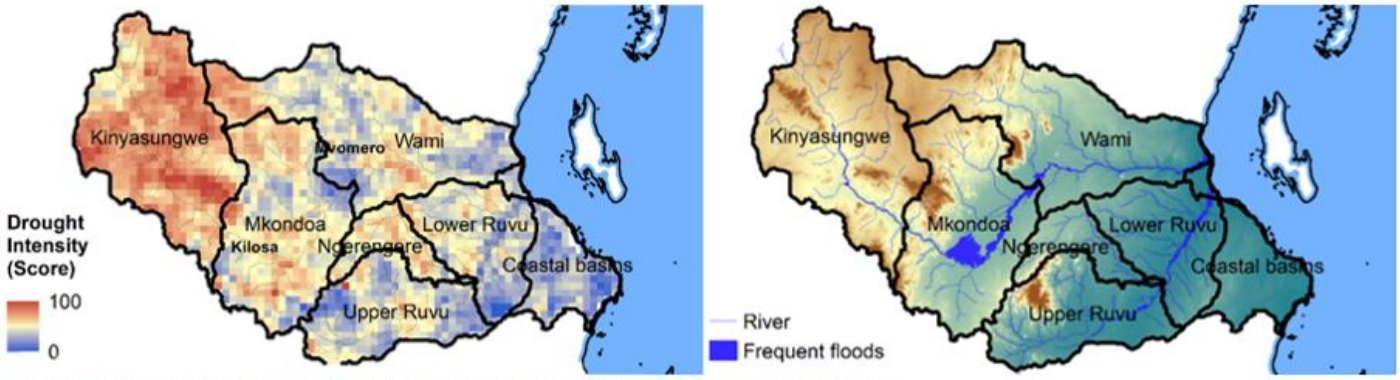

Figure 5. Drought intensity (left) and flood coverage (right) in the Wami-Ruvu Basin.

While climate change impacts (Figure 6) on water resources are largely cross-cutting, among the most vulnerable are the rural, agro pastoral communities that rely on climate-sensitive natural resources for their livelihoods. The sensitivity of these communities in Tanzania is driven by the high reliance on, smallholder rainfed agriculture. Within the Wami-Ruvu basin, rural communities relying on vulnerable crop and livestock agriculture account for the majority of the population outside of the urban hotspot in the coastal sub-basin.

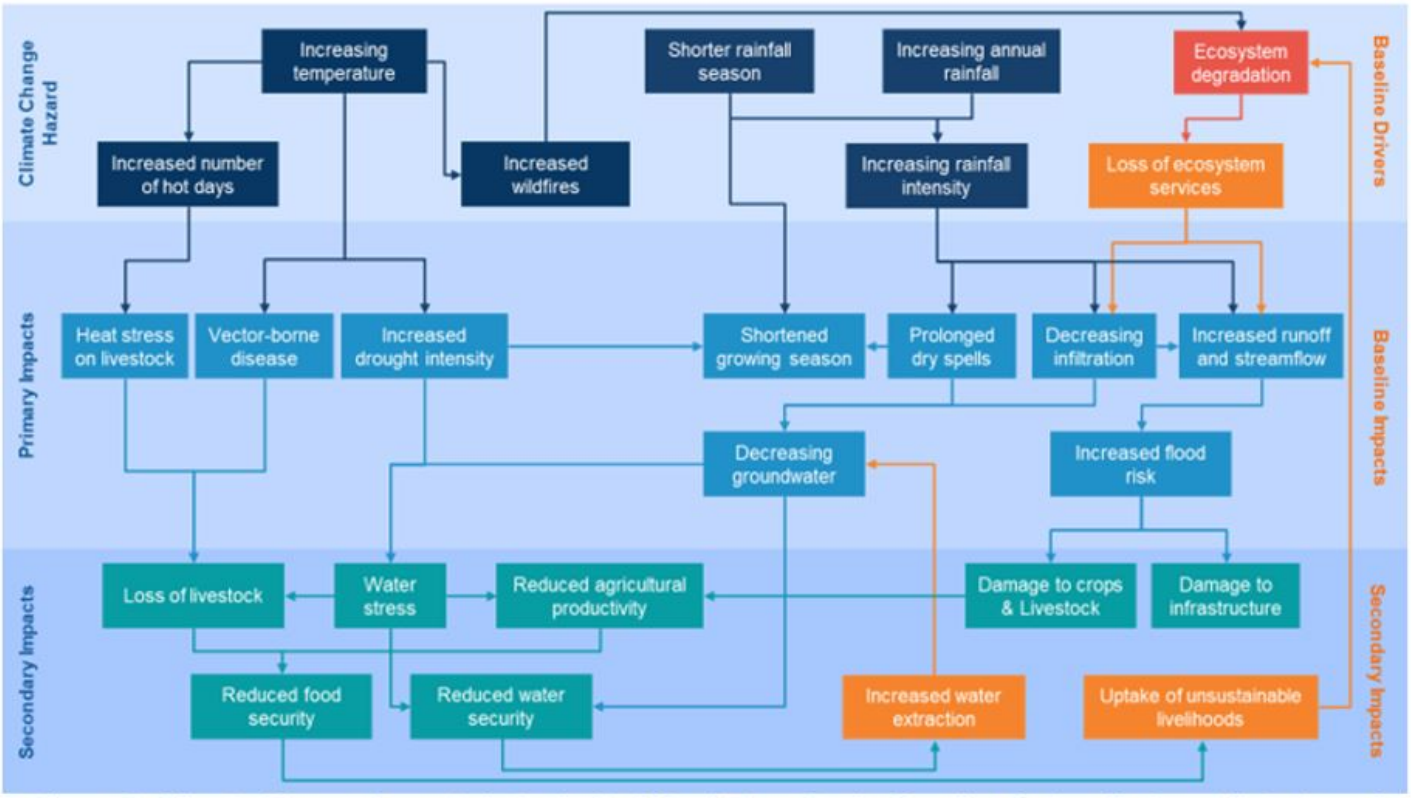

Figure 6. Climate Change Impact chains in the Wami-Ruvu Basin. Baseline factors that contribute to and exacerbate climate change impacts are depicted in orange.

Future Narratives

Building on the drivers and root causes of biodiversity loss and land degradation identified above, several potential future narratives have been identified that have been considered in the project design. These drivers will be further explored during the PPG phase through appropriate analytical works and baseline studies for future monitoring and assessments. These narratives are built around four drivers that could influence the effectiveness of the project for achieving the intended global environmental benefits. The first driver is potential climate futures. As noted above, several climate impact chains have been identified, with variation in their impact dependent on trajectory of global emissions scenarios. In particular, different scenarios will affect the amount of increase in annual rainfall, as well as runoff and discharge rates, which will affect erosion rates and risk from disaster.

The second driver relates to population scenarios, specifically linked to the balance between population growth, and rates of rural-urban migration. One potential future scenario is an increase in population through natural population growth (currently at 3% pa), which will increase socio-economic activity and put additional pressure on natural resources. Moreover, as the available land remains constant, increasing populations will drive further slash and burn agriculture, as well as increasing activity within restricted buffer zones along key waterways. The pressure from these factors will result in further degradation, while creating considerable challenges for conserving remaining biodiversity. A second scenario is a decreasing rural population due to rural-urban migration, with the percentage of people living in urban areas as a proportion of the total population growing at ~7% per decade[2].This could result in an aging rural workforce as the youth migrate out of rural areas, which would affect effectiveness of labor-intensive agriculture or restoration initiatives (including availability of labor for maintenance of interventions). On the positive side, decreasing rural population may reduce pressure on natural resources and aid in conservation efforts.

The third driver is the changing behavior of pastoral communities. Closely linked to the previous two points, climate pressures and competition for limited productive land can result in shifts in transhumance behaviors, including changing traditional nomadic routes or increasing the uptake of more sedentary lifestyles. Potential scenarios include an increase in nomadic pastoralists in the WRM due to domestic migration from other climate-stressed areas of the country, or increased conflict for land as pastoralists remain in productive areas longer. The increased pressure from livestock may impact restoration efforts in grasslands and around water bodies, while conflicts over land-use rights may impact the long-term ownership of interventions by local communities.

The final driver of future narratives is the potential scenarios that will exist in terms of reducing activity within river buffer zones. Government policies have established a buffer zone around rivers in which productive activities are restricted, creating the enabling environment needed to reduce land degradation in riparian areas. However, as many communities already engage in productive activities in these areas, the direction of the project will be influenced by the outcome of ongoing efforts to encourage people to move outside of these buffer zones. While the project does not intend to relocate communities, the interventions in this zone will need to account for scenarios where there is still some activities within these zones.

Barriers

While the need to address land degradation and the impact it has on water resources and biodiversity is well recognized in Tanzania and the WRB in particular – evident by the development of an integrated water resource management plan for the basin – several barriers currently restrict the effective implementation of climate-responsive water resource management. These barriers are summarised below.

Barrier 1: Limited cross-sectoral coordination and conflicting mandates for biodiversity, land and water resource management.

Water resources are a cross-cutting issue, impacting all sectors of the economy. These impacts relate not just to water users, but to all actions within a watershed that impact biodiversity and the ecosystem services that regulate the hydrological cycle. As such, the management of water resources needs to account for and coordinate between the multiple stakeholders involved. This challenge extends to the geographic spread of watersheds, which extend beyond local administrative boundaries, as well as across various

protected areas and other management systems. However, in Tanzania, and specifically within the Wami Ruvu Basin (WRB), there exists a significant challenge in managing natural resources in a cohesive and integrated manner. This challenge stems from limited cross-sectoral coordination and conflicting mandates among the various sectors responsible for biodiversity, land, natural resources, agriculture, livestock, energy and mineral resources, and water resource management. This barrier hinders the effective implementation of climate-responsive water resource management strategies and practices. For instance, the Ministry of Water (MoW) is responsible for water resources, while the Ministry of Natural Resources and Tourism oversees forests and wildlife conservation, and the Ministry of Agriculture and Irrigation focuses on expansion in irrigated agriculture and the Ministry of Lands is continually developing land and development of land use plans that may not necessarily align with MoW water source conservation planning.

The Ministry of Water (MoW), in collaboration with other line ministries, has formulated an Integrated Water Resources Management and Development (IWRMD) Plan for the basin. Nonetheless, the primary obstacle has been the adherence of other sectoral ministries to this plan, compounded by overlapping institutional mandates and conflicting approaches to sectoral development. For example, the closely related sectors of crop agriculture and livestock fall under two separate ministries, with the

management of land under a third, the natural resources they rely on under a fourth, and water resources and irrigation under a fifth. The varied mandates across these ministries overlap in terms of the management of water resources, perpetuating the conflict and poor land use planning that is evident in the rural areas across the WRB. Achieving effective land and biodiversity conservation necessitates the alignment of annual plans of other sectoral ministries with the jointly developed IWRMD plans. Notably, the plans of these line ministries primarily focus on political boundaries, often overlooking biophysical boundaries essential for basin-wide planning. Effective implementation of basin conservation plans for instance, necessitates the support of Ministries responsible for land use planning, agriculture and forestry.

Barrier 2: Limited institutional capacity to implement IWRM and mainstreaming biodiversity.

The execution of Integrated Water Resources Management (IWRM) adheres to basin plans crafted collaboratively across sectors, necessitating the involvement of stakeholders at decision-making levels on one hand and community levels on the other end, each playing distinct roles in plan implementation including mainstreaming biodiversity through the specific activities identified in the CCP. The current institutional framework for water resources management in WRB was established to facilitate harmonious integration and participation of all stakeholders, advocating polycentric governance. This includes consideration of the five levels of water management identified in the Tanzania National Water Policy (2002), namely the national, basin, district, catchment/sub-catchment, and water user association (WUA) levels.

The major obstacle stems from the limited technical capacity of community associations tasked with ensuring community involvement and ownership of the plans,

coupled with the absence of an oversight authority capable of holding other line ministries accountable and supervising the collaborative implementation of joint plans across various sector ministries. Appropriate enabling environment is needed for the latter challenge. Currently, the MoW, and likewise the basin authorities, do not have the capacity to ensure accountability of other ministries adherence to the joint basin conservation plans, etc. Moreover, the basin forums, intended to unite stakeholders, have yet to achieve their intended impact, with minimal stakeholder representation and limited development and implementation of coordinated interventions. The broad spectrum of stakeholders involved in basin forum discussions fails to sufficiently attract the engagement of private sector entities and business owners, leading to insufficient representation from these groups in joint management of resources.

The WRB, has established conservation and management plans aimed at tackling various challenges, including water pollution, habitat degradation, over-abstraction, and land degradation within the basin, but these plans fail to identify measures to improve the management effectiveness of areas of high conservation importance, especially the KBAs and PAs, as well as issues related to landscape connectivity. Additionally, the successful implementation of these plans hinges on the availability of a substantial number of skilled personnel and financial resources, but presently, the Wami-Ruvu Basin Water Board (WRBWB) comprises only 10

members representing local governments, catchment committees, WUAs, and various sectors with limited technical to no capacities for land management and biodiversity conservation. This composition is insufficient given the magnitude and scope of interventions required to address ongoing land degradation, biodiversity loss, and the depletion of freshwater resources, especially amid rising water demand. Women are also underrepresented in forest management activities, along with limited emphasis on the linkages between forestry and gender. Furthermore, community associations face limitations in accessing financial resources to support adoption of SLM practices.

Barrier 3: Inadequate knowledge and awareness of effective climate-responsive, sustainable land management and biodiversity conservation actions.

In addition to the constraints of limited institutional capacity (Barrier 2), the implementation of IWRM in Tanzania is further constrained by a lack or limited knowledge and awareness among farmers, pastoralists, communities, and extension officers of appropriate climate-responsive, sustainable land management and biodiversity conservation actions. This includes limited understanding of the relative abundance and threats to biodiversity across the different landscapes, and the available climate-smart technologies or options to adapt agricultural practices, as well as limited awareness of the need to, and benefit of, adopting such measures. This lack of awareness constrains the uptake of such practices, with farmers hesitant to shift away from traditional practices – despite recognizing that traditional practices are no longer as productive. This challenge is compounded by complexities with land tenure, particularly for women who experience insecure land rights, disincentivizing investment in actions that promote land productivity in the long term. While some communities have received support from past projects to enhance their knowledge, the reach of such programmes has been limited and gaps remain to be filled[1]. Moreover, while the roles of ecosystem services in water management is well recognized in the IWRMP, as well as the closely associated Catchment Conservation Plans, the two plans do not explicitly explain the linkages between biodiversity and ecosystem service provision, and therefore the specific importance of conserving biodiversity within ecosystems to maintain full ecosystem functioning.

Barrier 4: Limited stakeholder engagement for and community ownership of sustainable land management and biodiversity conservation initiatives.

Previous initiatives in the WRB have identified low stakeholders' engagement or poor participation of the directly impacted communities in developing the actions as a key barrier to the uptake, ownership, and sustainability of land management *and biodiversity conservation* interventions. This is compounded by a general lack of awareness among stakeholders on IWRM, biodiversity conservation and climate change (See Barrier 3) which contributes to the hesitancy of communities to take ownership of the interventions, particularly after the direct project support period is over. Moreover, most of the designed interventions are on a top-down basis without sufficient input or involvement from the local communities which results in a lack of ownership. This is attributed by limited participation of the community members in the basin multi-stakeholder forums as well as the limited capacity of the existing community engagement frameworks such as the Water User Association.

Barrier 5: Inadequate monitoring, evaluation, and knowledge sharing on IWRM, land degradation, biodiversity, and climate change.

The long-term sustainability and impact of the IWM approach is constrained by inadequate management, monitoring and evaluation systems of IWM implementation. Specifically, interventions are not adequately monitored to assess their effectiveness and impact, or to identify lessons that could be used to support the scaling and replication of best practices. This is further exacerbated by a lack of access for planners and decision makers within the WRBWB and related institutions to a centralized data repository system. Consequently, experts were obliged to collect widely distributed information from LGAs and other stakeholders when developing new initiatives. The continuation of this situation may result in losing historical data, which will become increasingly important in the future.

Many of these barriers are underpinned by financial constraints which prevent the Government of Tanzania from engaging in adequate barrier removal strategies. Support is therefore needed to overcome these barriers and enable effective implementation of IWM and sustainable use actions to benefit vulnerable communities in the Wami-Ruvu Basin.

[1] Additional engagements will be required during the next phase of project development to better assess the extent of knowledge and awareness among rural communities and to identify specific actions to enhance both.

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[1] Areas with more water resources tend to be more arable and therefore prioritized for crop agriculture, with livestock generally concentrated in semi-arid areas.

[2] World Bank 2024

[3] Additional engagements will be required during the next phase of project development to better assess the extent of knowledge and awareness among rural communities and to identify specific actions to enhance both.

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[1] IWRMDP Implementation Strategy and Action Plan 2020.

[2] Correlating with the high rates of urbanisation, the percentage of people employed in agriculture has steadily decreased over the last 25 years.

[3] National Climate Change Resilience Strategy

[4] FAO Aquastat

[5] Fienstein et. al, "Gender Inequality in the Division of Household Labour in Tanzania," *African Sociological Review,* Vol. 14, No. 2, 2010.

[6] Water Resources Division – WRB Fact Sheet 2020

[7] National Biodiversity Strategy and Action Plan (NBSAP) 2015-2020

[8] National Biodiversity Strategy and Action Plan (NBSAP) 2015-2020

[9] IUCN 2010. Ruvu Basin – A Situation Analysis.

[10] in the Morogoro Municipality, Morogoro Rural and Mvomero Districts

[11] TFSA 2020. Management Plan For Uluguru Nature Forest Reserve

[12] USAID 2008. A Profile of the Wami River Sub-Basin

[13] Gwegime, J., Mwangoka, M., Mulungu, E., Perkin A. and K. Nowak (2013). The biodiversity and forest

condition of Ruvu South Forest Reserve. TFCG Technical Paper 37. DSM, Tz. 1-72 pp.

[14] USAID 2008. A Profile of the Wami River Sub-Basin

[15] National Biodiversity Strategy and Action Plan (NBSAP) 2015-2020

[16] Tanzania National Environmental Masterplan

[17] **Although estimates of deforestation in Tanzania vary considerably depending on the methodology and granularity of the data used, ranging from 23,860—469,000 ha/yr, the national LDN Working Group agreed that the assessments conducted by the RCMRD were most accurate for Tanzania given their use of local sampling.**

[18] **Land Degradation Neutrality (LDN) Target Setting Programme Report (2018)**

[19] **Land Degradation Neutrality (LDN) Target Setting Programme Report (2018).**

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

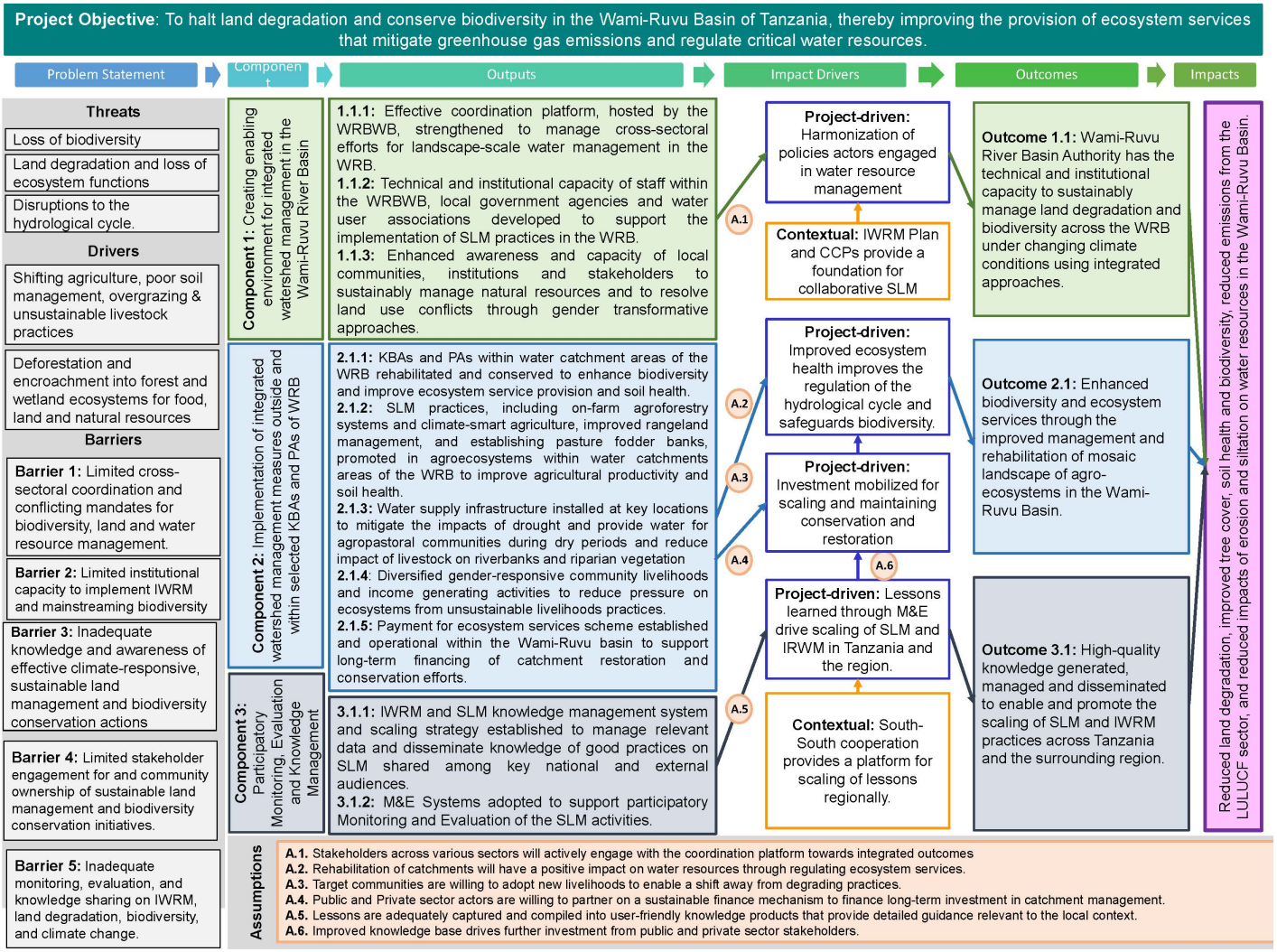
Theory of Change

Proposed Approach

The proposed approach to address the drivers of land degradation and restore ecosystems in the WRB is to empower rural communities to adopt more sustainable livelihood practices in critical catchment areas. Given the key linkages between water, biodiversity and land degradation, stakeholders identified the Integrated Water Resource Management and Development Plan (IWRMDP)[20][1] and associated Catchment Conservation Plan (CCP) of the Wami-Ruvu Basin as key entry points for the proposed project – providing a platform for a system-based approach to land and water resource management. Therefore, the project will be underpinned by strengthening the technical and institutional capacity of the Wami-Ruvu River Basin Authority, with a particular focus on sustainable land management (SLM) and biodiversity conservation as critical components of integrated water resource management (IWRM) across the basin. Building on the foundation of these established frameworks by strengthening capacity for implementation will optimize the efficiency of the proposed project, thereby maximising the global biodiversity and land degradation benefits in the targeted area.

The resulting IWRM approach will be supported by on-the-ground actions to improve access to water resources, both through improved water supply infrastructure for agropastoral communities and through improving ecosystem health and the provision of regulating ecosystem services in critical catchment areas. Key to this approach will be enhancing the long-term sustainability and scalability of such measures through the establishment of innovative financial mechanisms that mobilise investment in the conservation and restoration of critical water source areas. Finally, the project is built on a firm foundation of knowledge and learning, including improving monitoring and understanding of streamflow and groundwater recharge, and building awareness of the importance of riparian zones along stream and river channels. Throughout the approach, it is essential that communities are closely engaged to co-develop the interventions, ensuring full community ownership of the SLM practices well beyond the project period.

Under the proposed approach, barriers to the Preferred Solution will be addressed through Components 1 and 3, which together with the stakeholder-centered approach to project design and implementation will create an enabling environment for landscape-scale interventions to halt land degradation, conserve biodiversity and reduce GHG emissions. This enabling environment will create the foundation for Component 2 to address the drivers and root causes of land degradation and biodiversity loss through on-the-ground investments. The combination of the barrier removal strategies under Components 1 and 3, with the on-the-ground investment to address root causes in Component 2, will create considerable environmental benefits that are considered sustainable and scalable in the Tanzania context.



Project Components

Component 1: Creating enabling environment for integrated watershed management in the Wami-Ruvu River Basin.

Outcome 1.1: Wami-Ruvu River Basin Authority has the technical and institutional capacity to sustainably manage land degradation and biodiversity across the WRB under changing climate conditions using integrated approaches.

Activities under Outcome one will focus on building the capacity of local institutions, including the WRBWB, local government authorities and water user associations to implement the national and local level IWRM plans. This will focus on directly addressing Barriers 1 and 2 listed above, creating effective coordination systems, as well as enabling active engagement on the ground to implement IWRM activities at scale. A central consideration of this Outcome is mainstreaming biodiversity into the implementation of land and water resource management in the WRB. The IWRMP currently recognizes the importance of biodiversity, particularly in the need for adopting a multidisciplinary approach that focuses on the inter-sectoral relationships between human activities, biodiversity and water resources. It is also recognized within the plan that water is critical for maintaining biodiversity in the basin, highlighting the intrinsic circular links between the two.

The WRBWB will be a central stakeholder for this outcome, with close support from the Ministry of Water and the national water board. The Vice President's Office (VPO) will also play a key role in coordinating between different sectors and line ministries.

Output 1.1.1: Effective coordination platform, hosted by the WRBWB, strengthened to manage cross-sectoral efforts for landscape-scale watershed management in the WRB.

The coordination platform will build on the existing Basin Multi-stakeholder Forum, which brings together public, private and civil society groups to discuss issues of IWRM at the landscape level in the WRB. The forum will target institutions mandated for land management, land use planning, and biodiversity management, as well as other relevant stakeholders. This will include representation from women's groups and marginalized communities that together play a critical role in use and management of land and water resources. In particular, the project will seek to improve dialogue within the forum, with the aim of getting decision-makers to use the IWRM plan as a platform for sectoral planning. This will include establishing feedback mechanisms within the forum to guide sectoral decision-making processes, as well as creating space for direct engagement with high-level decision makers. Particular focus will be placed on creating sustainability within the forum to shift away from reliance on individual projects, outlining clear roles and responsibilities for key stakeholders (including identifying entry points for bringing private sector on board), as well as linking with the Tanzania Water Investment Programme (TanWIP) to help mobilize resources for ongoing investment in SLM and the operation of coordinating the platform. Finally, subforums will be established to target specific bottle-necks that arise in the water management process.

Output 1.1.2: Technical and institutional capacity of staff within the WRBWB, local government agencies and water user associations developed to support the implementation of sustainable land management practices in the WRB.

In addition to strengthening coordination among stakeholders engaged in land and water resource management, the project will build the technical capacity of institutions at the national, district and community levels to support the implementation of SLM as a critical component of the IWRM plan developed for WRB. In line with the coordination efforts described above, the capacity development will specifically target enabling better harmonization of policies and plans across various sectors, including strengthening alignment of the IWRM plan, the WRB Catchment Conservation Plan (CCP) and the TanWIP, along with various sector specific plans and policies - with particular focus on gender-transformative approaches that address gendered barriers to adaptation. Moreover, the project will target strengthening the representation and consideration of biodiversity in the implementation of the IWRMP and CCP. While both of these documents recognize the importance of biodiversity, the language in the documents focuses on addressing the drivers of land degradation – a key aspect of biodiversity conservation – but with limited discussion or direction on how to

actively promote biodiversity in the process. During the next phase of project development, specific actions for mainstreaming biodiversity conservation into water management plans including exploring, mapping, establishing and managing potential corridors linking critical landscapes which are missing in the current plans, will be considered through consultation and engagement with relevant parties. In particular, the project will target entities responsible for the management of protected areas and KBAs to ensure that the management of these areas strongly reflects the interface between biodiversity, IWRMP and CCPs.

The capacity development will include strengthening engagement between stakeholders at all levels of water management, particularly between water user associations (WUAs) and local authorities (including the WRBWB), as well as between local authorities and national agencies. WUAs will be provided necessary support to establish a strong footprint within their communities, including the provision of multipurpose meeting spaces that will facilitate engagement with communities and catchment water offices[1]. At the community level, capacity development of WUAs will be gender-responsive, ensuring full and active participation of women as key stakeholders in water collection, use and management. Opportunities for using a training-of-trainers approach to underpin capacity development will be further explored at the next stage of project development. Moreover, any training under the project will be institutionalized, enhancing opportunities for upscaling of project approaches beyond the core implementation.

Output 1.1.3: Enhanced awareness and capacity of local communities, institutions, and stakeholders to sustainably manage natural resources and resolve land use conflicts through gender transformative approaches.

The project will engage in direct awareness raising campaigns within the target communities, working with local authorities, WUAs, communities, the private sector and other relevant stakeholders to highlight the importance of catchments and riparian zones for managing hydrological cycles and promoting the buffer zones along stream and river channels, as well as providing information on how to sustainably manage natural resources and to resolve land use conflicts. This will include awareness of the role of biodiversity within an ecosystem to maximise and sustain ecosystem functions and services. To this end, the multipurpose spaces provided to strengthen WUAs will be used as meeting points for engagements, as well as displaying information boards with the latest guidance and advisories for SLM in the catchment. During the next phase of development, engagements will also be held with women's groups to identify suitable entry points for raising awareness among women given inherent challenges accessing awareness events stemming from traditional household roles and responsibilities, particularly within rural communities. As with Output 1.1.2, the project will explore opportunities for using a training-of-trainers approach to underpin the capacity development, as well as institutionalizing awareness campaigns to enhancing opportunities for upscaling of project approaches beyond the core implementation.

Component 2: Implementation of integrated watershed management measures outside and within selected KBAs and PAs of WRB.

Outcome 2.1: Enhanced biodiversity and ecosystem services through the improved management and rehabilitation of mosaic landscape of agroecosystems in the Wami-Ruvu Basin.

As noted above, effective catchment management is essential for maintaining the hydrological cycle and ensuring long-term provision of clean water across the mosaic agro-ecological landscape[2] and urban areas of Tanzania. Specifically, the uptake of ecosystem-based approaches to sustainable land management across the WRB will improve the health of ecosystems and safeguard the critical regulating services they provide - while simultaneously providing multiple environmental, social and economic co-benefits to communities. This Outcome will use a combination of Land Degradation, Biodiversity, and Climate Change Mitigation funding, with each funding source being targeted specifically towards interventions that align with each focal area's objectives. For example, BD funding will target restoration and conservation efforts that will support the persistence of globally significant biodiversity, coupled with strategies for retaining natural ecosystems within landscape approaches that integrate conservation, restoration and improved use of agricultural lands. CCM funding will be used to include additional restoration interventions with high emission-reduction potential, and LD funding will be used to target areas of high degradation that are important for the management of critical water sources but do not necessarily have high biodiversity or mitigation value.

As noted in the climate context section above, climate change is putting added pressure on the Tanzanian landscape, including exacerbating the drivers of degradation through added pressures placed on vulnerable communities. To account for this, the design of interventions under this Outcome has considered the potential future climate scenarios, ensuring that the interventions themselves are resilient to climate change impacts, alongside building resilience within communities to counteract the vicious cycle of degradation caused by climate change. The IWRM approach that underpins the project design has been adopted in Tanzania partly because of the robustness of the approach to dealing with climate threats. Further consideration will be given in selecting appropriate species for restoration[21][3], as well as considering the impacts of extreme events on implementation. Moreover, livelihood activities that are intended to draw communities away from unsustainable practices will be selected for their resilience alongside other selection criteria. Key threats identified that will be considered include shifts in rainfall seasonality which affects the reliability of rainfall which can impact traditional agricultural practices and productivity. Water stress during prolonged dry periods and intensifying droughts also drive agricultural expansion and maladaptive practices, along with the consequential degradation. Flood damage from intense rainfall events causes extensive damage to crops as well as the loss of livestock during the rain seasons.

Under Outcome 2.1, the proposed project will initiate the uptake of SLM practices across the WRB - reducing the drivers of degradation by empowering communities to partake in SLM practices. Interventions will not only rehabilitate degraded ecosystems and improve biodiversity in key catchment and recharge areas, but will also work with rural communities to reduce pressures from natural resource-based livelihoods, including agriculture, charcoal production, and sand mining. Several key stakeholders have been identified, including sedentary communities that are largely engaged in crop agriculture, as well as nomadic pastoralists. These groups will be further engaged throughout the next phase of project development to identify specific farmers organizations or other civil society groups that can aid in effective management of the proposed interventions. Given the important role played by women in the rural economy, as well as in domestic work within rural households, it is essential that land management interventions actively engage both men and women. To this end, a gender assessment will be conducted during the next phase of project development to identify specific entry points for gender-responsive approaches that not only account for differential roles of women and men in land management, but actively engage women and men in the process.

Output 2.1.1: KBA and PAs within water catchment areas of the WRB rehabilitated and conserved to enhance biodiversity, and improve ecosystem service provision and soil health.

The target sites for restoration efforts will be informed by the Wami Ruvu Basin Catchment Conservation Plan (CCP) which have been approved by the WRBWB as the core conservation plan for the period 2020 to 2035; taking special consideration for areas with high biodiversity value. These plans adopt a holistic landscape planning approach, whereby catchments are considered as landscapes which constitute social-ecological systems influenced by distinct ecological, historical, political, economic and cultural processes and activities - lending the activities identified under the plans well to the IWRM and SLM approaches that are proposed under this project. By aligning the CCP with the IWRM plans, the project will ensure consistency in management of water and land resources across the WRB.

The WRB CCP identifies challenges to conservation in the basin, assessing 27 indicators across each of the seven sub-catchments that collectively compromise the WRB. These indicators are grouped into seven themes, namely: i) environmental conservation and management; ii) water source protection and management; iii) livelihood improvement; iv) institutional strengthening; v) financial sustainability; vi) coordination and institutional linkages; and vii) monitoring and evaluation. The CCP goes further to rank and prioritize individual catchment areas within the basin based on four key criteria: pollution; land cover and land use; sediment; and economic development pressure. From this, Zone I in Kinyasungwe sub-catchment was identified as the highest ranked site, notably for high pollution, deforestation and sediment levels, with agriculture and overgrazing being the primary drivers of degradation. This area has also been identified as a drought hotspot, with significant pressure on water resources now and in the future. Moreover, Kinyasungwe is the source catchment for Dodoma - the national capital which relies heavily on groundwater for its rapidly growing population.

Another key area identified is the Mkondoa catchment, a mountainous catchment with significant degradation in the upper reaches which serve as water towers for the catchment. In particular, the Gairo district in the northern reaches of Mkondoa is undergoing major deforestation, impacting water supply to Kilosa, the district capital for Morogoro. Although Mkondoa only ranks seventh out of eleven on the CCP prioritization matrix, it ranks highest in terms of land use change, representing a model system for mountain catchment rehabilitation. Similarly, Kisarawe district in the Coastal sub-catchment too represents a highly degraded mountainous catchment area that plays an important role in supplying water to Dar es Salaam. The coastal sub-catchment, including Kisarawe district, ranks second on the prioritization matrix, facing pressures not only from agriculture, but also urban expansion and population growth.

In addition to, and where possible in line with the abovementioned conservation priority areas, the project will target key biodiversity areas (KBAs), indicated by the presence of forest reserves and protected areas (Figure 8). These areas include sites with several protected areas, namely (from west to east):

- Chenene Forest Reserve (WDPA ID 301515) – with an area of 29,836ha
- Uluguru National Forest Reserve (WDPA ID 555697520) – with an area of 24,115 ha

- Mamiwa Kisara Forest Reserves in the Ukaguru mountains (WDPA ID 555623849) – with an area of 14,163 ha

- Zaraninge Forest, situated in the Saadani National Park (WDPA ID 303358)– with an area of 20,000 ha

- Ruvu South Forest Reserve (WDPA ID 555623837) – with an area of 30,633ha

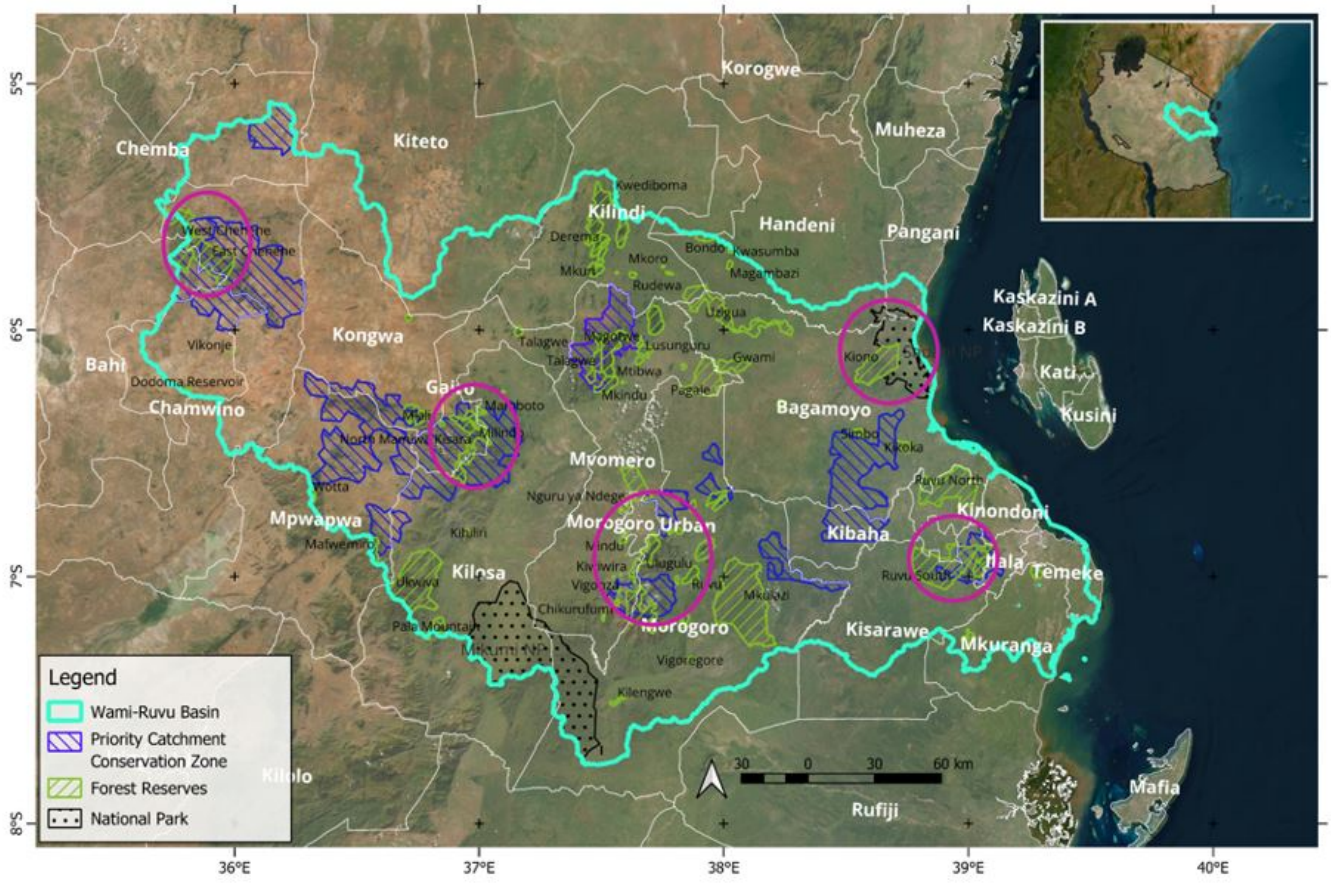


Figure 8. Potential Sites for intervention. Sites will target sites where areas of high biodiversity value (including forest reserves and national parks) overlap with priority areas for catchment conservation. Priority areas of overlap are circled.

Under this Output, the proposed project will contribute towards specific actions identified in the CCPs for each of the key areas listed above - including range of ecosystem-based approaches such as tree planting, and conservation of degraded watersheds and critical water catchment areas. GEF finance will cover the incremental costs of rehabilitating and conserving ecosystems in areas of high biodiversity value as well as key water tower areas within upper catchments - providing global environmental benefits for biodiversity conservation and land degradation neutrality. Tree planting interventions will focus on local species with high biodiversity value, either in terms of increasing tree diversity, or providing habitats to diverse fauna. Conservation efforts will focus on Key Biodiversity Areas and other sites with high biodiversity value, and will support specific conservation activities such as ascertaining the relative abundance and threats to key biodiversity across the landscapes, establishing landscape/habitat connectivity, monitoring and assessment of species of global conservation significance outside and within KBAs and PAs, capacity building of management authorities and local communities in biodiversity conservation leading to improved management effectiveness as measured by METT, and possibly informing the exploration of long-term financing mechanisms of these critically important areas for biodiversity. Other conservation efforts will include Participatory Forest Management programmes both with national and local authorities for Joint Forest Management (JFM) and Community Based Forest Management (CBFM), respectively - as per the Forest Act of 2002. Further engagements will be held at the next stage of project to identify additional entry points for strengthening the management of conservation efforts within protected areas[1]. The key

stakeholders for these systems are the rural communities who rely on forest resources for their livelihoods; either directly through the use of forest resources, or indirectly through the regulating services that forests provide. To this end, the project will closely engage with local community groups, ensuring active participation of women in the CBFM process.

In areas of high degradation and erosion, green interventions will be complemented by hybrid infrastructure for improved erosion control, including sediment traps, check dams, vegetated contour bunds and gabions. The specific location and extent of interventions for each target site will be determined based on village land-use plans that have been developed for some communities across the basin. Where such plans have yet to be developed, the project will support local authorities and the WRBWB to develop village land use plans in line with the IWRMP and CCP[22][2].

Output 2.1.2: SLM practices, including on-farm agroforestry systems and climate-smart agriculture, improved rangeland management, and establishing pasture fodder banks, promoted in agroecosystems within water catchments areas of the WRB to improve agricultural productivity and soil health.

Under this Output, the proposed project will contribute towards actions identified in the CCPs that focus on agricultural land use, including the establishment of on-farm agroforestry systems and climate-smart agriculture, improved rangeland management, and establishing pasture fodder banks. These actions will target agricultural zones within the mosaic agroecosystem surrounding the restoration sites identified under Output 2.1.1.

Output 2.1.3: Water supply infrastructure installed at key locations to mitigate the impacts of drought and provide water for agropastoral communities during dry periods and reduce impact of livestock on riverbanks and riparian vegetation.

In addition to the rehabilitation and catchment conservation interventions described above, the proposed project will work with local communities to address the anthropogenic drivers of ecosystem degradation - particularly those related to agriculture, livestock, charcoal production and sand mining. Removing the drivers of degradation is critical to ensure long-term sustainability of the ecosystem-based approaches to catchment management, including measures taken before, during and after drought spells to reduce water shortage. To this end, the project will support rural communities through two primary pathways. First, water supply infrastructure will be installed at key locations to provide water for agropastoral communities during dry periods and appropriate water conservation measures identified and implemented including supply and demand management, education, and awareness creation. This will include the installation of water troughs with solar pumps, especially in drier areas, to draw livestock away from sensitive riparian zones where substantial degradation is occurring. By providing accessible water points away from these sensitive locations, the GEF support will reduce the impact of livestock on riverbanks and riparian vegetation, safeguarding sensitive ecosystems and their service provision. The establishment of these communal livestock watering points will be accompanied by appropriate governance systems, including outlining the necessary by-laws and guidelines for managing the watering points as well as general management of water resources. Trials of such interventions in the WRB have demonstrated their ability to yield behavioral change among communities. For example, WRBWB has established at least five livestock watering points in the basin, which have demonstrated the suitability of such infrastructure to control livestock from directly accessing crucial water sources. In the Ruvu Darajani village – where the GCCA+ project was implemented – by-laws and guidelines were established to manage the system - including banning herders from allowing livestock to drink directly from the

Ruvu river. Contraventions of this result in the owner of the livestock having to pay a fine per livestock that drinks directly from the river. Communities have positively embraced the new governance structures for sustainability of ecosystem services. The benefits of these measures have been documented in the annual monitoring and evaluation reports of the WRBWB.

During the next phase of project development, additional options such as solar-powered pumps, small dams and micro-irrigation will be explored to improve water supply to smallholder farmers to reduce the need to farm close to riverbanks, enabling better enforcement of officially mandated buffer zones. Based on previous experiences through the GCCA+ initiative, several key stakeholders should be closely engaged in the development of water infrastructure, particularly the pastoralist communities whose cattle would use the infrastructure in a more transient manner and the sedentary crop farmers, who often claim tenor of the land and whose crops may be impacted by the movement of livestock through an area.

Output 2.1.4: Diversified gender-responsive community livelihoods and alternative income generating activities to reduce pressure on ecosystems from unsustainable livelihood practices.

Next, the project will work with local communities to develop alternative gender-responsive livelihoods that enable people to shift away from practices such as sand mining and charcoal production that cause extensive degradation of natural ecosystems. Several sustainable livelihood options have already been identified and piloted across the WRB, including hydroponics, fish farming, bee keeping, spice farming, and poultry farming. Special consideration will be given to creating livelihoods for women and youth, promoting gender-responsive development and reducing existing gender imbalance within the WRB. Another key livelihood intervention will be the promotion of briquette production, using agricultural byproducts as an alternative to charcoal production. A market study will be conducted to identify entry points for livelihood development, including developing necessary value chains and market links. By investing in livelihoods, the project will provide global environmental benefits for biodiversity by promoting more sustainable use of natural resources in high biodiversity areas, while reduced pressure will have land degradation benefits resulting from improved forest ecosystem goods and services and avoided greenhouse gas emissions and increased carbon sequestration in production landscapes. The effectiveness of livelihood development in addressing land degradation and biodiversity loss in the WRB was demonstrated by the Sustainable Land Management (SLM) project (2016 - 2020), which was implemented in the Ruvu river where various alternative livelihoods were introduced in the communities. These include fish farming, bee keeping, spice processing, alternative cooking energy among others. The introduction of sustainable livelihoods was considered a key contributor to reducing land degradation in basin, enabling considerable net benefits from the project[3].

- 32,072 hectares of forest out of 100,000 hectares were restored.
- Decrease of sediment at Ruvu river by 20% (from 50 tonnes/Km2/year to 40.2 tonnes/km2/year)
- 20% increase in mean annual river flow in Ruvu river

Output 2.1.5: Payment for ecosystem services scheme established and operational within the Wami-Ravu basin to support long-term financing of catchment restoration and conservation efforts.

Finally, the implementation of these interventions will be supported by the development of a sustainable finance facility, drawing on water users to support restoration/conservation efforts through a payment for ecosystem services scheme. The facility will operate through the WRBWB, directing income from private sector water

users towards ongoing efforts under the CCPs.[23][4] Further engagement with the private sector is planned for during the PPG phase to assess options and entry points for such a facility. Private sector actors will also be sensitized to the needs for and merits of such a programme through Output 1.1.3 of the proposed project. Moreover, the development of the facility will account for the actions identified under the soon to be launched Tanzania Water Investment Programme - the national component under the Continental Africa Water Investment Programme. Development of the PES scheme will include policy briefs to integrate the lessons learned compiled by the project into national-level policies/strategies for catchment management, including a national PES framework to create an enabling environment for scaling PES in Tanzania.

Across all on-the-ground interventions, the project will draw on pilot initiatives to identify best practices and draw lessons for successful implementation. Several pilot initiates have been identified covering the full range of proposed interventions. This includes the Equitable Payments for Watershed Services (EPWS) programme piloted by CARE and WWF between 2008 and 2012 in the Morogoro region, and in the neighboring countries. An analysis of the EPWS programme found that while incentives resulted in direct benefits, indirect benefits such as increased crop yields, higher land values, new employment opportunities, more knowledgeable farmers, improved leadership skills as well as increased trust, expanded internal and external networks and strengthened institutions were more important, as well as highlighting the need to pay attention to equity in the design of PES programs implemented on agro-ecosystems.[24][5] Moreover, studies have found several socioeconomic characteristics increase the uptake of interventions under a PES scheme, including households headed by younger heads with clear land ownership, households which received PES incentives and lived for a long time in the same area and those with more labour force and access to extension services.[25][6]

Studies of other PES schemes in Tanzania and surrounding countries (which included EPWS) have found increased success rates (up to 75%) when ecosystem services were bundled and contributed to livelihood improvement, and when the schemes targeted mid-term and long-term funding. The presence of private buyers was also found to be very relevant to PES success[26][7].

Component 3: Participatory Monitoring, Evaluation and Knowledge Management.

Outcome 3.1: High-quality knowledge generated, managed and disseminated to enable and promote the scaling of SLM and IWRM practices across Tanzania and the surrounding region.

The final component will build the critical knowledge management and learning systems needed to enable long-term and sustainable implementation of IWRM. Collectively with Output 1.3, this approach will work to remove Barriers 3, 4 and 5, building awareness among critical stakeholders, supported by robust data management.

Output 3.1.1: IWRM and SLM knowledge management system and scaling strategy established to manage relevant data and disseminate knowledge of good practices on SLR shared among key national and external audiences.

The project will develop a national upscaling strategy to promote the replication of sustainable practices across all river basins of Tanzania. The strategy will be underpinned by a robust knowledge management system, comprised of an IWRM and SLM database that will collate and disseminate best practices and lessons learned from the project. During the next phase of project development, the project will identify potential institutions to host and manage a knowledge database, building on existing systems wherever possible. The processing of information will be tailored to the specific needs of different groups, ensuring that knowledge is packaged disseminated in a gender-sensitive and responsive manner. Furthermore, social and gender assessments will identify any specific barriers or needs among women and other vulnerable or marginalized groups to guide the knowledge processing and dissemination activities. The upscaling strategy will include an inter-basin knowledge exchange programme targeting basin management staff and WUAs in other basins, as well as local authorities and WUAs within the WRB to actively promote the dissemination of information both within sub-catchments of the WRB and across other basins. This knowledge exchange will be further promoted through existing multi-stakeholder national basin forums.

Output 3.1.2: M&E Systems adopted to support participatory Monitoring and Evaluation of the SLM activities.

The effectiveness of the platform will be underpinned by a robust monitoring and evaluation system, developing tools that allow for continued learning from project interventions, including monitoring of the performance of activities against the gender action plan. This will include community-based, participatory monitoring systems, ensuring that the experiences of communities with the proposed interventions are considered alongside other data driven monitoring systems. This will help promote community ownership and provide valuable lessons for continued co-development of future investments. The lessons learned and best practices identified through project interventions under Components 1 and 2 will be shared not only between river basins within Tanzania, but also regionally.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

No

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

No. Given the underlying theme of water resources cutting across all aspects of the proposed project, national implementation will be led by the Ministry of Water, which will be responsible for project management and reporting. The MoW will be supported by various sectoral agencies and organization that will service as responsible parties for specific interventions. This includes Global Water Partnership Tanzania; Wami-Ruvu Basin Water Board and Vice Presidents Office (VPO), as well as sectoral ministries responsible for natural resources and tourism, forestry services, agriculture, livestock, among others. To account for the wide intersectoral nature of the project, the VPO will provide close coordination support to MoW throughout implementation.

Coordination efforts with other initiatives at the national and basin levels will be led by the Ministry of Water, with support from the Wami Ruvu Basin Water Board. The following GEF- financed projects have been identifying as most relevant and aligning with the proposed activities:

At the national level, Tanzania has several projects that the project can build and learn from. These include the GEF 6 project with UNEP (GEF ID: 9524, 2018-2023) which aims to strengthen integrated natural resource management and restoration of degraded landscapes for resilient socio-ecological systems in Tanzania. Lessons will be drawn from the work done in the Greater Ruaha and Lake Rukwa Basins to implement sustainable landscape restoration and establish policy and institutional frameworks to reduce land degradation. The recently completed GEF 5463 (2014-2022) project implemented by the UNDP and executed by the Ministry of Water, in Ruvu and Zigi Catchments of the Eastern Arc Mountains, provides a strong baseline for the proposed project as it has garnered a strong commitment from the Government to address land and ecosystems degradation issues in the Ruvu catchment and initiated the process to mainstream SLM in all land use practices and to improve ecosystem integrity and livelihoods. The gaps identified from this project and lessons learned will be used to carry forward and guide the implementation of demonstration projects.

Other relevant project includes the GEF 7 project implemented by WWF- US Chapter (GEF ID: 10262; 2021-2026), which is promoting integrated land and water management, restoration, and sustainable value chains to prevent deforestation in priority landscapes in the Kilombero Valley in South-Central Tanganyika (Rufiji River Basin, south of the WRB) and North Unguja in Zanzibar. The project will also collaborate with the GEF 7 project (10364; 2022-2027) implemented by the FAO to support Tanzanian communities to increase resilience to climate change through appropriate technologies and innovative practices – the target areas of which includes the Miombo Woodlands of Tanzania mainland which extend substantially through the WRB. All these projects provide a good foundation that the proposed project can build on to continue strengthening the institutional capacity and increase resilience of the communities within the Wami Ruvu basin. The project will also coordinate with the GEF-7 project (GEF ID 10690; 2023-2028) titled “Building the resilience of forest biodiversity to the threats of climate change in Tanzania’s Nature Forest Reserves” which will improve governance, operations and financial management of NFRs and enhance the resilience of their forest biodiversity to the threats of climate change. The project includes two nature reserves within the Pwani Region, including the Pugu-Kazimzumbwi and Uzigua National Forest Reserves which fall within the WRB. The proposed project will draw on lessons learned from the GEF-7 project to ensure climate change impacts of biodiversity are adequately accounted for in the design of interventions, as well as contributing to building the connectivity of NFRs in the basin.

In addition, the project will also build on relevant past and ongoing non-GEF projects that have supported sustainable land and water resources management in the basin and at national level. For example, the Water Sector Development Programme-Phase II (2014/2015-2018/2019) funded by the World Bank. The WSDP-II Programme aimed to strengthen capacity for integrated water resources planning and management in Tanzania by supporting the core functions of basin water boards and WUAs on their conservation work program and priority investments in the Wami Ruvu basin. The outputs of the WSDP included the establishment of the IWRMDP (see below).

GWP-Tanzania in collaboration with its regional office GWP-Southern Africa has also recently completed implementing a EU funded Global Climate Change Alliance Plus programme (2015-2023) on behalf of the Southern Africa Development Community (SADC) in the Wami Ruvu basin. The project aimed to improve the climate resilience of communities through climate resilient IWRM interventions. The situational analysis and lessons drawn from implementing the GCCA+ project provided a basis for developing this project and upscale some of the priority interventions – including aspects related to water infrastructure and strengthening of WUAs.

GWP Tanzania in collaboration with GWP global office and Ministry of Water recently finalized a project in WRB on environmental economics of water as part of quantifying the contribution of water in the national economy. The pilot project was implemented in WRB as a learning curve before rolling the initiative to all basins in Tanzania.

The other project is the Dar Es Salaam Water Security Project, being implemented by the WWF and funded by Anheuser Busch InBev (ABInBev)/Tanzania Breweries Limited (TBL) through WWF UK. The project focuses on improving water quality and quantity as well as protecting watershed biodiversity in the city of Dar es Salaam and satellite towns through bankable nature-based solutions. This project is going to learn from and apply knowledge from the pilot activities being implemented under the WWF project and explore synergies so as to continue building on the achievements already made in the basin.

In addition to coordinating with ongoing initiatives, the project will provide implementation support to three key strategic plans within the Wami-Ruvu Basin. Details on the alignment of these plans with the proposed project and the objectives of the targeted GEF Focal Areas are presented below.

-
    - Integrated Water Resources Management and Development Plan (IWRMDP) for Wami-Ruvu Basin — The IWRMDP is a key component of the water resources component of the Water Sector Development Programme 2006-2025 and is centered on the principles of economic efficiency, social equity and environmental sustainability. The plans objective is to "achieve a sound water resources management and development framework in Wami-Ruvu Basin for optimizing the utilization of the water resources in a sustainable manner, and to promote good governance of water resources through empowering water users, encouraging participatory and transparent decision-making in the allocation, utilization, protection and conservation of water resources, devolving ownership to the user level, and granting secure water rights with responsibilities to the water users, community groups, LGAs, BWB, and CWCs, and promote economic instruments to encourage wise use of water." The proposed project will primarily target Key Areas of Intervention 5 – Environmental Protection and Conservation, which specifically targets ecosystem services, biodiversity and riparian vegetation, as well as Area 6 – Water Demand Management. Moreover, the project will contribute to several other Key Areas of Intervention identified in the plan, including: Area 1- Data and Knowledge Products (through Component 3); Area 2- Capacity Building/Skills Development (through Component 1); Area 4- Water for Socio-Economic Development (through Output 2.1.2). These objectives are well aligned with GEF LD and BD objectives, as described in Section C below.

· Catchment Conservation Plan (CCP) for the Wami-Ruvu Basin Water Board — The CCP was developed as part of the implementation plan of Tanzania's vision for IWRM across all river basins, focused on deliberate efforts to conserve critical catchments in the country. The WRB CCP is one of nine such plans developed, narrowing the national objectives to local needs. The proposed project contributes towards all seven Key Results Areas of the CCP, specifically: i) Environmental Conservation and Management; ii) Water Sources Protection and Management; iii) Livelihood Improvement; iv) Institutional Strengthening; v) Coordination and Institutional Linkages; vi) Financial Sustainability; and vii) Monitoring and Evaluation. The plan identifies 11 priority conservation zones across the basin, noting the drivers of degradation and intervention needs for each zone. This prioritization has been used

alongside data on key biodiversity area to identify target sites and interventions strategies for the proposed project.

- Tanzania Water Investment Programme (TanWIP) 2024-2030 – TanWIP is a pivotal initiative aimed at addressing the investment gap in Tanzania's water sector. Falling under the Continental African Water Investment Programme (AIP), TanWIP provides an enabling framework and priorities for all water-related sectors in the context of ensuring water security for both social needs and economic transformation. The programme has four investment focus areas, namely: 1) Water investment for social wellbeing; 2) Water investment for sustainable development; 3) Investments for strengthening water governance and institutions; and 4) Water investment for climate resilience and disaster management. The proposed project aligns with several priority areas under this framework, including Component 1.1 on Water investment for improved water supply services; Component 1.3 on gender equity and social inclusion; Component 1.4. on livelihood development; Component 3.1 on institutional strengthening; Component 3.2 on water sector financing; and Component 4.2 on integrated environmental sustainability. Moreover, TanWIP identifies 6 potential funding sources to fund investments in the water sector. While these sources include MFIs such as GEF, multiple additional sources have been noted that could complement the GEF finance for the proposed project. Further engagement with the TanWIP secretariat will be held during the next phase of project development to identify potential options for collaboration.

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
118747	0	0	0

Indicator 1.1 Terrestrial Protected Areas Newly created

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0	0	0	0

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)

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)
118747	0	0	0

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)

Chenene Forest Reserve	301515	Strict Nature Reserve	29,836.00						
Mamiwa Kisara Forest Reserves	555623849	Strict Nature Reserve	14,163.00						
Ruvu South Forest Reserve	555623837	Strict Nature Reserve	30,633.00						
Uluguru Nature Forest Reserve	555697520	Strict Nature Reserve	24,115.00						
Zaraninge Forest	303358	Strict Nature Reserve	20,000.00						

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
9000	0	0	0

Indicator 3.1 Area of degraded agricultural lands under restoration

Disaggregation Type	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 under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
9,000.00			

Indicator 3.3 Area of natural grass and woodland under restoration

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

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

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

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)
100000	0	0	0

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)
30,000.00			

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

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)
60,000.00			

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
High Conservation Value Forest	10,000.00			

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Documents (Document(s) that justifies the HCVF)

Title

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	6284502	0	0	0
Expected metric tons of CO_2e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	6,284,502			
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting	2026			
Duration of accounting	20			

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)

Expected metric tons of CO_2e (direct)				
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	100,000			
Male	100,000			
Total	**200,000**	**0**	0	**0**

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

Given the extent of land degradation in the WRB – with over 2.2 million hectares highly degraded, and a further 3 million hectares moderately degraded – the scope and need for rehabilitation is extensive. A catchment conservation plan (CCP) has therefore been produced for the WRB to identify specific targets and locations for conservation, restoration and improved management — providing the basis for the targets set in this project. However, given that the total investment needed to achieve the targets set out in the CCP exceeds the budget available for this project, the proposed project will target a subset of the areas where impact is deemed greatest. The specific locations of intervention will be identified during the next phase of project development.

Preliminary GHG emission reduction targets were calculated using the FAO Ex-ACT tool, assuming 100,000ha under improved management (reducing degradation from large to low) and 9,000ha of reforestation in tropical dry forest. The calculations assumed a 5-year project period and 15-year capitalization period.

The project targets men and women as equal beneficiaries, assuming 40,000 rural households receiving support to adopt improved practices, with an average household size of 5 people. Beneficiaries include farming households adopting improved livelihood practices, those receiving improved access to water resources through infrastructure investments, those trained in SLM and CBFM practices, and communities benefiting from improved water supply in the WRB.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Moderate	The WRB is subject to numerous climate stressors, including drought (particularly in the western area of the basin) and floods (particularly in the central and eastern areas). These climate risks pose a threat to project implementation, particularly in the event of an extreme climate event (drought or flood) occurring during the project implementation. This includes the risk of drought impacting the growth of vegetation planted as part of rehabilitation efforts, or similarly of floods washing away seedlings during early stages of growth. Moreover, reduced agricultural productivity from drought might increase pressure on communities to adopt maladaptive coping strategies, undermining restoration efforts. To address this risk, the project will time restoration efforts with seasonal forecasts to optimize potential for growth and avoid periods of extreme conditions wherever possible. Communities will also be sensitized to the need to conserve restored areas and supported to adopt sustainable coping mechanisms in the event of extreme drought.
Environmental and Social	Moderate	In some hot-spot areas of the basin, there is ongoing social conflict between sedentary crop farmers and nomadic pastoralists, largely related to access to water resources and pastures. In these areas, the project will need to engage closely with these groups both during project preparation and implementation to ensure that all views are considered. Moreover, a conflict analysis will form part of the ESS assessment during the PPG phase. An indigenous people's plan will also be developed to ensure that the rights of minority groups are considered and fairly represented in project interventions.
Political and Governance	Low	The political ecosystem has continued to be nurtured on the platform of dialogue and reconciliation. The country has had a stable political landscape of which provides a good platform for investments. The next elections are scheduled for 2025 and hence we expect heightened political activities as from 2024.There is no anticipation of changes in the governance structures even after elections in 2025.
INNOVATION		
Institutional and Policy	Moderate	The collaboration between the project and other cross-sectoral technical partners can be challenging, especially in the context of overlapping and incoherent policies. The project will hire highly competent staff and put in place partnership agreements to facilitate collaboration. Joint supervision missions with other technical departments will be organised to ensure that the project activities are implemented in line with the spirit and the provisions of the collaborative agreements. This will be followed by annual evaluation of the results achieved by the different partners and refining the provisions of the agreements
Technological		N/A

Financial and Business Model	Low	Recovery from the Covid-19 pandemic has been modest due to strong headwinds created by the ongoing war in Ukraine, tightening global financial conditions, and global economic slow-down. The economic recovery in 2022 nevertheless remains broad based with most sectors rebounding to pre-COVID activity levels. In 2022, a relatively stable exchange rate, coupled with fuel subsidies, helped contain consumer price inflation to just 4.8%, well below the regional average of 10% .
EXECUTION		
Capacity	Moderate	Effective Implementation of the IWRMD plan and catchment conservation plan in WRBWB has been a challenge due to various factors including institutional capacity. However, the basin has continued to implement DP funded strategic programmes with success. The lessons learnt from such previous programmes in the basin will add value in addressing any potential challenge with regards to institutional capacity issues. The national USD 15.02Billion Tanzania Water Investment Programme (2024-2030) is structured along four focus areas i.e. climate resilience, social wellbeing, economic development, governance, and institutional strengthening. In this regard, the proposed GEF intervention will be implemented as part of the larger national effort and hence there will be complementarity and value addition at the national level.
Fiduciary	Low	The VPO and Ministry of Water has wide experience in managing big-sized projects in Tanzania. The Ministry has a proven track record in managing projects of this magnitude and larger project including GEF and World Bank funded projects. The Ministry of Water will work in close collaboration with the co-executing agencies WRBWB and GWPTZ to ensure that the financial management and procurement process run smoothly throughout the project implementation.
Stakeholder	Moderate	The target sites are home to a number of different cultural groups, with conflict arising between different groups (see social risks above). This may create challenges for effective stakeholder engagement, where the voices of one group may not be heard in an open forum if the dominant voice comes from another. Similarly, traditional patriarchal systems may suppress the voice of women in open forums. Stakeholder engagements will, therefore, include focus group discussions targeting individual groups in addition to the larger open forums.
Other	Low	Macroeconomic - The recovery from the Covid-19 pandemic has been modest due to strong headwinds created by the ongoing war in Ukraine, tightening global financial conditions, and global economic slow-down. The economic recovery in 2022 nevertheless remains broad based with most sectors rebounding to pre-COVID activity levels. Macro-economics - In 2022, a relatively stable exchange rate, coupled with fuel subsidies, helped contain

		consumer price inflation to just 4.8%, well below the regional average of 10% .

Overall Risk Rating	Moderate	In line with UNEP policies, guidelines and procedures, a detailed risk assessment will be carried immediately after the inception of the project to identify and manage potential environmental and social risks and impacts associated with the SLR project interventions.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

The proposed project uses an integrated landscape/watershed approach to tackle the drivers of degradation and biodiversity loss across the basin and restore degraded areas to deliver multiple co-benefits. It also uses all four levers of transformation identified under GEF-8, with particular focus on 'Governance and Policies' and 'Multi-stakeholder Dialogues' which are the primary focus of Component 1.

Land Degradation Focal Area: In line with the actions to support biodiversity, the project activities will contribute toward GEF-8 land degradation goal of arresting and reversing current global trends in land degradation, primarily desertification and deforestation. Specifically, the project will contribute to Objective 1 by introducing SLM practices, as well as Objective 2 through restoration efforts, and Objective 3 through drought mitigation actions in drylands. The project will also contribute to Tanzania's commitments under the United Nations Convention to Combat Desertification (UNCCD) of realizing the goals of reversing land degradation through the implementation of the Land Degradation Neutrality (LDN) targets. This includes contributions towards contributing 9,000ha towards the forest restoration target of 11,011,950 ha, as well as contributing 100,000ha[27][1] towards the reducing loss of forest and grassland productivity (targets of 2,640,600ha and 1,714,500ha, respectively) through sustainable land management and reduced soil erosion. Moreover, this initiative will contribute to the realization of Tanzania's pledged to restore 5.2mHa of degraded land and forests by 2030 under the African Forest Landscape Restoration Initiative (AFR100) and therefore contribute to the ultimate goal of bringing 100 million hectares of deforested and degraded landscapes across Africa under restoration by 2030.

Biodiversity Focal Area: Through the conservation and restoration activities (Component 2) in the biodiverse landscapes of Tanzania using an integrated landscape/watershed approach, the project will contribute to the GEF-8 Biodiversity goal of conserving, sustainably using, and restoring globally significant biodiversity. This will include working with rural communities to promote the sustainable use of natural resources, (GEF-8 BD Objective 1), as well as mobilizing domestic resources for biodiversity (GEF-8 BD Objective 3).

In addition, the proposed project will contribute to several of the targets set out under the Kunming-Montreal Global Biodiversity Framework, including: Target 1 – through the development of village land-use plans and Participatory Forest Management programmes; Targets 2 and 3 – through active restoration and conservation efforts under Output 2.2.1; Target 8 – through climate-responsive sustainable land management; Target 9 – through livelihood development initiatives; Target 10 – through agroforestry and climate-resilient agriculture initiatives; Target 11 – through the focus on nature-based solutions and restoring ecosystem services; Target 16 – through awareness campaigns; Target 19 – through the development of innovative financial mechanisms for going SLM practices; Targets 20 and 21 – through the establishment of a knowledge sharing database and M&E system; and Targets 22 and 23 – through the focus on gender-responsive actions and inclusive engagement.

At a national level, the project aligns with the goals of National Biodiversity Strategy and Action Plan (NBSAP), particularly contributing to Strategic Goal B in addressing the direct pressure on biodiversity through sustainable land management and sustainable use of natural resources; and Strategic Goal D in enhancing ecosystem services.

Climate Change Focal Area: Through the restoration efforts, especially the reforestation of at least 9,000 ha of degraded lands, the project has high climate change mitigation potential. The proposed project activities align with national climate change mitigation and adaptation priorities as outlined in several national strategic documents. This includes ambitions under the National Determined Contributions (NDCs) to significantly reduce the impact of climate-related disasters, particularly addressing the impacts of droughts and floods on the agriculture sector, as well as to reduce carbon emissions in the Land Use, Land-Use Change and Forestry (LULUCF) sector. Moreover, the sustainable management and resilience of water resources is the first priority action listed in the National Climate Change Response Strategy 2021-2026, which includes prioritization of IWRM and water source protection, as well as rainwater harvesting and sustainable use of groundwater resources.

National Priorities: The proposed project is aligned with the National Environmental Master Plan for Strategic Interventions (2022 – 2032), which guides strategic and coordinated environmental interventions at all levels, based on spatial variation of environmental challenges and intervention options. In this regard, implementation of this project will address the environmental challenges identified in the masterplan such as: land and wetland degradation; destruction of wildlife habitat and loss of biodiversity; climate change; pollution; loss of soil productivity; deforestation and forest degradation among others. Furthermore, the project will contribute to several other national priorities and key strategic plans, including: Tanzania Development Vision 2025; Third Five Year Development Plan (2021/22 - 2025/26); The Ruling Party Manifesto, National Environmental Policy (2021), EMA (2004), Climate Change Response Strategy (2021 – 2026), National Environmental Master Plan for Strategic Interventions (2022 – 2032); The Third phases of the Agricultural Sector Development Program (ASDP-III) and Water Sector Development Program (WSDP-III).

[1] Specific split between forest and rangelands to be determined during PPG phase.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities: Yes

Civil Society Organizations: Yes

Private Sector: Yes

Provide a brief summary and list of names and dates of consultations

Several key stakeholder engagements were held in the preparation of this project concept, as listed below:

Engagement	Groups in Attendance	Key Notes
GCCA+ Engagement, Morogoro, *November 2022*	GWP Tanzania Ministry of Water Tanzania Vice Presidents Office Department of Environment National Irrigation Commission Sokoine University Tanzania Meteorological Authority Africa Environment Solutions Ardhi University Dar es Salaam Institute of Technology Donor Parties Group - Water University of Dar es Salaam WRBWB WUAs	Initial engagement during the inception workshop for the GCCA+ project where stakeholders resolved to scale the pilot interventions under the GCCA+ project to cover all other hot spot areas of the WRBW. GWP Tanzania was requested by stakeholders to support MoW and WRBWB to develop a GEF project for WRBWB.

Engagement	Groups in Attendance	Key Notes
	Pastoralists Mtibwa Sugar Co Ltd Tanzania Agricultural Research Institute Tanzania Forest Research Institute Local Government Resource Advisors Morogoro Water Supply and Sanitation Authority Shahidi wa Maji TAWASANET (network of all CSO's/NGO's in the Water Sector)	
GCCA+ Engagement *Mtumba, Dodoma* *April2023*	GWP Tanzania Tanzania Vice Presidents Office Department of Environment	An initial stakeholder workshop was hosted by GWP Tanzania in Mtumba (Dodoma) at VPO's Office to discuss a potential project concept under the GCCA+ Program with the Vice President Office and the Department of Environment. The outcome of this engagement laid the foundation for the development of a Concept Note which was eventually integrated into the current proposed project.
Multi-stakeholder Engagement workshop *Dar es Salaam* *June 2023*	UNEP GWP Tanzania GWP SA WRBWB Tanzania Vice Presidents Office Tanzania Meteorological Authority FAO TAHMO Development Partners Group (DPG) on Water & Sanitation University of Dar es Salaam IUCN Lahmeyer Consulting Company	A multi-stakeholder engagement workshop was hosted by GWP in Dar es Salaam to present the project concept and obtain input from national- and basin-level stakeholders on the project design, including intervention strategy and target sites.
Community Consultations *WRB* *June 2023*	GWP Tanzania WRBWB	A site visit was undertaken within the WRB to engage with local communities to understand their interactions with natural resources and their needs. Pilot sites under the GCCA+ project were visited, and beneficiary communities and WUAs provided insights into the lessons learned from the project.

Engagement	Groups in Attendance	Key Notes
	WUA Crop Farmers Pastoralists	
Water Sector Engagement Workshop *Dar es Salaam* *August 2023*	UNEP GWP Tanzania WRBWB National Water Board Ministry of Water	Another workshop was hosted by GWP Tanzania and UNEP, targeting key stakeholders in the water sector.
Basin visit and community consultations WRB August 2023	GWP Tanzania WMRBWB National Irrigation Commission Sokoine University of Agriculture Water User Associations Farmers Pastoralists Tanzania Agricultural Research Institute Tanzania Forest Research Institute Local Government	A stakeholder's workshop and site visit led by GWP Tanzania was undertaken within the WRB to engage with key stakeholders and local communities to understand their interactions with natural resources and their needs. Beneficiary communities, local government authorities and WUA's identified hotspot areas that needed urgent attention.

The successful implementation of the proposed project will be heavily dependent on active and ongoing engagement with stakeholders. A number of potential stakeholders have been identified, including government entities, target communities, civil society and the private sector. Each group holds a unique stake in the project, or will be independently impacted by the project activities.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant($)	Agency Fee($)	Total GEF Financing ($)
UNEP	GET	Tanzania	Climate Change	CC STAR Allocation: CCM-1-4	Grant	888,242.00	84,383.00	972,625.00
UNEP	GET	Tanzania	Land Degradation	LD STAR Allocation: LD-1	Grant	2,131,781.00	202,520.00	2,334,301.00
UNEP	GET	Tanzania	Biodiversity	BD STAR Allocation: BD-1	Grant	1,598,836.00	151,889.00	1,750,725.00
UNEP	GET	Tanzania	Land Degradation	LD STAR Allocation: LD-3	Grant	710,593.00	67,506.00	778,099.00
Total GEF Resources ($)						**5,329,452.00**	**506,298.00**	**5,835,750.00**

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount ($)

150000

PPG Agency Fee ($)

14250

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	PPG($)	Agency Fee($)	Total PPG Funding($)
UNEP	GET	Tanzania	Climate Change	CC STAR Allocation: CCM-1-4	Grant	25,000.00	2,375.00	27,375.00
UNEP	GET	Tanzania	Land Degradation	LD STAR Allocation: LD-1	Grant	60,000.00	5,700.00	65,700.00
UNEP	GET	Tanzania	Biodiversity	BD STAR Allocation: BD-1	Grant	45,000.00	4,275.00	49,275.00
UNEP	GET	Tanzania	Land Degradation	LD STAR Allocation: LD-3	Grant	20,000.00	1,900.00	21,900.00
Total PPG Amount ($)						**150,000.00**	**14,250.00**	**164,250.00**

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total($)
UNEP	GET	Tanzania	Climate Change	CC STAR Allocation	1,000,000.00
UNEP	GET	Tanzania	Biodiversity	BD STAR Allocation	3,200,000.00
UNEP	GET	Tanzania	Land Degradation	LD STAR Allocation	1,800,000.00
Total GEF Resources					**6,000,000.00**

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing($)	Co-financing($)

CCM-1-4	GET	888,242.00	4427500
BD-1-1	GET	1,598,836.00	8855000
LD-1	GET	2,131,781.00	10958063
LD-3	GET	710,593.00	3652687
Total Project Cost		**5,329,452.00**	**27,893,250.00**

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	WRBWB	In-kind	Recurrent expenditures	65000
Recipient Country Government	Tanzania Forest Services Agency	In-kind	Recurrent expenditures	12500000
Recipient Country Government	Local Government Authorities	In-kind	Recurrent expenditures	4631050
Civil Society Organization	Eastern Arc Mountains Endowment Fund	In-kind	Recurrent expenditures	1000000
Private Sector	Private Sector CSR	In-kind	Recurrent expenditures	7500000
Recipient Country Government	Tanzania Forest Fund	In-kind	Recurrent expenditures	500000
Recipient Country Government	MoW/WRBWB - Water Sector Development Programme III (See description below)	Public Investment	Investment mobilized	1097200
Others	WWF - Dar es Salaam Water Security (DWS) Project - NGO	Grant	Investment mobilized	600000
Total Co-financing				**27,893,250.00**

Describe how any "Investment Mobilized" was identified

Investment mobilized from the Government of Tanzania through the Water Sector Development Programme Phase III, administered by the Ministry of Water and Wami-Ruvu Basin Water Board will include:

- Enhance Water Users compliance with laws and regulations (2023–2025; USD 32,000): Enforce legislation related to land use, environment and water resources management.
- Restoration of degraded catchment areas (2023–2028; USD 180,000): Preparation of Land Use plans in Kinyasungwe and Wami Sub Catchment, facilitate conservation agriculture practices and conservation of water sources.

- Enhance surface water and groundwater monitoring (2023–2025; USD 100,000): Rehabilitate establish and upgrade surface and groundwater monitoring stations and improve data collection process.
- Develop Basin Aquifer Mapping (2023–2026; USD 165,200): Conduct study to identify recharge zones and potential exploration areas for effective groundwater management.
- Climate vulnerability assessment and adaptation plans (2023–2026; USD 84,000): Conduct study to identify climate vulnerable communities and develop adaptation plans.
- Comprehensive inventory survey of water users (2023–2027; USD 140,000): Surface and groundwater management using mobile application to identify permitted and non-permitted water users.
- Enhance community awareness and stakeholder engagement (2023–2025; USD 96,000): Stakeholder forums for awareness raising, formation of catchment and sub catchment committee, formation and strengthening of WUAs.
- Pollution and water quality monitoring (2023–2028; USD 300,000): Conduct comprehensive inventory for point and non-point water pollution (artisan Mining agriculture and industrial pollution).

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Victoria Luque	10/17/2023	Daniel Pouakouyou	00254701069433	daniel.pouakouyou@un.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Kemilembe S Mutsa	Director of Environment and GEF Operational Focal Point	Vice-President's Office United Republic of Tanzania	10/16/2023

ANNEX C: PROJECT LOCATION

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

The preliminary geo-referenced information and map where the project interventions will take place is provided in the table and map below.

Preliminary Geo Locations of the project sites (Decimal Degrees)

Landscapes	Latitude (S)	Longitude (E)
Kinyasungwe sub-catchment	-5.93	35.76
Mkondoa (Gairo District	-6.16	36.87
Kisarawe District	-6.91	39.07
Chenene Forest Reserve	-6.00	35.00
Ulunguru National Forest Reserve	-7.03	37.65

Mamiwa Kisara Forest Reserves	-6.35	36.94
Zaraninge Forest	-6.00	38.35
Ruvu South Forest Reserve	-6.33	39.50

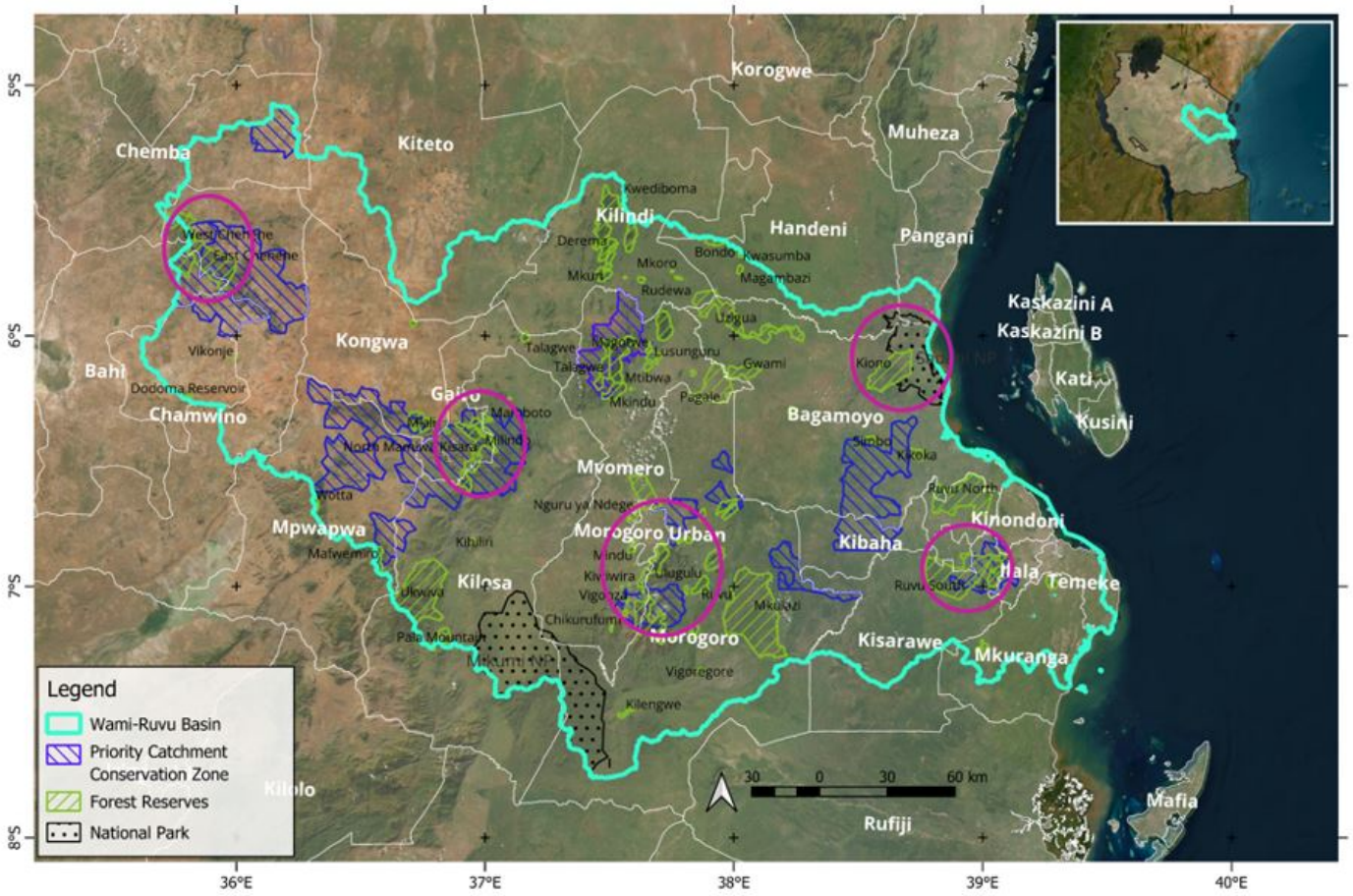


Figure 8. Potential Sites for intervention. Sites will target sites where areas of high biodiversity value (including forest reserves and national parks) overlap with priority areas for catchment conservation. Priority areas of overlap are circled.

ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title
SRIF_Tanzania 16 Oct 2023

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Principal Objective 2	No Contribution 0	Principal Objective 2	Principal Objective 2

ANNEX F: TAXONOMY WORKSHEET

Influencing models			
	Transform policy and regulatory environments		
	Strengthen institutional capacity and decision-making		
	Convene multi-stakeholder alliances		
	Demonstrate innovative approaches		
Stakeholders			
	Beneficiaries		
	Local Communities		
	Civil Society		
		Community Based Organization	
		Non-Governmental Organization	
		Academia	
		Trade Unions and Workers Unions	
	Type of Engagement		
		Information Dissemination	
		Partnership	
		Consultation	
		Participation	
	Communications		
		Awareness Raising	
		Education	
		Public Campaigns	
		Behavior Change	
Capacity, Knowledge and Research			
	Enabling Activities		
	Capacity Development		
	Knowledge Generation and Exchange		
		Theory of Change	
		Adaptive Management	
		Indicators to Measure Change	
	Innovation		
	Knowledge and Learning		
		Knowledge Management	
		Innovation	
		Capacity Development	
		Learning	
	Stakeholder Engagement Plan		
Gender Equality			
	Gender Mainstreaming		
		Beneficiaries	
		Women groups	
		Sex-disaggregated indicators	
		Gender-sensitive indicators	
	Gender results areas		
		Access and control over natural resources	
		Capacity development	
		Awareness raising	
		Knowledge generation	
Focal Areas/Theme			
	Biodiversity		
		Protected Areas and Landscapes	
			Terrestrial Protected Areas
			Coastal and Marine Protected Areas
			Productive Landscapes
			Productive Seascapes
			Community Based Natural Resource Management
		Mainstreaming	
			Extractive Industries (oil, gas, mining)
			Forestry (Including HCVF and REDD+)
			Tourism

			Agriculture & agrobiodiversity
			Fisheries
			Infrastructure
			Certification (National Standards)
			Certification (International Standards)
		Species	
			Illegal Wildlife Trade
			Threatened Species
			Wildlife for Sustainable Development
			Crop Wild Relatives
			Plant Genetic Resources
			Animal Genetic Resources
			Livestock Wild Relatives
			Invasive Alien Species (IAS)
		Biomes	
			Mangroves
			Coral Reefs
			Sea Grasses
			Wetlands
			Rivers
			Lakes
			Tropical Rain Forests
			Tropical Dry Forests
			Temperate Forests
			Grasslands
			Paramo
			Desert
		Financial and Accounting	
			Payment for Ecosystem Services
			Drylands
	Land Degradation		
		Sustainable Land Management	
			Restoration and Rehabilitation of Degraded Lands
			Ecosystem Approach
			Integrated and Cross-sectoral approach
			Community-Based NRM
			Sustainable Livelihoods
			Income Generating Activities
			Sustainable Agriculture
			Sustainable Pasture Management
			Sustainable Forest/Woodland Management
			Improved Soil and Water Management Techniques
			Sustainable Fire Management
			Drought Mitigation/Early Warning
		Land Degradation Neutrality	
			Land Productivity
			Land Cover and Land cover change
			Carbon stocks above or below ground
		Climate Change Mitigation	
			Agriculture, Forestry, and other Land Use