The Rufiji Delta Landscape Strategy

WETLANDS INTERNATIONAL-TANZANIA

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ACRONYMS AND ABBREVIATIONS

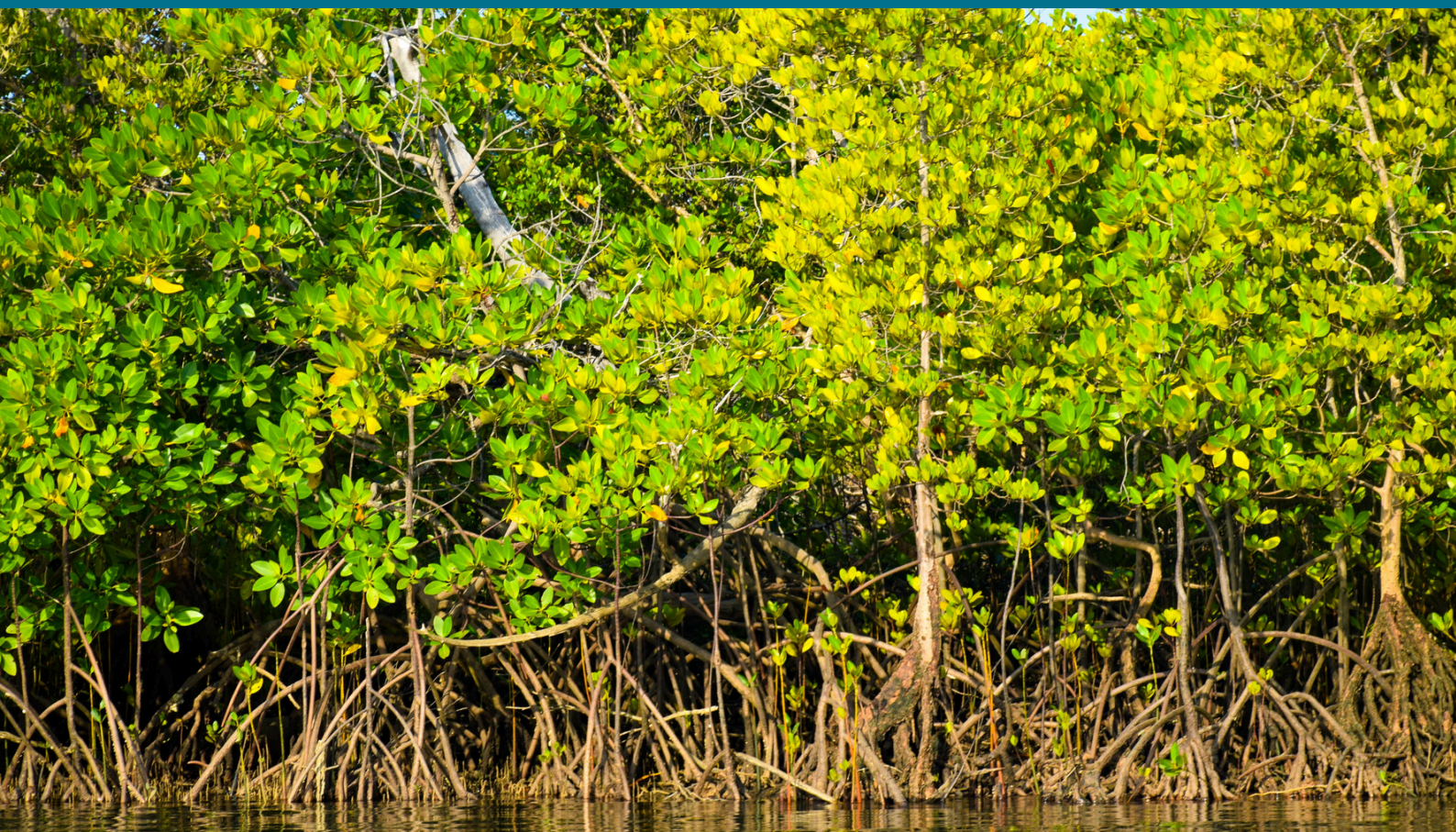
BMU	**Beach Management Unit**
CBFM	**Community Based Forest Management**
CBOs	**Community Based Organisations**
CSA	**Climate-Smart Agriculture**
CSF	**Climate-Smart Forestry**
CSOs	**Civil Society Organisations**
GIS	**Geographical Information System**
IUCN	**International Union for Conservation of Nature**
LGAs	**Local Government Authorities**
KDC	**Kibiti District Council**
MJUMITA	**Community Forest Conservation Network of Tanzania**
MNRT	**Ministry of Natural Resources and Tourism**
NGOs	**Non-Governmental Organisations**
RDL	**Rufiji Delta Landscape**
RDLS	**Rufiji Delta Landscape Strategy**
TAFORI	**Tanzania Forest Research Institute**
TFCG	**Tanzania Forest Conservation Group**
TFS	**Tanzania Forest Services Agency**
URT	**United Republic of Tanzania**
USAID	**United States Agency for International Development**
VLFR	**Village Land Forest Reserve**
VLUM	**Village Land Use Management Committee**
VLUP	**Village Land Use Plan**
VNRC	**Village Natural Resources Committee**
WWF	**World Wide Fund for Nature**

DEFINITION OF TERMS AND TERMINOLOGIES

TERM	DEFINITION
Biodiversity	The variability among living organisms and the ecological complexes of which they are a part. This includes diversity within species, between species, and of ecosystems.
Climate change	Refers to both global warming driven by human emissions of greenhouse gases and the resulting large-scale shifts in weather patterns.
Deforestation	The direct human-induced conversion of forested land to non-forested land.
Ecosystem services	The various direct and indirect benefits that people derive from ecosystems, including provisioning (e.g., food, fiber, biomass, freshwater, natural medicine), supporting (e.g., nutrient cycling, soil formation), regulating (e.g., air quality, climate), and cultural (e.g., recreation, eco-tourism, spiritual).
Forest degradation	Any process that reduces the density of flora or fauna in a forest, especially by the removal of trees, resulting in decreased provision of ecosystem services.
Forest	An area of land covering at least 0.5 hectares, with a minimum tree crown cover of 10% and a minimum height of 3.0 meters.
Forest reserve	A legally recognized and demarcated area for the production of timber and other forest products, water catchment, and biodiversity conservation
Forest resources	Forest and forest produce, including wood and non-wood resources found in a forest.
Land use plan	Allocates and zones land for its desirable use, considering environmental conditions and people's needs. It also formulates legal and administrative tools to enforce the plan.
Local community	A group of interacting people with a common culture, traditions, and beliefs, who share a common environment.
Stakeholder	Any individual, group, organized or unorganized, or institution that shares a common interest or stake and can negatively or positively impact a specific issue or system within forest sector development.

DEFINITION OF TERMS AND TERMINOLOGIES

TERM	DEFINITION
Sustainable forest management	The stewardship and use of forests and forestlands at a rate that maintains their biodiversity, productivity, regeneration capacity, vitality, and ecological, economic, and social functions, without damaging other ecosystems.
Tenure	The holding of land or other property through arrangements such as leasehold, freehold, customary ownership, and others.
Wetlands	Areas of marsh, fern, peatland, or water—natural or artificial, permanent or temporary—with water that is static or flowing, fresh, brackish, or salty, including areas of marine water with a depth at low tide not exceeding six meters.
Village Land Use Plan	A plan prepared at the village level that allocates and zones land to its desirable use, respecting environmental conditions and people's needs, and formulates legal and administrative tools to enforce the plan.
Wildlife	Any wild and indigenous animals and plants, their habitats, and ecosystems found on land or water, including exotic species introduced to Tanzania, wild animals in transit, or temporarily maintained in captivity.



Executive Summary

The Rufiji Delta Landscape Strategy (RDLS) 2025-2050 is a long-term framework designed to ensure the sustainable management and conservation of one of Tanzania's most ecologically and socio-economically significant landscapes. The Rufiji Delta Landscape (RDL) harbours diverse ecosystems, including (1) Marine (mangroves, Seagrass and Corals), (2) Freshwater (Rivers) and Terrestrial (natural forests and agricultural). The ecosystems support the livelihoods of thousands of people and nature. However, the RDL faces various environmental and socio-economic challenges, including habitat destruction, resource over-exploitation, climate change, and land tenure conflicts.

This strategy developed collaboratively with stakeholders through a participatory process, aims to address these issues while promoting the resilience of ecosystems and communities. It builds on previous efforts, such as the Rufiji Environmental Management Project (REMP), and incorporates findings from various stakeholder consultations, reports, and 4R diagnosis and visioning workshops. These workshops were instrumental in refining the vision, mission, and strategic objectives for managing the Rufiji Delta Landscape.

VISION AND MISSION

The agreed vision for the Rufiji Delta Landscape is:

"Rufiji Landscape is sustainably managed for ecosystem services and community resilience."

The mission of the RDLS is to

"To collaboratively manage the Rufiji Landscape through inclusive and sustainable practices that safeguard ecosystems, enhance climate resilience, and support equitable socio-economic development."

STRATEGIC OBJECTIVES

The RDLS outlines six strategic objectives, refined through stakeholder consultations, to be achieved between 2025 and 2050:

1. Enhanced water access and quality: Ensuring sustainable management of water resources for both ecosystem health and community use.
2. Secured land tenure and equitable resource access: Addressing land tenure issues to reduce conflicts and ensure fair access to natural resources.
3. Ensured sustainable livelihoods and socio-economic well-being: Promoting alternative livelihoods and improving socio-economic conditions to reduce pressure on natural resources.

4. Conserved biodiversity and protected ecosystems: Protecting the unique flora and fauna of the delta landscape to sustain biodiversity.
5. Strengthened governance and institutional capacity: Building capacity among local institutions and improving governance structures to manage the delta's landscape resources better.
6. Adapt to and mitigate the impacts of climate change: Enhancing the resilience of both ecosystems and communities to the effects of climate change, including rising sea levels and extreme weather events.

ECOLOGICAL SIGNIFICANCE AND CHALLENGES

The Rufiji Delta Landscape (RDL) is an ecological hotspot, home to interconnected ecosystems that include mangrove forests, the Lower Rufiji Floodplain, seagrass meadows, and coral reefs. These ecosystems are essential for carbon sequestration, coastal protection, and supporting rich biodiversity. Mangroves serve as critical breeding grounds for marine life, while the floodplain provides fertile soils and vital habitats for numerous species. Seagrass meadows and coral reefs enhance marine productivity, contributing to food security and livelihoods for local communities. Together, these ecosystems form a natural buffer against climate impacts, such as storm surges and coastal erosion, while supporting sustainable livelihoods.

However, the RDL faces significant ecological challenges. Mangrove deforestation, driven by overharvesting for firewood and timber, threatens critical habitats, while unsustainable agricultural practices degrade soils in the Lower Rufiji Floodplain. Water pollution from agricultural runoff and industrial waste further impacts these fragile ecosystems. Climate change compounds these issues, with rising sea levels, increased salinity, and extreme weather events putting additional stress on mangroves, seagrass meadows, and coral reefs. The RDLS emphasizes the need for sustainable resource management to combat habitat degradation and biodiversity loss. It calls for improved water management, protection of mangroves and other critical habitats, habitat restoration and enhanced climate-resilience strategies.

SOCIO-ECONOMIC CONTEXT

The livelihoods of communities in the Rufiji Delta Landscape are directly tied to the health of its ecosystems. Fishing (in marine, blackish and freshwater), farming, and harvesting of forest products are the main economic activities, but environmental degradation, resource depletion, and unclear land tenure rights are putting increasing pressure on these livelihoods. The RDLS seeks to improve socio-economic well-being by promoting alternative, sustainable livelihood options, securing equitable resource access, and resolving land tenure conflicts. The strategy encourages the adoption of sustainable agricultural practices and the development of economic incentives to reduce over-reliance on natural resources.

INSTITUTIONAL GAPS AND GOVERNANCE

Weak governance, limited stakeholder coordination, and insufficient financial resources have hindered previous conservation and development efforts in the Rufiji Delta Landscape. The RDLS addresses these challenges by advocating for strengthened governance structures, improved institutional capacity, and aligned rights and responsibilities among all stakeholders. The strategy emphasizes inclusive stakeholder engagement, ensuring that local communities, government agencies, NGOs, and the private sector all play active roles in managing the delta. The strategy also outlines sustainable financing mechanisms to support its long-term implementation, including payments for ecosystem services (PES), carbon credits, eco-tourism, and partnerships with development organisations.

IMPLEMENTATION AND MONITORING

The Rufiji Delta Landscape Core Working Group (RDCWG) will implement the strategy, with oversight from representatives of local communities, government agencies, NGOs, and research institutions. Monitoring and evaluation (M&E) will be an integral part of the strategy's implementation, ensuring progress is tracked through periodic reviews, mid-term evaluations in 2035, and a final evaluation in 2050. The M&E framework will focus on key performance indicators related to water access, biodiversity conservation, livelihood improvements, and institutional capacity building.

KEY SUCCESS FACTORS

The success of the RDLS will depend on several key factors:

Inclusive stakeholder participation

ensuring active engagement from local communities, government bodies, and private sector partners.

01.

Strong governance and institutional capacity

with clear stakeholder roles and responsibilities.

02.

Sustainable financing

through innovative funding sources like PES and carbon credits to support long-term conservation and development goals.

03.

Climate resilience

focusing on building adaptive capacity to mitigate the impacts of climate change.

04.

Gender equality and social inclusion ensure that conservation and development benefits

are equitably distributed among all community members.

05.

The strategy also identifies potential risks, such as political instability, land conflicts, and environmental disasters. It includes adaptive management measures to mitigate these risks and ensure the strategy remains responsive to changing circumstances.

CONCLUSION

The Rufiji Delta Landscape Strategy 2025-2050 provides a comprehensive, long-term framework for the sustainable management of the Rufiji Delta. By integrating ecological conservation, socio-economic development, and climate resilience, the strategy aims to protect the RDL Landcape's unique ecosystems while improving the livelihoods of local communities. Stakeholders are urged to fully commit to implementing the strategy to ensure that the Rufiji Delta Landscape continues to provide essential ecosystem services and economic benefits for present and future generations.

1.0. INTRODUCTION

1.1.Background and Description of the Rufiji Delta Landscape

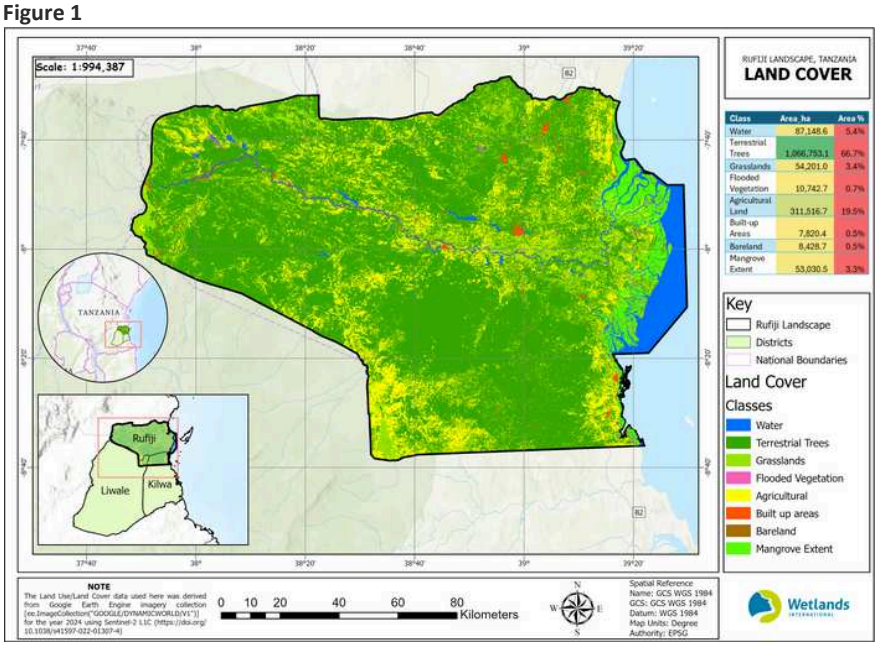
Tanzania is renowned for its rich biodiversity and expansive forested landscapes, covering approximately 48.1 million hectares, which account for about 55% of the country's total land area (URT, 2017). These forests encompass diverse ecosystems, with woodlands dominating about 93% of the forested area, while the remaining 7% comprises lowland forests, humid montane forests, mangrove forests, and plantations. Mangrove forests, in particular, account for about 0.3% of the total forest area. The country's exceptional biodiversity is attributed to its wide range of habitats, ecosystems, and climatic conditions (MNRT, 2022). Approximately 32.5% of Tanzania's land is dedicated to wildlife conservation areas, including National Parks, Game Reserves, Ramsar Sites, and Wildlife Management Areas (WMAs), which support numerous species and protect critical water catchments.

The Rufiji Delta Landscape (RDL) is an ecologically and socio-economically significant region within Tanzania's Rufiji River Basin. This area is home to extensive mangrove forests that provide essential ecosystem services such as coastal protection, water regulation, and biodiversity support. The landscape consists of interconnected ecosystems, including floodplains, seagrass beds, coral reefs, and natural forests, all of which are crucial for sustaining biodiversity and supporting local livelihoods. The floodplains, made up of mudflats, freshwater swamps, and brackish wetlands, play a vital role in water retention, nutrient cycling, and fisheries production. Seagrass meadows in shallow coastal waters act as nurseries for marine life, enhance carbon sequestration, and protect shorelines from erosion. Offshore coral reefs serve as biodiversity hotspots, safeguarding marine ecosystems while buffering the coastline from wave action. Meanwhile, natural forests, such as mangroves, coastal woodlands, and riverine forests, provide habitats for wildlife, offer timber and non-timber forest products, and contribute to carbon storage and climate resilience. Together, these ecosystems are essential for coastal protection, sustaining fisheries, and balancing conservation with sustainable development.

Using the 4 Returns Framework and the Three Zones Concept, the Rufiji landscape is structured into three key areas that reflect current land uses and guide future transformation towards sustainability:

the Natural Zone includes areas currently dominated by mangrove, wetlands, rivers and terrestrial natural forests, prioritising their conservation and restoration; the Combined Zone, encompasses existing agricultural lands such as floodplains and other farming areas, where sustainable practices like agroforestry and climate-smart agriculture can be promoted; and the Economic Zone covers urban settlements and areas where processing industries, markets and shops area are located. This classification of current land uses serves as the baseline for monitoring progress and informs interventions that balance ecological integrity, community resilience and economic development across the landscape (Figure 1). A land-use map helps visualise these zones, supporting strategic planning and conservation efforts).

Figure 1



Like other important conservation areas in Tanzania, Rufiji Delta Landscape faces several challenges, including environmental degradation, unsustainable land use practices, and the impacts of climate change. Human settlements and subsistence agriculture, particularly rice farming and fishing, are key economic activities in the Landscape. However, overreliance on natural resources, coupled with population growth and economic pressures, has led to deforestation, loss of biodiversity, and reduced ecosystem services.

The Rufiji Delta Landscape Strategy (RDLS) 2025-2050 has been developed to address these challenges through sustainable landscape management. The strategy aims to balance conservation efforts with socio-economic development, recognising the critical role that local communities play in stewardship. It is part of a broader effort to ensure that Tanzania's forest corridors, including the Rufiji Delta, remain interconnected to facilitate the movement of wildlife, maintain biodiversity, and support the livelihoods of the communities that depend on them.

1.2 Ecological and Socio-Economic Importance of the Rufiji Delta Landscape

The RDL is home to diverse ecosystems, including mangrove forests, sea grass, and coral reefs. These ecosystems contain fresh water and support a wide variety of species. Mangroves are particularly notable for protecting shorelines, reducing the impact of storm surges, and providing breeding grounds for fish and other marine species. These ecosystems are vital for biodiversity and the local communities that rely on them for fishing, agriculture, and forestry.

In terms of biodiversity, the Rufiji Delta is home to many plant and animal species, many of which are endemic or threatened. The mangrove forests, notably, support a rich array of birdlife, fish, and crustaceans, making the delta a crucial site for conservation and sustainable use. The delta's Landscape socio-economic significance cannot be overstated. Local communities depend heavily on natural resources for their livelihood, fishing, rice farming, and wood harvesting from natural forests. Subsistence agriculture is widespread, with maize, rice, and cassava being the main food crops. The landscape also produces cash crops, such as coconuts and spices, sold in local and regional markets.

Despite its ecological and economic value, the Rufiji Delta Landscape faces numerous threats. Deforestation, illegal logging, unsustainable agricultural practices, and overfishing have degraded natural habitats. Additionally, climate change, characterised by rising sea levels, increasing salinity, and more frequent extreme weather events, upstream development, and infrastructure development, poses a significant threat to the region's ecosystems and the livelihoods of its residents

1.3 The Need for the Rufiji Delta Landscape Strategy

The Rufiji Delta Landscape Strategy (RDLS) 2025-2050 was developed as a comprehensive framework to address the pressing ecological and socio-economic challenges facing the landscape. The implementation of the Rufiji Delta Landscape Strategy (RDLS) will be coordinated through a multi-level structure that ensures alignment from national to local levels.

Strategic oversight will be provided by national government bodies such as the Rufiji Water Basin Office, while Wetlands International Tanzania, IUCN, and development partners will lead coordination and technical support. Kibiti and Rufiji District Councils will carry out district-level implementation in collaboration with institutions like TFS and NEMC. At the grassroots level, Village Environmental Committees, Ward Development Committees, and village leaders will drive on-the-ground action, supported by knowledge and monitoring input from research institutions such as the University of Dar es Salaam and the Sokoine University of Agriculture. This inclusive structure ensures effective collaboration, accountability, and long-term sustainability. This strategy builds upon previous conservation efforts, such as the Rufiji Environmental Management Project (REMP) and ongoing initiatives like Mangrove Capital Africa (MCA) and Source to Sea (S2S). Over the years, the Rufiji Delta Landscape has been the focus of several conservation and sustainable management interventions. Since 1998, REMP has worked to integrate environmental conservation with sustainable development by creating resource management plans and engaging local communities. Other initiatives include Mangrove conservation efforts that have focused on protecting Tanzania's largest mangrove forest (48,030 ha) from threats such as agricultural expansion and salt production. Additionally, seagrass bed and coral reef conservation efforts, particularly near Mafia Island, have emphasised maintaining water quality and sediment control, recognising the role of mangroves in supporting marine biodiversity.

Over the past two decades, these initiatives have contributed significantly to conservation and management efforts in the Rufiji Delta. However, these programmes often fell short of delivering sustainable outcomes due to fragmented implementation, limited coordination across sectors and governance levels, short project life spans, weak integration of local livelihoods, and persistent institutional and policy gaps. The Rufiji Delta Landscape Strategy (RDLS) addresses these limitations by offering a unifying, long-term vision that aligns diverse actors under a coordinated landscape approach.

It adds value through clearly defined implementation pathways, adaptive learning systems, and a strong emphasis on community ownership and cross-sector integration—laying the groundwork for lasting ecological resilience, inclusive development, and transformative change across the delta.

The RDLS 2025-2050 integrates lessons from these past and ongoing initiatives and provides a coordinated approach to sustainable natural resource management. It highlights the importance of collaboration among various stakeholders, including local communities, government agencies, non-governmental organizations (NGOs), and the private sector, ensuring long-term ecological resilience and sustainable livelihoods for the landscape. The RDLS aims to address key ecological and socio-economic challenges in the delta landscape through a multifaceted approach that includes biodiversity conservation, sustainable livelihoods, water resource management, sustainable agriculture, sustainable fisheries, Wildlife corridors, and climate change adaptation. By implementing this strategy, stakeholders will work together to protect the Rufiji Delta's ecosystems while ensuring that local communities continue to benefit from the landscape's natural resources.

The strategy outlines its vision, mission, and strategic objectives for achieving these goals, ensuring that the Rufiji Delta remains a resilient, thriving landscape for present and future generations.

1.2. Values and Threats to the Rufiji Delta Landscape (RDL)

1.2.1 Values of the Rufiji Delta Landscape

The Rufiji Delta Landscape (RDL) is a vital ecological and socio-economic asset, encompassing a diverse array of ecosystems, including mangrove forests, seagrass meadows, coral reefs, terrestrial forests, floodplains, and both freshwater and brackish water systems. These ecosystems provide critical habitats for a wide range of species, many of which are vulnerable, endangered, or endemic to the region.

The mangrove forests are especially important as breeding grounds for marine life, while also playing a key role in carbon sequestration and serving as natural barriers against coastal erosion and storm surges. Seagrass meadows support marine biodiversity, enhance water quality, and prevent coastal erosion, while coral reefs provide habitat for marine species and protect coastlines from wave action. The floodplains act as natural water storage systems that regulate water flow and mitigate flood risks, supporting migratory birds and aquatic species. The terrestrial forests serve as carbon sinks and provide habitat for rare species, while grasslands offer grazing areas for herbivores and are vital to the food web. The brackish water systems create unique environments for migratory fish and other aquatic species.

In addition to their ecological importance, these ecosystems are critical to the livelihoods of local communities, who rely on the delta for fishing, agriculture, and forestry. Subsistence farming fishing, and harvesting mangrove products such as firewood and timber are vital for local economies. Cash crops, such as rice and coconuts, are cultivated in the delta, and the landscape is known for producing various spices. These ecosystem goods and services are integral to the well-being of the people living in the delta, contributing to food security, income generation, and the cultural practices of the local communities.

The Rufiji Delta also serves as a wildlife corridor for animals migrating from the Selous Game Reserve (part of the Selous-Nyerere National Park) and the Udzungwa Mountains, connecting these protected areas to the coast. This corridor facilitates the movement of large mammals, including elephants, buffaloes, and antelopes, as well as various bird species and other wildlife.The delta's biodiversity and ecosystems also offer ecotourism opportunities, such as birdwatching, boat tours, and cultural tourism, providing economic benefits while promoting conservation. The health of the Rufiji Delta's ecosystems is crucial not only for maintaining biodiversity but also for sustaining the cultural practices, food security, and income generation of local communities, ensuring long-term environmental and socio-economic sustainability.

The landscape is home to a diverse range of fauna. Mammals such as the hippopotamus (Hippopotamus amphibius), Nile crocodile (Crocodylus niloticus), African elephant (Loxodonta africana), African lion (Panthera leo), leopard (Panthera pardus), and African wild dog (Lycaon pictus) are found in the region. The area is also an important habitat for birds, including the African skimmer (Rynchops flavirostris), mangrove kingfisher (Halcyon senegaloides), lesser flamingo (Phoeniconaias minor), Goliath heron (Ardea goliath), and great white pelican (Pelecanus onocrotalus).

Reptiles in the region include the Nile monitor lizard (Varanus niloticus), green sea turtle (Chelonia mydas), hawksbill turtle (Eretmochelys imbricata), and African rock python (Python sebae). Additionally, amphibians like the Witu caecilian (Schistometopum gregorii) and African bullfrog (Pyxicephalus adspersus) contribute to the rich biodiversity of this vital ecosystem. This diverse wildlife makes the landscape an excellent destination for ecotourism, offering opportunities for birdwatching, boat tours, and cultural tourism, which have the potential to generate income while promoting conservation

1.2.2 Threats to the Rufiji Delta Landscape

Despite its immense ecological and socio-economic importance, the Rufiji Delta is under growing threat from a combination of unsustainable human activities, population growth, and climate pressures. These threats accelerate environmental degradation and undermine the livelihoods of communities that depend on the delta's natural resources. Key threats include:

THREAT	DESCRIPTION AND EVIDENCE
Deforestation and Degradation of Mangroves	Rufiji Delta hosts over 45% of Tanzania's mangroves, but between 1990 and 2020, the area saw a loss of over 6,500 hectares, mainly due to illegal harvesting for firewood, poles, and charcoal. Satellite imagery from Wetlands International (2021) shows ongoing degradation hotspots near Mohoro, Nyamisati, and Mbwera villages. This destruction not only reduces carbon storage capacity (estimated at 1,000–1,200 tCO_2e/ha stored) but also weakens coastal protection and fish nursery habitats.

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Agricultural Encroachment	Expansion of rice farming—often into mangrove areas and floodplains—is one of the most visible land-use changes. In some villages, up to 60% of households depend on rice farming, and pressure for new plots has led to clearing of ecologically sensitive areas. In 2020, field assessments documented encroachment into protected mangrove zones in Mtunda and Mgomba. Additionally, poor water management has led to salinization of soils and reduced yields.
Overfishing and Resource Exploitation	The delta supports critical fish breeding grounds, yet overfishing is a growing issue. Reports from BMUs (Beach Management Units) indicate declines in fish catches of 30–50% over the past decade, particularly for species like prawns and milkfish. Illegal gear (e.g., beach seines) and destructive practices like mangrove-root fishing are commonly reported in estuarine areas near Salale and Nyamisati.
Climate Change	The Rufiji Delta is highly vulnerable to sea-level rise and saltwater intrusion. A 2021 vulnerability assessment by the Rufiji Water Basin Office projected a sea level rise of 0.3–0.6 meters by 2050, potentially inundating low-lying rice fields and displacing coastal villages. Seasonal rainfall variability is also disrupting planting cycles, while prolonged dry spells increase the risk of wildfire and reduced water availability.
Population Pressure and Settlement Expansion	The population in the delta has grown significantly, with Kibiti and Rufiji Districts now home to over 400,000 people (NBS, 2022). Rapid expansion of settlements—especially near transport corridors and riverbanks—has led to informal land clearing and the conversion of wetlands into farmland and residential areas. In some wards, land use planning is absent or outdated.
Wildfires and Poor Land Management	Fire is widely used for land preparation, but in many cases, it spreads into adjacent natural vegetation. In 2022 alone, local authorities recorded over 80 wildfire incidents, some affecting forest reserves and regenerating mangrove zones. Lack of fire control training and coordinated response mechanisms worsens the impact.
Weak Governance and Lack of Enforcement	While regulations exist, enforcement capacity remains low. Forest patrols are under-resourced, and coordination between local, district, and national authorities is often weak. Village Environmental Committees report repeated illegal logging incidents, particularly during the dry season, with little follow-up due to lack of transport or legal support.

Conclusion

The RDLS acknowledges that the Rufiji Delta's rich ecological services—carbon sequestration, biodiversity support, and coastal protection—are under real and escalating threat. Past efforts have struggled to address these pressures due to fragmented interventions and weak institutional response. By grounding actions in data, engaging local communities, and strengthening governance and enforcement, the strategy aims to halt degradation and transition the delta toward long-term resilience and sustainability.

1.3.History of Interventions in the Rufiji Delta Landscape

Numerous conservation and development initiatives have focused on balancing ecological conservation with socio-economic needs in the Rufiji Delta Landscape (RDL). These interventions began when agricultural expansion in the 1980s, particularly rice farming, led to habitat degradation and deforestation in the landscape. However, early efforts to manage natural resources sustainably were also initiated during this time.

Key Conservation and Development Interventions

Rufiji Environmental Management Project (REMP): Implemented in the late 1990s and early 2000s, REMP aimed to promote sustainable management of the Rufiji River Basin. It focused on conserving mangrove forests, sustainable agriculture, and improving water management. The project also introduced alternative livelihood activities, including eco-friendly practices such as agroforestry, to reduce pressure on natural resources.

Mangrove Management Projects

These initiatives, supported by international donors, aimed at protecting and restoring the delta's critical mangrove ecosystems. Reforestation efforts, sustainable harvesting practices, and community education were key components of these projects, which also sought to strengthen local governance and improve enforcement against illegal logging and overfishing.

Government Policies and Support

The Tanzanian government has supported these conservation efforts through policies such as the Forest Act of 2002 and the National Mangrove Management Plan, which provide legal frameworks for managing ecosystems like the Rufiji Delta. These policies emphasise sustainable resource use and biodiversity protection, ensuring that conservation initiatives align with national environmental goals.

Conclusion

The history of interventions in the Rufiji Delta—ranging from REMP to more recent efforts like MCA and S2S—reflects a genuine commitment to balancing environmental protection with community development.

However, these initiatives have often been project-based, short-term, and sector-specific, leading to fragmented impacts that have not matched the scale or complexity of the challenges facing the landscape. Key gaps have included weak integration of local livelihoods, limited cross-sector coordination, and a lack of long-term governance structures to sustain results beyond project lifecycles.

The Rufiji Delta Landscape Strategy (RDLS) 2025–2050 is not simply a continuation of these efforts—it is a strategic reset. It introduces a coordinated, long-term landscape vision that brings together key actors under a shared framework backed by strong governance mechanisms, inclusive planning processes, and adaptive management. Unlike previous programmes, RDLS prioritises landscape-scale integration, links terrestrial and marine systems, embeds community-led decision-making, and provides a structured roadmap with defined roles, milestones, and monitoring systems. It shifts the focus from isolated interventions to system-wide transformation, positioning the Rufiji Delta as a model of resilience, regeneration, and inclusive growth over the next 25 years.

1.4. .Stakeholders Analysis

A stakeholder is any individual, group, or organisation that has an interest in or influence over a specific issue, such as the management and conservation of theRDL. These stakeholders can positively or negatively impact the landscape's development, particularly regarding natural resource management and socio-economic development.

In the Rufiji Delta Landscape, a comprehensive stakeholder analysis was conducted through desk reviews, stakeholder consultations, and visioning workshops. This analysis identified the key stakeholders involved in the conservation and sustainable management of the landscape, as well as their roles, interests, and levels of influence. Most stakeholders have a high interest and medium to high impact on the delta management. Table 1.1 presents key stakeholders in the RDL and their roles, interests and influence

S/NO	CATEGORY/LEVEL	ROLE IN THE RDL	ITEREST	INFLUENCE
	GOVERNMENT			
1	Sectoral Ministry of Natural resources and Tourism (MNRT), Land and Human settlements (MLHS), Agriculture (MoA) and Water (MoW) President's Office -Regional Administration and Local Government (PO-RALG)	Sectoral Ministry of Natural resources and Tourism (MNRT), Land and Human settlements (MLHS), Agriculture (MoA) and Water (MoW) President's Office -Regional Administration and Local Government (PO-RALG)	High	High
	President's Office -Regional Administration and Local Government (PO-RALG)	Provide policy guidance, direction and interpretation, and law enforcement	High	High
	Regional Administrative Secretary (RAS) – Pwani	Technical support, provide policy guidance, direction and interpretation, and law enforcement. Monitor and evaluate the implementation of the Strategy	High	High
	Local Government Authority – KDC	Technical support, provide policy guidance, direction and interpretation, and law enforcement. Monitor and evaluate the implementation of the Strategy through Rufiji Core Working Group	High	High
	Rufiji Water Basin Authority	Sustainable management and utilization of water	High	Medium
		Sustainable management and utilization of water	High	Medium
	TFS	Sustainable management and conservation of forests and allied natural resources, improvement of community livelihoods	High	High
	NGOS AND CBOS			
2	TFCG	Supports to strengthen community capacity to improve their livelihoods, to secure rights to land and natural resources and to sustainably manage them	High	High
	MJUMITA	Strengthens community capacity to manage and conserve forests, especially on good governance and gender equality	High	High

2	WWF	Supports conservation, management, and ensuring sustainable utilization of the resources for the benefit of present and future generation	High	High
	IUCN	Supports management and conservation of forests and allied natural resources and improves community livelihoods	High	High
	Wetlands International	Wetlands International Support the management of the Delta	High	High
	LOCAL COMMUNITIES			
3	Village Leaders including the Village Natural Resource Committee (VNRC) and Village Land Use Management Committee (VLUMC) Beach Management Unit (BMU)	Ensures compliance with the laws and policies	High	High
	Villagers	Main actors in the implementation of the strategy, involved directly in the management, conservation and utilisation of delta and allied resources	Medium	High
	PRIVATE SECTOR			
4	Salt Producers	Salt production	Medium	Medium
	RESEARCH AND ACADEMIC INSTITUTION			
5	TAFORI	Research to inform the management and conservation of forests and allied natural resources	High	Medium
	TAFIRI	Research to inform the management and conservation of fisheries	High	Medium

5	UDSM	Research to inform the management and conservation of mangrove forests and allied natural resources and Teaching/Field practical site	High	Medium
DEVELOPMENT PARTNERS				
6	USAID	Financing projects/initiatives	High	Medium
	European Union	Financing projects/initiatives	High	Medium
	World Bank	Financing projects/initiatives	High	Medium
	IUCN	Financing projects/initiatives	High	Medium
	Dutch Government	Financing projects/initiatives	High	Medium
MEDIA				
7	Radio, TV, Magazine	Awareness raising about the strategy	High	High

Note: Low= L; Medium = M and High = H

1.5 Legal Frameworks Context for the Rufiji Delta Landscape (RDL)

The RDLS is guided by several national and international legal frameworks that set the foundation for its successful implementation. Collaborating with cross-sectoral policies and adhering to these legal frameworks is essential to meet the strategy's goals.

1.5.1 Linkage with National and International Planning Frameworks

Tanzania Development Vision 2025

This vision emphasizes environmental protection as a key to achieving socio-economic development, recognizing the balance between conservation and human well-being. RDLS aligns with this vision to ensure sustainable development and environmental health in the Rufiji Delta.

National Five-Year Development Plan (2021/22–2025/26):

The plan integrates environmental protection and resource management, stressing the importance of conserving natural resources, including forests and water, which are critical for the livelihoods of communities in the Rufiji Delta.

Sustainable Development Goals (SDGs)

The RDLS contributes to several SDGs, such as SDG 13 (climate action), SDG 15 (life on land), and SDG 6 (clean water and sanitation), focusing on sustainable resource management, biodiversity conservation, and climate resilience in the Rufiji Delta landscape.

Paris Agreement (2015):

RDLS aligns with global climate action goals by addressing carbon sequestration through the protection of mangroves and wetlands and implementing climate adaptation strategies.

CITES (Convention on International Trade in Endangered Species, adopted in 1973):

RDLS complies with CITES regulations and contributes to the protection of endangered species and their habitats.

Convention on Biological Diversity (1992):

The strategy supports the conservation of biodiversity by preserving critical habitats and ecosystems in the Rufiji Delta.

IUCN Red List (1964):

The RDLS actively conserves habitats for species identified as threatened or endangered on the IUCN Red List.

1.5.2 Linkage with National Policies, strategies and plans

National Forest Policy (1998) and Forest Act (2002):

These emphasize Participatory Forest Management (PFM) through Community-Based Forest Management (CBFM) and Joint Forest Management (JFM) to promote forest conservation and utilization.

National Forest Policy Implementation Strategy (2021–2031)

This strategy guides sustainable forest management, ecosystem stability, forest-based industries, and job creation. It insists on managing forests according to approved management plans.

National Community-Based Forest Management (CBFM) Action Plan (2021–2031)

This plan focuses on enhancing forest ecosystems, increasing forest product supply, and supporting sustainable forest-based livelihoods.

Land Use Planning Act (2007)

This act promotes land use planning to protect forests and water sources, ensuring a balance between conservation and local needs.

National Land Policy (1995, Revised 2016), Land Act (1999), and Village Land Act (1999)

Establish frameworks for equitable land distribution, secure tenure, and participatory land-use planning, recognizing village, reserved, and general land categories.

National Climate Change Response Strategy (2021–2026)

Highlights resilience-building for climate-affected communities through sustainable practices like agroforestry and adaptation measures.

Environmental Management Act (2004)

Provides a framework for environmental governance, including environmental impact assessments, pollution control, and climate adaptation.

National Environmental Policy (1997, Revised 2021)

Promotes ecosystem conservation to improve livelihoods and ensure environmental sustainability.

National Climate Change Strategy (2012)

Guides efforts in climate adaptation and mitigation.

The Wildlife Policy of Tanzania (1998, Revised 2007) and the Wildlife Conservation Act (2009)

Promote the sustainable conservation of wildlife resources, including the establishment of Wildlife Management Areas (WMAs).

National Elephant Management Plan (2020–2030)

Focuses on reducing human-elephant conflicts, protecting elephant habitats, and combating poaching.

National Strategy to Combat Wildlife Crime (2014–2019)

Targets illegal wildlife trade and poaching.

National Biodiversity Strategy and Action Plan (NBSAP II, 2015–2020):

Enhances biodiversity conservation, sustainable use, and equitable benefit-sharing.

National Fisheries Policy (1997, Revised 2015) and Fisheries Act (2003)

Advocate sustainable fisheries for socio-economic development and food security.

Marine Fisheries Management and Conservation Strategy (2021–2025):

Promotes sustainable utilization and conservation of marine resources.

National Strategy for the Blue Economy (2020):

Focuses on the sustainable use of ocean and coastal resources, including fisheries.

Conclusion

The RDLS will closely align with national and international legal frameworks, ensuring that the strategy adheres to policies promoting sustainable development, climate resilience, and biodiversity conservation in the delta. These frameworks will guide the implementation of conservation activities and help foster collaboration among stakeholders.

2.0.STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND CHALLENGES (SWOC) ANALYSIS

The Strengths, Weaknesses, Opportunities, and Challenges (SWOC) analysis identifies the internal and external factors influencing the implementation of the RDLS. This analysis was developed through a thorough review of reports, desk research, and stakeholder consultations, which included interviews and group discussions. It was further refined during a validation workshop with key stakeholders. The SWOC analysis was crucial in shaping strategies for effectively implementing the RDL. Clearly understanding the strengths, weaknesses, opportunities, and challenges associated with the strategy provides a comprehensive framework to address the key factors affecting conservation and development efforts in the Rufiji Delta Landcape. Flow Chart 2.1 outlines the SWOC.

2.1 STRENGTH, WEAKNESS, OPPORTUNITIES AND CHALLENGES (SWOC) ANALYSIS

STRENGTHS:

- Long Conservation History: The Rufiji Delta landcape has a long-standing history of conservation efforts, which provides a strong foundation for continued action in preserving biodiversity and ecosystems.
- High Biodiversity: The lands is home to rich biodiversity, with significant endemism in both flora and fauna, making it a critical area for conservation.
- Mosaic Landscape: The coexistence of people, farmlands, wildlife, wetlands and mangrove forests in the Rufiji Delta allows for integrated land-use planning that supports both livelihoods and conservation.
- Local Bylaws: The presence of local regulations around sustainable management of mangrove forests, agriculture, water, and land provides a structured approach to managing natural resources.
- Qualified Technical Staff: The availability of well-trained technical staff in areas such as forestry, agriculture, wildlife and wetlands enhances the capacity to manage the delta.
- Established Land Use Plans: The existence of Village Land Use Plans (VLUPs), Village Land Forest Reserves (VLFRs), and their management committees help in organizing land and resource management at the local level.
- Community Willingness: There is a strong willingness among the community to accept and participate in conservation initiatives, which is crucial for successful implementation.
- Political Will: Support at the local political level (district, ward, and village) bolsters conservation efforts.
- Eco-Tourism Potential: The Rufiji Delta has potential areas for investment in eco-tourism due to its rich natural and cultural assets.
- Agroforestry Systems: Existing agroforestry practices help in maintaining a balance between farming and conservation.
- Favorable Climate: The landscapes's climatic conditions are conducive to growing both crops (such as rice) and trees (indigenous and exotic species).
- Forest Cover: The mangrove forest cover in the delta offers valuable ecosystem services like water regulation and carbon sequestration.

WEAKNESSES:

- Lack of Consolidated Research: Research findings are often fragmented and not adequately communicated to policymakers or the local communities, limiting their practical use.
- Inadequate Infrastructure: Poor infrastructure (e.g., roads) hampers access and logistical support for conservation and development activities.
- Land Scarcity: There is increasing competition over land between agriculture and conservation, which poses a challenge to sustainable resource management.

- Funding Shortages: Conservation efforts are underfunded, leaving them highly dependent on external donors.
- Weak Law Enforcement: Although bylaws exist, their enforcement is weak, reducing their effectiveness in managing natural resources.
- Community Engagement: Some community members are not fully committed to conservation efforts due to limited participation in the planning process and dissatisfaction with benefit-sharing mechanisms.
- Knowledge Gaps: Lack of awareness among some villagers about the Rufiji Delta's boundaries, components, and ecological value weakens community support for conservation.
- Unsustainable Agricultural Practices: Persistent unsustainable farming practices, coupled with a lack of viable alternatives, pose a threat to the ecosystem.
- Limited Eco-Tourism Infrastructure: The landscape lacks the infrastructure to fully capitalize on its eco-tourism potential.
- Invasive Species: Alien species are transforming native ecosystems and disrupting the balance between indigenous flora and fauna.
- Weak Agricultural Cooperatives: The lack of strong cooperatives reduces the community's capacity to engage in collective bargaining and improve agricultural productivity.
- Benefit Sharing: Inequitable sharing of conservation benefits leads to dissatisfaction within the community, undermining support for conservation initiatives.

OPPORTUNITIES:

- Agriculture and Livelihoods: The landscape's conducive climate presents opportunities for agriculture that supports both conservation and local livelihoods.
- Policy Support: There are existing national policies and legal frameworks that support sustainable land and resource management, offering a regulatory backbone for conservation efforts.
- Government Commitment: Strong government support for conservation at both local and national levels provides a solid foundation for long-term sustainability.
- Stakeholder Cooperation: Various stakeholders, including NGOs, CBOs, private sector actors, and research institutions, are willing to collaborate on conservation and development efforts.
- Donor Support: The development partner and donor community are willing to provide financial resources and technical assistance to help sustain conservation efforts.
- Ecosystem Service Payments: There is potential for payment for ecosystem services, such as biodiversity credits, which can provide a sustainable income source for local communities.
- Market Opportunities: There is potential for expanding both local and international markets for agricultural products, particularly rice, which are already cultivated in the landscape

CHALLENGES/THREATS

- Underdeveloped Value Chains: Value chains for food crops, and eco-tourism are underdeveloped, limiting the economic potential of these sectors.
- Limited Access to Loans: Farmers face challenges in accessing affordable loans, which often forces them to rely on middlemen and alternative, less sustainable sources of income.
- Market Instability: The rice market is unstable, which affects the livelihoods of farmers and hinders the development of a robust agricultural sector.
- Budget Constraints: Local governments allocate insufficient budgets for natural resource management and conservation, limiting the capacity to implement necessary interventions.
- Climate Change: Climate change poses a significant threat to the landscape, with increased rainfall variability, prolonged droughts, floods and extreme weather events affecting both conservation and agriculture.
- Population Pressure: Rising population levels increase pressure on land and natural resources, complicating efforts to balance conservation with development.
- Conflicting Policies: Conflicting policies between agriculture and forest conservation hinder cohesive and effective management strategies.
- Human-Wildlife Conflict: Increased wildlife-related damage to crops exacerbates tensions between conservation efforts and local livelihoods.
- Pests and Diseases: Pests and diseases affecting food crops reduce yields, negatively impacting local farmers' incomes.
- Processing Infrastructure: Lack of adequate facilities for drying and processing rice reduces product quality, making it difficult for farmers to compete in high-value markets.

3.0.JUSTIFICATION AND APPROACH

3.1.Justification

In collaboration with the Kibiti District Council and the Rufiji Water Basin, Wetlands International Tanzania is spearheading conservation efforts in the Rufiji Delta Landscape. Wetlands International Tanzania, a leading non-governmental organization, is committed to protecting and restoring wetlands and critical ecosystems that provide essential ecological services. With the unique biodiversity and socio-ecological significance of the Rufiji Delta Landscape, this collaboration is crucial to sustain both local livelihoods and environmental health.

The Rufiji Delta Landscape is an important ecological landscape with rich biodiversity, including mangrove forests, wetlands, and estuaries vital for local communities and wildlife. However, these ecosystems face deforestation, unsustainable agriculture, and climate change impacts. With financial support from DOB Ecology and SIDA as well as technical support from various partners, Wetlands International Tanzania is developing a comprehensive strategy to improve the management of the Rufiji Delta Landscape and enhance stakeholder capacity in conserving biodiversity and sustainably managing natural resources.

A key component of this initiative is forming a Rufiji Delta Landscape Core Working Group (RDLCWG). The RDLCWG will include representatives from the Kibiti and Rufiji District Councils, the Rufiji Water Basin Authority, local community leaders, conservation groups, private sector stakeholders, and research institutions. This group will coordinate conservation efforts, strongly focusing on preserving the landscape's ecological integrity while supporting local communities.

Given the landscape's complex socio-ecological dynamics, there is a pressing need for clear guidelines and a long-term strategy to ensure sustainable management of the Rufiji Delta Landscape over the next two decades. This necessity drives the development of the Rufiji Delta Landscape Strategy (2025-2050). The strategy aims to enhance the capacity of local communities, especially women, youth, artisanal fishers, farmers, pastoralists, and other marginalized groups, to engage in sustainable livelihoods and restore critical ecological connectivity in the landscape. It also seeks to reinforce collaborative efforts across stakeholders, ensuring a unified approach to conservation that benefits biodiversity, local economies, and cultural heritage.

The Rufiji Delta Landscape Strategy builds upon ongoing initiatives and existing interventions, adding value by addressing common challenges that unite stakeholders. The strategy will focus on core issues such as ecosystem protection, resource management, sustainable agriculture, and climate adaptation.

3.2..Approach

The development of the Rufiji Delta Landscape Strategy followed a consultative and participatory approach, using the Four Returns framework—focusing on Inspiration, Social, Natural, and Financial Capital—to ensure the strategy aligns with the needs and aspirations of all stakeholders. This holistic approach implemented through a series of consultative and visioning workshops, aimed to generate long-term benefits for the landscape and its people by addressing these four vital areas.

Return of Inspiration

Workshops sought to inspire and engage the community by highlighting the long-term vision of a restored Rufiji Delta Landscape, where ecosystems and livelihoods flourish.

Stakeholders, including local communities, district officials, NGOs, and private sector representatives, were encouraged to envision a future where sustainable management of natural resources is achieved through collective action. The workshops emphasized how protecting the Landscape's biodiversity and addressing climate change could transform the landscape into an ecological resilience and prosperity model.

Return of Social Capital

The process prioritized building stronger social connections and fostering collaboration among diverse groups, including local leaders (Ward Councillors), district authorities, conservation organizations, CBOs, and research institutions. These workshops empowered community members from villages such as Rufiji, Mbunju, Kikale, and Mchinga, including men, women, youth, and Village Land Use Management (VLUM) and Village Natural Resource Committees (VNRC). Social capital was strengthened by addressing shared values, local governance, stakeholder commitment, gender roles, and the inclusion of underrepresented groups. By enhancing these relationships, the strategy aims to create a foundation for long-term cooperation and collective ownership of the Rufiji Delta's future.

Return of Natural Capital

Protecting and restoring natural ecosystems was a core theme throughout the workshops. The Rufiji Delta, with its unique wetlands, mangroves, and estuarine ecosystems, is a critical source of biodiversity and ecological services The discussions explored strategies for conservation, sustainable land use, and climate adaptation, focusing on restoring degraded areas and enhancing the Delta's capacity to support both biodiversity and local livelihoods. Protecting and restoring natural ecosystems was a core theme throughout the workshops. The Rufiji Delta, with its unique wetlands, mangroves, and estuarine ecosystems, is a critical source of biodiversity and ecological services The discussions explored strategies for conservation, sustainable land use, and climate adaptation, focusing on restoring degraded areas and enhancing the Delta's capacity to support both biodiversity and local livelihoods. The emphasis on natural capital also highlighted the importance of resilient ecosystems in supporting sustainable agriculture and fisheries, both crucial for local food security.

Return of Financial Capital

The workshops identified opportunities to boost financial capital through sustainable economic activities, such as eco-tourism, sustainable agriculture, and payment for ecosystem services (PES). Stakeholders explored the need for resource mobilization and financial mechanisms to sustain conservation efforts, such as securing investments from donors, NGOs, and private sector actors. Additionally, the strategy addressed challenges related to accessing affordable financial resources for local communities, encouraging the development of viable economic alternatives that support conservation.

In addition to these workshops, a comprehensive desk review was conducted to synthesize literature relevant to managing wetlands and delta ecosystems. This included books, journal articles, technical reports, and project documents from previous conservation efforts in the Rufiji Delta Landscape.

To validate the draft strategy further, a two-day consultative workshop was held in Kibiti Town in October 2024. This workshop gathered 40 participants, including representatives from key villages (Mfisini, Mchungu, Nyamisati, and Mchinga), local government officials, NGOs (Wetlands International Tanzania, IUCN), CBOs,

government institutions (TFS), and private sector stakeholders. The objective was to gather final feedback and ensure the strategy aligned with the needs and priorities of all involved stakeholders before finalizing it for implementation.

The Rufiji Delta Landscape Strategy is designed to generate long-lasting benefits for the environment and the communities that depend on it. The strategy ensures that biodiversity is protected, social cohesion is strengthened, and financial opportunities are created, all while fostering resilience to climate change. This inclusive, community-driven approach will lay the foundation for the Rufiji Delta's prosperous and sustainable future.

4.0.THE PLAN FOR 2025-2050

The Rufiji Delta Landscape Strategy (RDLS) 2025–2050 is a comprehensive long-term framework designed to ensure the sustainable management, restoration, and conservation of the Rufiji Delta landscape, one of Tanzania's most ecologically and socio-economically significant regions. Renowned for its diverse ecosystems, including vast mangrove forests, seagrass meadows, intertidal mudflats, freshwater floodplains, natural forests, and abundant wildlife, the Rufiji Delta landscape is a critical hub of ecosystem services. It supports thousands of livelihoods through fishing, agriculture, aquaculture, and forestry while serving as a key carbon sink and natural buffer against climate change impacts. The Rufiji Delta landscape is home to rich biodiversity, including numerous species of fish, birds, and terrestrial wildlife. The area provides critical habitats for migratory birds, endangered species, and key wildlife corridors linking protected areas. Additionally, the freshwater floodplains and natural forests contribute to water regulation, soil fertility, and food security for surrounding communities. Despite its importance, the Rufiji Delta landscape faces pressing challenges, including habitat destruction, resource overexploitation, pollution, sedimentation, invasive species, climate change, and land tenure conflicts. The strategy emphasizes integrating sustainable practices, community participation, and resilience-building measures to safeguard the Rufiji Delta landscape's ecosystems and the livelihoods they sustain

This strategy developed collaboratively through a participatory process, builds on the foundation of previous initiatives such as the Rufiji Environmental Management Project (REMP). The strategy integrates insights from stakeholder consultations, reports, and the 4R framework—Return of Inspiration, Social Capital, Natural Capital, and Financial Capital—into its vision, mission, and strategic objectives. These components will guide efforts to balance conservation with socio-economic development in the region.

4.1.Vision

The vision for the Rufiji Delta Landscape is:

"Rufiji Landscape is sustainably managed for ecosystem services and community resilience."

4.2.Mission

The mission of the Rufiji Delta Landscape is:

"To manage the Rufiji Delta Landscape collaboratively through inclusive and sustainable practices that balance environmental conservation with socio-economic development."

4.3.Objectives

4.3.1 General objective

To enhance the ecological, social, and economic benefits of the Rufiji Delta Landscape for present and future generations by promoting sustainable development, conservation, and climate resilience.

4.3.2 Specific objectives (strategic objectives)

The RDLS outlines six strategic objectives refined through consultations and analysis to guide actions from 2025 to 2050. These objectives are:

1. Enhanced water access and quality: Ensuring sustainable management of water resources to support ecosystem health and community needs.
2. Secured land tenure and equitable resource access: Addressing land tenure issues to reduce conflicts and ensure fair access to natural resources.
3. Sustainable livelihoods and socio-economic well-being: Promoting alternative, sustainable livelihood options to reduce pressure on natural resources and improve economic conditions.
4. Conserved biodiversity and protected ecosystems: Safeguarding the unique biodiversity of the Rufiji Delta, including its extensive mangrove forests.
5. Strengthened governance and institutional capacity: Enhancing local governance and building institutional capacity for better resource management.
6. Adaptation to and mitigation of climate change impacts: Increasing the resilience of ecosystems and communities to the effects of climate change, such as sea-level rise and extreme weather events.

4.4.Strategies and Targets

This strategy proposes strategic interventions and targets to address the strategic objectives.

Strategic Objective 1: Enhanced water access and quality

Context

Sustainable water resource management is crucial to maintaining the health of the delta's ecosystems and supporting community livelihoods.

Strategies

- Implement community-based water management plans for sustainable water use.
- Promote water conservation practices among local communities.
- Upgrade community water systems and promote rainwater harvesting.
- Implement water-efficient irrigation technologies.
- Improve water flow and quality through desiltation.

Targets

- Improve water quality and access for 80% of communities by 2035.
- Establish 10 sustainable water management practices by 2030.

Strategic Objective 2: Secured land tenure and equitable resource access

Context

Land tenure conflicts threaten both community livelihoods and conservation efforts. Resolving these issues is key to equitable resource access. One of the key objectives of the National CBFM Action Plan of 2022 is to enhance the stability of forest ecosystems by conserving forest biodiversity, water catchments, and soil fertility (URT, 2022b). Additionally, the National Forest Implementation Strategy of 2021 emphasizes the involvement of local communities in forest restoration and management. (URT, 2021a). The Land Use Planning Act of 2007 acknowledges land allocation for various uses, including water sources, and establishes buffer zones to safeguard water catchment areas, rivers, dams, and riverbanks (URT, 2007).

Strategies

- Develop and enforce village land use plans that ensure fair distribution of land and resources.
- Collaborate with local authorities to formalize land rights and reduce conflicts.

Targets

- Develop and enforce comprehensive Village Land Use Plans by 2030.
- Formalise land tenure (CCROs) for 75% of households by 2030.

- Reduce land conflicts in the delta by 50% by 2035.

Strategic Objective 3: Sustainable livelihoods and socio-economic well-being

Context

The socio-economic well-being of the communities in the Rufiji Delta is closely tied to the health of its ecosystems. Promoting sustainable livelihoods will alleviate pressure on natural resources.

Strategies

- Promote alternative income-generating activities, such as eco-tourism, sustainable agriculture, and beekeeping.
- Promote sustainable farming (e.g. climate-smart agriculture) and fishing practices to increase productivity while conserving the environment.
- Enhance infrastructure and market linkages.
- Provide affordable credit for business development.

Targets

- Increase alternative livelihoods by 40% by 2035.
- Train 80% of farmers on sustainable agricultural and fishing practices by 2030.

Strategic Objective 4: Conserved biodiversity and protected ecosystems

Context

The Rufiji Delta Landscape's extensive mangrove forests are crucial for biodiversity, carbon sequestration, and coastal protection, yet they face deforestation and habitat degradation.

Strategies

- Protect and restore mangrove forests and other critical habitats.
- Develop and implement biodiversity conservation programs involving local communities.
- Implement measures to protect and sustainably utilize natural resources.
- Halt illegal activities in protected areas
- Develop sustainable tourism initiatives

Targets

- Reduce mangrove deforestation by 60% by 2035.
- Conserve 90% of critical biodiversity areas by 2045.
- Establish 10 community-led conservation initiatives by 2030.
- Ensure the Rufiji Delta is a thriving, resilient ecosystem by 2050.

Strategic Objective 5: Strengthened governance and institutional capacity

Context

Weak governance structures have hindered conservation efforts in the past. Building stronger institutions and improving coordination are essential for successfully managing the delta.

Strategies

- Establish and formalise a core group to oversee the RDL strategy implementation.
- Strengthen governance structures and stakeholder collaboration through the Rufiji Delta Core Working Group (RDCWG).
- Build capacity among local institutions to effectively manage resources and enforce conservation policies.

Targets

- Establish one multi-stakeholder platform by 2026 for improved governance.
- Train 80% of local institutions in resource management by 2030.

Strategic Objective 6: Adaptation to and mitigation of climate change impacts

Context

Climate change impacts, such as rising sea levels and extreme weather events, pose significant threats to the Rufiji Delta Landscape and its communities. Unpredictable climate impacts could hinder progress (URT, 2021b; URT, 2022b). Climate change poses an increasing threat to the forests and biodiversity of Tanzania (URT, 2022b). There is a growing recognition that urgent mitigation and adaptation actions are necessary (URT, 2021b; URT, 2022b). Policy interventions in Tanzania to address climate change have focused on capacity building on climate change issues, enhancing the resilience of forest biodiversity, and improving governance, operations, and financial management. Training in vulnerability assessment and integrating climate adaptation into land use practices (such as CSA) and policies are key components of this effort (URT, 2021b). The CBFM Action Plan outlines initiatives to adapt to and mitigate climate change effects at the community level and contributes to broadening sinks for greenhouse gases and combating desertification (MNRT, 2022). The role of local communities is to adopt and promote agroforestry and CSA as a means to mitigate and adapt to climate change (MNRT, 2022).

Strategies

- Develop climate adaptation strategies for local communities and ecosystems.
- Promote reforestation and mangrove restoration as key mitigation actions.
- Enhance community resilience to climate impacts.
- Establish local and modern climate change alert systems (early warning systems) in the Delta.

Targets

- Implement two early warning systems for climate-related events by 2030.
- Restore 50% of degraded mangrove forests by 2035.
- ·Five programmes for raising community awareness of climate change issues developed and implemented by June 2034;
- ·At least 80% of farmers are trained and practicing CSA by June 2034;
- ·All village natural resource committees are trained on CSF by June 2028;
- ·At least 80% of villagers are trained on CSF by June 2034; and
- ·At least 2 climate change alert systems are in place by June 2028.

Strategic Objective 7: Improved community livelihood outcomes through a sustainable agricultural value chain in the RDL

Context

The National Agriculture Policy of 2013 revolves around developing an efficient, competitive, and profitable agricultural industry that contributes to improving livelihoods. The government is committed to bringing about a green revolution that entails the transformation of agriculture from subsistence farming towards commercialization and modernization through crop intensification, diversification, technological advancement, and infrastructural development (URT, 2013).

The policy recognises the role of improving the value chain for the livelihoods of farmers. Further, the policy emphasises the importance of using information and communication technologies (ICTs) to improve efficiency in agricultural value chains.

Strategies

- Establish a value chain for crops in the RDL;
- Identify and adopt appropriate technologies for agricultural production in the RDL;
- Establish and train farmers on appropriate technologies for harvesting, storage, processing, and packaging in the RDL;
- Develop and coordinate the crop market information system in the RDL;
- Establish price, market/sales centres and improve road infrastructure in the RDL;
- Establish new and strengthen existing farmers associations in the RDL; and
- Identify and register crop producers, processors, and sellers in the RDL.

Targets

- At least 80% of the crops value chain established by 2035;
- At least 80% of farmers are aware of the value chains by 2035;
- Average production of crops increased by 80% by 2035;
- Efficiency use of land for crop farming increased by 80% by 2035;
- All appropriate technologies for harvesting, storage, processing and packaging are identified and documented by June 2030;
- At least 80% of farmers are trained on appropriate technologies for harvesting, storage, processing, and packaging by 2035;
- At least one application to link producers and buyers created by 2030
- One market information web portal created and linked with other relevant websites by 2030;
- Price and 4 market centres established by 2035;
- At least 80% of the road network improved by 2035;
- One farmer association established, covering all villages by June 2030;
- One existing farmer association strengthened by June 2030; and
- At least 80% of crop producers, processors and sellers registered in all villages by June 2035.

4.5.A Logframe for Implementation Strategy

Appendix 1 presents a log frame for implementing the strategy. It defines objectives, strategies, indicators, means of verification, and responsible institutions. The log frame is a vital strategy component that facilitates monitoring and evaluation.

5.0. SUSTAINABILITY PLAN AND PERCEIVED RISKS FOR RDLS

5.1 Sustainability Plan

The sustainability of the Rufiji Delta Landscape (RDL) management over the next 25 years relies on addressing local community needs, fostering stakeholder collaboration, and integrating socio-economic and environmental strategies. The following key elements outline the sustainability framework of the RDLS:

5.1.1 Prioritization of Local Community Needs and Aspirations

Sustainable conservation in the Rufiji Delta Landscape cannot be achieved without addressing the needs and aspirations of local communities who rely heavily on the landscape's natural resources. Agriculture, fishing, and forestry form the backbone of livelihoods in the delta, making it essential to balance conservation efforts with livelihood enhancement. The RDLS will support the development of sustainable agricultural value chains, improve market access for local products, and enhance transportation infrastructure to enable community development while promoting conservation. By integrating community-led initiatives, such as sustainable fisheries and eco-tourism, the strategy ensures long-term engagement and support for conservation activities.

5.1.2 Gender Equality and Strong Community Engagement

A sustainable conservation and resource management strategy must include all community groups, including women, youth, elders, and marginalized populations. The RDLS promotes gender equality and inclusivity by involving diverse community members in decision-making. This participatory approach has fostered a strong sense of ownership and "conservation will" within the community, encouraging long-term commitment to environmental stewardship. Through continuous education and awareness-raising initiatives, local leaders and community members have become key advocates for sustainable management in the Rufiji Delta.

5.1.3 Motivated Stakeholders and Coordinated Efforts

The active involvement of stakeholders, including local communities, government authorities, NGOs, and the private sector, is crucial for the sustainability of the RDLS. The Rufiji Delta Lanscape Core Working Group (RDLCWG), with its clear vision, mission, and strategic objectives, will ensure continued engagement and participation from all stakeholders. The strategy emphasizes participatory monitoring and evaluation, which enhances stakeholder capacity, builds ownership and increases motivation. By actively involving stakeholders in monitoring, evaluation, and decision-making processes, the strategy ensures that sustainability remains a central focus throughout implementation.

5.1.4 Engagement of Local Government Authorities (LGAs)

Local Government Authorities (LGAs) in the Rufiji Delta have the necessary infrastructure, policy frameworks, and workforce to support sustainable conservation. However, conservation is not always prioritized at the district level. The RDLS aims to integrate conservation as a core objective within the LGAs' agendas, ensuring that the sustainable management of the Rufiji Delta receives adequate attention, resources, and support. By building strong partnerships with LGAs, the strategy enhances the capacity of local governments to lead long-term conservation efforts.

5.1.5 Inclusion of the Private Sector

The private sector is critical in advancing conservation initiatives, mainly through investment in eco-tourism, sustainable agriculture, and carbon offset projects in the Rufiji Delta. The strategy highlights the potential for economic transformation through eco-tourism, rice production, and sustainable resource management. However, the RDLS also acknowledges the need to mitigate the unintended negative impacts of these initiatives, such as biodiversity loss and socio-economic inequalities. Well-planned, inclusive interventions will ensure that private sector engagement supports both conservation goals and community development.

5.1.6 Co-Development of Impact-Oriented and Accessible Research

The Rufiji Delta has a rich history of conservation efforts and research, yet much of the knowledge and data remain underutilized. The RDLS emphasizes the need to co-develop research initiatives that are practical, impact-oriented, and accessible to all stakeholders. By creating platforms for knowledge-sharing among researchers, communities, and policymakers, the strategy will foster the development of innovative and inclusive landscape management solutions. Longitudinal studies on biodiversity, ecosystem services, and socio-economic factors will inform adaptive management practices and ensure the sustainability of conservation initiatives in the Rufiji Delta.

5.1.7 Alignment with Cross-Sectoral Policies

The success of the RDLS depends on alignment with national and international policies on environmental conservation, climate change, and sustainable development. The strategy will collaborate closely with cross-sectoral policies and legal frameworks to ensure compliance and coherence with broader development goals. Collaboration with relevant sectors, such as agriculture, fisheries, water management, and tourism, will further strengthen the strategy's impact.

5.2 Risk Analysis and Assumptions

The implementation of the RDLS is subject to several risks, which could hinder achieving its goals. These risks, identified through stakeholder consultations and qualitative analysis, are outlined below, along with their potential impacts and likelihood of occurrence:

S/N	Risk	Impact	Likelihood
1	Change in stakeholders willingness to cooperate and participate (-ve)	medium	medium
2	Climate change and variability (e.g., rising sea levels, extreme weather events)	High	High
3	Changes in economic conditions (economic crises) negatively affect the flow of funds)	medium	medium
4	Change in political will and supportive policies (-ve)	High	Low

S/N	Risk	Impact	Likelihood
5	Conflict between farmers versus conservationists over land and land use due to land scarcity	Medium	Low
6	Conflict between farmers versus the Pastorists/and other private companies/investors	Medium	Medium
7	High rate of technological advancement, leading to more sophisticated conservation technologies	Medium	Medium
8	Increased invasive species (e.g. tree species)	High	Medium
9	Increase in numbers of people impacted by / reporting damage due to increase in wild animals	High	High

In addition to these risks, the successful implementation of the strategy depends on several key assumptions:

Effective Coordination and Cooperation

Various stakeholders, including government agencies, NGOs, CBOs, private sector actors, and local communities, must cooperate and effectively implement the strategy.

Adaptability to Climate Change

The strategy must remain flexible to adapt to unforeseen impacts beyond droughts, such as flooding or severe storms, which could affect ecosystems and livelihoods.

Market Stability

The stability of local and global markets is essential for maintaining economic support for livelihood and conservation programs within the strategy.

Political Stability and Policy Continuity

The strategy assumes that political stability will be maintained, with no significant national or local conflicts affecting its implementation. Furthermore, continuity in supportive policies and regulations is critical for the strategy's long-term success.

Environmental Health

The strategy assumes no major environmental disasters, such as pest outbreaks or widespread disease affecting key species within the Rufiji Delta.

Access to Technological Resources

The availability of necessary technological resources and innovations will be essential for effectively monitoring and implementing the RDLS.

Social Stability

The strategy relies on maintaining social cohesion within the communities involved and minimizing potential conflicts related to land use, resource access, and conservation initiatives.

Integrating these sustainability measures and risk mitigation strategies is crucial to ensuring that the Rufiji Delta Landscape remains resilient and prosperous, balancing conservation goals with the socio-economic needs of the local communities.

6.0. SUSTAINABLE FINANCING AND RESOURCE MOBILISATION PLAN FOR RDLS

6.1 Sustainability Plan

Successfully implementing the Rufiji Delta Landscape Strategy (RDLS) requires sustainable and diversified funding mechanisms over the next 25 years. This will involve a strategic approach to mobilize resources from both internal and external sources to address funding gaps, especially given limited government budget allocations. The following strategies are essential to achieving sustainable financing for the RDLS:

6.1.1 Multi-Source Funding

The RDLS will leverage multiple funding sources, including government allocations, international grants from development partners, private sector investments, and community contributions. Diversifying the funding base will reduce reliance on any single source and increase financial resilience. Key international funding bodies, such as the Green Climate Fund (GCF), Global Environmental Facility (GEF), and bilateral donors, will actively support conservation and development efforts in the Rufiji Delta Landscape

6.1.2 Long-Term Financial Planning

A long-term financial plan will be developed to ensure the sustainability of RDLS funding. This plan will outline annual financial requirements, potential funding sources, and financial management strategies to ensure that resources are allocated efficiently over the 25 years. Financial audits and transparent reporting mechanisms will be integral to maintaining accountability and encouraging donor confidence.

6.1.3 Public-Private Partnerships

Establishing partnerships with private sector entities, including businesses in eco-tourism, agriculture, fisheries, and carbon credits, will be critical for attracting investments to support conservation and sustainable resource management. PPPs can play a key role in funding infrastructure development, eco-tourism ventures, and sustainable fisheries, which will enhance the economic viability of the Rufiji Delta while protecting its ecosystems.

6.2 Resource Mobilisation

Resource mobilization is securing new and additional resources while using existing resources best. The RDLS will involve mobilizing material, human, and financial resources to support the long-term conservation goals, socio-economic development, and climate resilience in the Rufiji Delta Landscape. The following key strategies are proposed:

6.2.1 Rufiji District Council Budget Allocations

Government support through the Rufiji District Council remains a crucial financial source for implementing the strategy. The RDLS will aim to integrate conservation activities into the district's development plans, ensuring that land and natural resource management efforts receive adequate budgetary support. Sectoral integration will be a key focus, and various departments will contribute to conservation through their budgets. Regular financial audits will ensure that allocated funds are used transparently and efficiently.

6.2.2 Developing Proposals to Secure Funds from International Partners

Global funds from international development partners can significantly contribute to implementing the RDLS. The strategy will prioritise the development of high-quality funding proposals for organisations such as the GEF, GCF, USAID, and UNDP, which have historically supported conservation and climate resilience projects. Moreover, the RDLS will strengthen international collaboration to access innovative funding opportunities, such as biodiversity credits (bio-credits), which can finance biodiversity conservation through market-based incentives.

6.2.3 Developing Proposals to Secure Funds from Internal Funding Organizations

To secure additional resources for the RDLS, internal funding sources such as the Tanzania Forest Fund (TaFF) and the CRDB Green Bonds initiative will be explored. These organizations support development and research projects in Tanzania and have demonstrated a commitment to forest conservation, biodiversity protection, and climate resilience. Building strong partnerships with these entities will enable the RDLS to access financial support while enhancing local stakeholders' proposal development and project management capacity.

6.2.4 Establishing Payment for Ecosystem Services Schemes

The RDLS will establish Payment for Ecosystem Services (PES) schemes, such as Equitable Payment for Water Services (EPWS), to create a sustainable revenue stream for conservation efforts. In this model, beneficiaries of ecosystem services (e.g., water companies and TANESCO) compensate communities and other stakeholders for maintaining ecosystem services. For instance, beneficiaries such as water utility companies could contribute financially to conservation initiatives that protect water catchment areas within the delta. This system will require strong stakeholder engagement and transparent mechanisms for collecting and distributing funds to ensure equitable benefit-sharing.

6.2.5 Community Contributions from Village Land Forest Reserves

Local communities in the Rufiji Delta Landscape can contribute to funding RDLS activities by managing village land forest reserves (VLFRs). Revenue generated from fines for violations of village bylaws, ecotourism, sustainable forest harvesting, biocredits, and research collaborations can be reinvested in conservation activities. Additionally, communities will be encouraged to channel a portion of the income from VLFRs back into forest management and landscape restoration projects to ensure the long-term sustainability of natural resource management.

6.3 Innovative Financing Mechanisms

The RDLS will explore innovative financing mechanisms, such as green bonds and credits, which are becoming increasingly popular as tools to finance environmental conservation projects. Green bonds, issued by governments or financial institutions, provide a secure investment option for those looking to support sustainable development projects while receiving financial returns.

6.4 Capacity Building for Resource Mobilisation

The RDLS will explore innovative financing mechanisms, such as green bonds and credits, which are becoming increasingly popular as tools to finance environmental conservation projects. Green bonds, issued by governments or financial institutions, provide a secure investment option for those looking to support sustainable development projects while receiving financial returns.

6.5 Collaboration with National and International Conservation Networks

By strengthening its relationship with national and international conservation networks, the RDLS will have access to additional resources, technical expertise, and funding opportunities. Partnerships with organisations such as the International Union for Conservation of Nature (IUCN), the World Wildlife Fund (WWF), and the African Development Bank (AfDB) will open doors for joint initiatives and co-funding opportunities.

6.6 Transparency and Accountability

A crucial component of the RDLS financing plan is ensuring transparency and accountability when using funds. This will be achieved through regular financial reporting, independent audits, and participatory governance structures that give communities a say in how funds are allocated and used. Transparent financial management will build trust among donors, partners, and local communities, increasing the likelihood of continued financial support for conservation activities in the Rufiji Delta Landscape.

Conclusion

This sustainable financing and resource mobilization plan provides a robust framework for securing and managing the necessary resources to implement the Rufiji Delta Landscape Strategy successfully. By diversifying funding sources, building local capacity, and fostering partnerships with the private sector and international donors, the strategy ensures that the Rufiji Delta Landscapes' ecosystems can be protected while supporting the socioeconomic development of local communities for the long term.

7.0.MONITORING, EVALUATING AND COMMUNICATING THE RUFIJI DELTA LANDSCAPE STRATEGY

7.1 Monitoring and Reporting

The monitoring process will adopt a participatory approach to ensure transparency and accountability and foster local ownership of the Rufiji Delta Landscape Strategy (RDLS) (Holte-McKenzie et al., 2016; Mgoba and Kabote, 2020; Kibukho, 2021). All strategic objectives will be monitored annually, with progress tracked based on clearly defined indicators. The Rufiji Delta Landscape Core Working Group (RDLCWG) will lead the monitoring process with various stakeholders, including local communities, district authorities, and conservation organizations.

Participatory Monitoring Approach

Engaging local community members in monitoring activities builds their capacity and enhances the accuracy and relevance of data collection. By actively involving communities, the monitoring process gains valuable insights into the day-to-day realities of resource management in the delta. This participatory model strengthens the sense of ownership among local stakeholders and increases their commitment to the strategy's success.

Technological Tools

The RDLS will be supported by a robust monitoring and evaluation framework designed to ensure accountability, learning, and adaptive management over its 25-year lifespan.

T Rather than prescribing specific tools—which are likely to evolve—the strategy focuses on tracking a core set of Key Performance Indicators (KPIs) aligned with its vision and objectives. These include the extent of restored and protected mangrove and wetland ecosystems, improvements in sustainable land use practices, diversification and stability of local livelihoods, levels of community participation in governance, trends in biodiversity and ecosystem service health, and carbon sequestration and climate resilience metrics. Data collection will be guided by principles of transparency, inclusivity, and continuous learning, with the flexibility to adopt emerging technologies and innovations as they become available.

Capacity Building

Continuous training of local stakeholders on monitoring tools and processes is essential for effective implementation. The strategy will focus on building local expertise in data collection, management, and analysis to ensure comprehensive monitoring of conservation and livelihood activities in the Rufiji Delta.

Feedback Mechanisms

Establishing robust feedback mechanisms is critical to addressing challenges as they arise and incorporating lessons learned into ongoing activities. This iterative approach ensures that corrective actions can be taken promptly and that monitoring data informs adaptive landscape management.

7.2 Evaluation

The RDLS will be evaluated using a participatory framework. This framework will ensure that all stakeholders, including local communities, NGOs, government bodies, and private sector partners, actively assess the strategy's progress and impact.

Evaluation Phases:

- Mid-Term Review (2029): Halfway through the implementation period, the strategy will undergo a mid-term evaluation to assess progress and identify any necessary adjustments. This review will evaluate its effectiveness, efficiency, sustainability, outcomes, and impacts up to that point.
- Final Evaluation (2050): At the end of the strategy's 25-year implementation period, a comprehensive final evaluation will assess the RDLS's overall success and long-term impacts and provide recommendations for future conservation and development initiatives.
- Periodic Reviews: In addition to the mid-term and final evaluations, periodic reviews will be conducted every two years to assess ongoing progress. These reviews will proactively identify immediate challenges and recommend course corrections to ensure the strategy remains on track.

Evaluation Methods

The evaluation process will employ qualitative and quantitative methods to comprehensively capture the strategy's performance. This mixed-methods approach will provide insights into measurable outcomes, such as biodiversity restoration and socio-economic improvements, and more nuanced impacts, such as community perceptions of conservation.

Building Local Capacity

Building Local Capacity: Training programs will be implemented to equip local stakeholders with the necessary evaluation skills to enhance the credibility and sustainability of the evaluation process. This will empower local communities and organizations to actively participate in and contribute to evaluating RDLS outcomes.

7.3 Communication

Effective communication is critical to maintaining stakeholder engagement, ensuring transparency, and promoting the achievements of the RDLS. The following communication strategies will be implemented to disseminate monitoring and evaluation results:

7.3.1 Communication Strategy

A comprehensive communication strategy will be developed to ensure consistent and transparent communication with all stakeholders. This will include:

Regular Updates

Publish periodic progress updates on the RDLS through newsletters, reports, and press releases. These updates will be shared with all stakeholders, including government agencies, NGOs, development partners, private sector actors, and local communities.

Stakeholder Workshops

Organize regular workshops and seminars to present and discuss progress, challenges, and successes with stakeholders. These interactive sessions will provide an opportunity for feedback and collaboration, ensuring that the strategy remains inclusive and responsive to stakeholder needs.

7.3.2 Digital Platforms

The strategy will leverage digital platforms to maximize outreach and engagement. This includes:

Social Media

Utilise platforms such as Facebook, Twitter, and Instagram to share key milestones, highlight community success stories, and engage with a broader audience.

Website

A dedicated website will serve as the central hub for all information related to the RDLS. It will provide access to reports, maps, data visualizations, and updates on strategy implementation.

Email Newsletters

Stakeholders will receive regular email newsletters providing updates on the strategy's progress, upcoming events, and important announcements.

7.3.3 Transparency and Accessibility

To ensure that all stakeholders can access and understand the strategy's progress and outcomes, the RDLS will prioritize the following:

Accessible Reporting

All communication materials, including reports and updates, will be available in multiple languages and formats to accommodate diverse audiences, including those with disabilities.

Open Access to Information

Monitoring and evaluation reports will be shared widely through public forums, digital platforms, and local events, ensuring all stakeholders can access the information they need to stay informed and engaged.

By fostering a transparent, participatory, and inclusive communication strategy, the RDLS will ensure that stakeholders remain actively involved in implementing and achieving the strategy's success while building trust and accountability across all levels of engagement.

8.0 Budget and Funding Plan

Achieving the RDLS objectives will require a realistic and well-structured budget. Below is a detailed budget breakdown for the significant strategic activities, including estimated costs and potential funding sources, Table 1.

The budget is designed for an initial 10-year implementation phase (2025–2035), which can be scaled up or adjusted for the entire 25-year horizon. Costs have been estimated based on required resources (community training, infrastructure, personnel, materials) and informed by similar projects in Tanzania. All costs are in US Dollars. Potential funding sources are identified for each activity, reflecting a mix of local, national, and international support to ensure financial sustainability.

ACTIVITY / PROGRAM	ESTIMATED COST (USD)	POTENTIAL FUNDING SOURCES
Community Water Management & Infrastructure - e.g. establish water user committees, build/rehab wells and rainwater harvesting, and introduce efficient irrigation for farms. Targets: 80% communities with improved water access by 2035.	1600000	Local Government (Kibiti/Rufiji District budgets, Ministry of Water); Bilateral Donors (e.g. USAID WASH programs, JICA); Multilateral (World Bank water projects).
Land Use Planning & Tenure Security - facilitate village land use plans, demarcate community conservation areas, and resolve resource conflicts through local bylaws and titling.	1150000	Government (Ministry of Lands, Tanzania Forest Services); NGOs (land rights advocacy groups); UN Agencies (UNDP for land governance).
Sustainable Livelihoods Development - support alternative livelihoods like beekeeping, eco-tourism, sustainable aquaculture, and climate-smart agriculture (training, starter inputs, forming cooperatives, marketing assistance).	1500000	Bilateral Donors (e.g. SIDA, EU community development funds); Development NGOs (Wetlands International, WWF, CARE); Private Sector CSR (e.g. tourism companies, agribusiness investing in community projects).
Ecosystem Conservation & Restoration - implement mangrove reforestation campaigns, nursery establishment, patrols against illegal logging/fishing, and community-led conservation of key habitats. Includes equipment (boats, seedlings) and incentives for community rangers. Target: at least 1,000 ha of mangroves restored by 2030.	2200000	Environmental Donors (GEF for biodiversity, Green Climate Fund for nature-based climate mitigation); Government (Tanzania Forest Fund - TaFF); International NGOs (WWF, IUCN); Carbon Finance (corporate partners via carbon offset programs).

ACTIVITY / PROGRAM	ESTIMATED COST (USD)	POTENTIAL FUNDING SOURCES
Governance & Capacity Building - train local committees (BMUs, VNRCs) and district officials, support the RDLC Working Group operations, and equip community structures for resource management (office supplies, mobility).	1, 200,000	Local Government (District Council allocations
Capacity Building Grants (e.g. World Bank or USAID governance programs); NGOs (Wetlands International core support, IUCN).		
Climate Adaptation Initiatives - introduce early warning systems, community disaster response training, and pilot projects for climate-resilient infrastructure (e.g. elevated storage facilities, salt-tolerant demonstration plots).	1300000	Climate Funds (Green Climate Fund, Adaptation Fund via UN Environment); Bilateral (e.g. UK/FCDO or Germany for climate adaptation); Private Sector (insurance or industries funding resilience as corporate social responsibility).
Monitoring, Evaluation & Outreach - continuous M&E activities (surveys, data collection, mid-term/end-term evaluations) and communication of results (community meetings, policy briefs, media). Includes staffing M&E officers and producing reports.	1250000	All Donor Programs (integrated as % of each project funding); Wetlands International (oversight and technical M&E support); Academic partners (providing in-kind support for research).

Total Estimated Budget (2025–2035): $10.15 million (approximately) – This budget is an aggregate for the first decade of implementation. It will be refined as on-ground planning progresses, ensuring each activity is costed in detail. Notably, the budget is designed to be scalable: if more funding becomes available, activities can be expanded (e.g. restoring additional mangrove hectares or reaching more villages with livelihood grants), and if funding is limited, the plan can prioritise the most critical interventions first.

Total Estimated Budget (2025–2035): $10.15 million (approximately)

This budget is an aggregate for the first decade of implementation. It will be refined as on-ground planning progresses, ensuring each activity is costed in detail. Notably, the budget is designed to be scalable: if more funding becomes available, activities can be expanded (e.g. restoring additional mangrove hectares or reaching more villages with livelihood grants), and if funding is limited, the plan can prioritise the most critical interventions first. The costs also factor in inflation and contingency for unforeseen expenses (about 10% reserved). A multi-source funding approach is envisioned, where the government, donors, and the private sector contribute to different components. For example, local government budgets will cover recurrent costs like staff and some infrastructure maintenance, while international grants may fund capital-intensive projects like restoration and climate adaptation infrastructure. Diversifying funding in this way will reduce over-reliance on any single source and improve the financial resilience of the strategy.

Potential Funding Sources

The RDLS financing strategy targets a range of donors: the Government of Tanzania (through district council allocations and national environment funds) is expected to integrate RDLS activities into its annual budgets; international environment/climate funds (such as the Global Environment Facility and Green Climate Fund) will be approached with project proposals to support conservation and climate adaptation efforts; bilateral partners like USAID, SIDA, JICA, GIZ, and others with interest in biodiversity or climate programs in Tanzania are potential major contributors; and NGOs and philanthropic organisations (e.g. DOB Ecology, which has supported mangrove work, or other foundations) can fund specific components.

Private sector investment will also be sought – for instance, companies can invest in community projects as part of corporate social responsibility, or carbon credit buyers might fund mangrove planting in exchange for carbon offsets. The strategy's mix of activities (livelihoods, restoration, water, etc.) aligns with multiple donor priorities, increasing the chances of securing funds. A dedicated effort to prepare high-quality funding proposals (under the resource mobilisation plan) is included in the strategy, ensuring that the Rufiji Delta initiatives attract the needed financial support.

Conclusion

The revised Rufiji Delta Landscape Strategy 2025–2050 presented here offers a more transparent structure, refined content, and a concrete budgeting plan to guide implementation. By articulating a strong vision, specific objectives, and practical interventions backed by a realistic budget, the strategy provides a roadmap for conserving one of Tanzania's natural treasures while fostering sustainable development for local communities. With coordinated action and adequate funding, the Rufiji Delta can thrive as a model of integrated landscape management – where wetlands and people coexist harmoniously, resilient to future challenges. Continued commitment from all stakeholders and adaptive management will be key to turning this strategy into on-the-ground success, ensuring that the Rufiji Delta remains a vibrant and productive landscape for future generations.

Appendix 1: Implementation Strategy (Action Plan)

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
1.	Enhanced water access and quality	Implement community-based water management plans for sustainable water use.	Improve water quality and access for 80% of communities by 2035	• Percentage of communities with • improved water access and quality.	• Quarterly and annual water quality reports; Community survey • results	• Kibiti District Council • Village Water Committees • Ministry of water
			Establish 10 sustainable water management practices by 2030	• Number of sustainable water management practices implemented	• Reports on water management practices; • Field assessments and project reports •	• Wetlands International • CSOs & CBOS • Development Partners •
		Promote water conservation practices among local communities.	Conduct 20 water conservation awareness campaigns by 2030.	• Number of awareness campaigns conducted • Community participation rates.	• Campaign reports; • Attendance records and feedback from community members.	• LGAs NGOs; • Community Leaders • Basic

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
			Train 500 community members in water conservation by 2030.	• Number of community members trained.	• Training attendance records; • Post-training evaluations.	• NGOs • LGAs • Community Water Management Groups
		Improve water flow and quality through desiltation.	Complete desiltation in 5 major waterways by 2030.	• Number of waterways desilted; • Improvement in water flow and quality.	• Desiltation progress reports • Water quality assessments	• Ministry of Water • Environmental Management Councils • Local Communities
			Reduce sedimentation levels in waterways by 30% by 2035.	• Sedimentation levels in key waterways.	• Annual water quality and sedimentation reports • Field assessments. •	• Government • Wetlands International • Ministry of Environment
2.	Secured land tenure and equitable resource access	Develop and enforce village land use plans that ensure fair distribution of land and resources.	Develop and enforce comprehensive Village Land Use Plans by 2030.	• Number of villages with approved land use plans • Percentage of land area covered by Village Land Use Plans.	• Approved Village Land Use Plans • Field inspection reports.	• Local Government Authorities (LGAs) • Ministry of Lands

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
			Conduct 20 land rights awareness campaigns across villages by 2030	• Number of awareness campaigns conducted • Community participation rate in land rights events	• Campaign reports • Community attendance records	• NGOs • LGAs • Community-Based Organizations (CBOs)
		Develop training programs on land rights and dispute resolution for village leaders and community members.	Train 500 village leaders and community members on land rights and dispute resolution by 2030.	• Number of trainings conducted • Number of leaders and community members trained • Improvement in land dispute resolution skills	• Training attendance sheets • Post-training evaluations	• NGOs • Ministry of Lands • Community Land Use Committees
		Establish buffer zones around key water sources and forest areas as per the Land Use Planning Act of 2007.	Establish buffer zones around 80% of key water sources and forest areas by 2030.	• Percentage of water sources and forests with buffer zones established • Compliance with buffer zone regulations.	• Village Land Use Plans • Field verification reports	• LGAs • Ministry of Environment • Community Water Committees
		Regularly update and monitor land use plans to ensure alignment with conservation goals.	Review and update Village Land Use Plans every 5 years.	• Number of plans reviewed and updated • Changes in land use compliance	• Updated Village Land Use Plans; • Monitoring reports.	• Local Government Authorities (LGAs) • Ministry of Lands • FBD • CBOs

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
3.	Sustainable livelihoods and socio-economic well-being	Promote alternative income-generating activities, such as eco-tourism, sustainable agriculture, and beekeeping.	Increase alternative livelihoods by 40% by 2035.	• Percentage in households engaged in alternative livelihoods	• Household surveys • Income assessments.	• Local Government Authorities (LGAs) • NGOs • Ministry of Natural Resources and Tourism
			Establish 10 eco-tourism sites by 2035.	• Number of eco-tourism sites established and operational.	• Eco-tourism development reports • Site inspections	• Ministry of Tourism • Community-Based Organizations (CBOs) • Private sector partners
		Promote sustainable farming (e.g., climate-smart agriculture) and fishing practices to increase productivity while conserving the environment.	Train 80% of farmers on sustainable agricultural and fishing practices by 2030.	• Percentage of farmers trained in sustainable practices • Adoption rate of climate-smart practices.	• Training attendance records; • Post-training evaluations; • Field surveys.	• Ministry of Agriculture • LGAs • Agricultural Extension Services
			Increase fishery productivity by 30% by 2035 through sustainable practices.	• Percentage in fish yield per unit area • Rate of compliance with sustainable fishing practices.	• Fisheries monitoring reports; • Fishery production records.	• Ministry of Livestock and Fisheries • Fisheries Cooperatives • NGOs

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
		Enhance infrastructure and market linkages.	Establish or improve market access roads for 80% of communities by 2035.	• Percentage of communities with improved access to market infrastructure.	• Infrastructure development reports • Field inspections.	• LGAs • Ministry of Works, Transport, and Communication • Local contractors
			Increase access to markets for 70% of producers by 2030	• Percentage of producers with improved market access • Number of market linkages established.	• Market linkage reports • Producer surveys	• Ministry of Trade • LGAs • Private sector partners
		Provide affordable credit for business development.	Ensure access to affordable credit for 50% of small enterprises by 2030.	• Percentage of enterprises with access to affordable credit • Number of credit facilities established.	• Financial institution reports • Small business surveys.	• Microfinance Institutions • Ministry of Finance • LGAs
			Increase small business revenue by 30% through credit support by 2035.	• Percentage increase in small business revenue • Number of businesses accessing credit	• Credit institution records • Small business revenue assessments.	• Microfinance Institutions • NGOs supporting enterprise development • Ministry of Trade

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
4.	Conserved biodiversity and protected ecosystems	Protect and restore mangrove forests and other critical habitats.	Reduce mangrove deforestation by 60% by 2035.	• Percentage decrease in mangrove deforestation • Area (hectares) of mangrove forests restored.	• Remote sensing and satellite imagery • Field inspection reports	• Tanzania Forest Services Agency (TFS) • Ministry of Environment • Local Government Authorities (LGAs)
			Conserve 90% of critical biodiversity areas by 2045.	• Percentage of critical biodiversity areas under conservation • Rate of habitat degradation in protected areas.	• Protected area management reports • Biodiversity assessments	• TFS • NGOs • Ministry of Natural Resources and Tourism
			Conserve 90% of critical biodiversity areas by 2045.	• Percentage of critical biodiversity areas under conservation • Rate of habitat degradation in protected areas.	• Protected area management reports • Biodiversity assessments	• TFS • NGOs • Ministry of Natural Resources and Tourism
		Develop and implement biodiversity conservation programs involving local communities.	Establish 10 community-led conservation initiatives by 2030.	• Number of community-led conservation initiatives established • Community participation rate in conservation activities.	• Community engagement reports • Conservation initiative records.	• NGOs • Community-Based Organizations (CBOs) • LGAs

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
			Train 80% of community members on conservation practices by 2030.	• Percentage of community members trained in conservation practices. • Number of conservation training sessions conducted	• Training attendance records • Post-training evaluations	• NGOs • LGAs • TFS
		Implement measures to protect and sustainably utilise natural resources.	Implement sustainable resource use plans in 100% of critical habitats by 2040	• Percentage of critical habitats with sustainable resource use plans • Compliance rate with resource use plans.	• Resource management plans • Annual compliance reports	• TFS • Ministry of Natural Resources and Tourism • LGAs
		Halt illegal activities in protected areas.	Reduce illegal activities (poaching, logging) in protected areas by 80% by 2035.	• Number of illegal activity incidents reported • Rate of law enforcement in protected areas.	• Law enforcement records • Field reports.	• LGAs • TFS • Local law enforcement agencies
		Develop sustainable tourism initiatives.	Develop and promote 5 eco-tourism sites by 2030.	• Number of eco-tourism sites developed and operational • Increase in eco-tourism revenue.	• Tourism development reports • Revenue records.	• Ministry of Tourism • Private sector partners • LGAs

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
			Increase community engagement in eco-tourism activities by 50% by 2035.	• Percentage of local community members involved in eco-tourism • Community income from eco-tourism activities.	• Eco-tourism program records • Income surveys	• NGOs • Ministry of Tourism • Community-Based Organizations (CBOs)
		Ensure the Rufiji Delta is a thriving, resilient ecosystem by 2050.	Achieve a resilient and healthy ecosystem as measured by biodiversity, habitat health, and ecosystem services by 2050.	• Ecosystem health index • Biodiversity and habitat health scores.	• Environmental assessments • Annual ecosystem monitoring reports	• TFS • Ministry of Environment • Research Institutions
5.	Strengthened governance and institutional capacity	Establish and formalise a core group to oversee RDL strategy implementation.	Establish one multi-stakeholder platform by 2025 for improved governance.	• Existence of a formalised multi-stakeholder governance platform • Number of stakeholder meetings conducted.	• Platform formation documentation • Meeting minutes and attendance records.	• Local Government Authorities (LGAs) • Ministry of Environment • Wetlands International
			Increase stakeholder participation in decision-making processes by 60% by 2030.	• Percentage increase in stakeholder participation • Number of stakeholder consultations held annually.	Meeting attendance records Stakeholder engagement reports.	• LGAs • NGOs; Rufiji Delta Core Working Group (RDCWG)

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
		Strengthen governance structures and stakeholder collaboration through the Rufiji Delta Core Working Group (RDCWG).	Hold quarterly RDCWG meetings to improve coordination and communication by 2025.	• Number of RDCWG meetings held per year • Level of collaboration among stakeholders.	• RDCWG meeting records • Quarterly collaboration reports.	• RDCWG; • LGAs • Community-Based Organizations (CBOs)
			Develop and implement a governance framework for resource management by 2026.	• Existence of an approved governance framework • Compliance with framework by key stakeholders.	• Governance framework document • Compliance reports.	• RDCWG • Ministry of Natural Resources and Tourism • NGOs • Rufiji Water Basin Authority.
		Build capacity among local institutions to effectively manage resources and enforce conservation policies.	Train 80% of local institutions in resource management by 2030.	• Percentage of local institutions trained • Improvement in resource management capacity.	• Training attendance records • Post-training assessments and evaluations.	• Ministry of Environment • NGOs • LGAs
			Establish conservation policy enforcement protocols across 100% of villages by 2032.	• Percentage of villages with active enforcement protocols • Rate of policy compliance.	• Enforcement protocol documentation • Field inspection reports.	• LGAs • Local law enforcement • RDCWG

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
		Develop a monitoring and evaluation (M&E) system for governance practices.	Develop and launch an M&E system for tracking governance progress by 2026.	• Presence of an operational M&E system • Frequency and quality of M&E reports.	• RDCWG meeting records • Quarterly collaboration reports.	• RDCWG • LGAs • Research Institutions
			Conduct bi-annual reviews of governance effectiveness and resource management by 2030	• Number of governance reviews conducted • Improvement in governance scores over time.	• Governance review reports • Stakeholder feedback surveys	• Ministry of Environment • NGOs • Research Institutions •
6.	Adaptation to and mitigation of climate change impacts.	Develop climate adaptation strategies for local communities and ecosystems.	Implement two early warning systems for climate-related events by 2030.	• Number of climate change early warning systems established • Usage rate of early warning systems by communities.	• Early warning system reports • Community feedback surveys	• Tanzania Meteorological Agency (TMA) • Local Government Authorities (LGAs)
			Train 80% of community members on climate adaptation strategies by 2035.	• Percentage of community members trained • Improvement in adaptive capacity measures among community members.	• Training attendance records • Post-training evaluation reports.	• Ministry of Environment • NGOs • CBOs

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
		Promote reforestation and mangrove restoration as key mitigation actions.	Restore 50% of degraded mangrove forests by 2035.	• Percentage of mangrove forests restored • Hectares of degraded mangrove area rehabilitated.	• Mangrove restoration reports • Satellite imagery and field assessments.	• Tanzania Forest Services Agency (TFS) • Wetlands International • LGAs
			Increase forest cover in critical areas by 30% by 2040.	• Percentage increase in forest cover • Number of hectares reforested	• Reforestation progress reports • Remote sensing and GIS data.	• TFS • Ministry of Environment • Community Forest Committees
		Enhance community resilience to climate impacts.	Five programmes for raising community awareness of climate change issues developed and implemented by 2035.	• Number of awareness programs conducted • Percentage of community members aware of climate change impacts and adaptation practices.	• Awareness program reports • Community surveys.	• NGOs • LGAs • Community Leaders
			Train 80% of farmers in climate-smart agriculture (CSA) practices by June 2034.	• Percentage of farmers trained in CSA • Adoption rate of CSA practices.	• Training records • Field surveys and CSA practice assessments	• Ministry of Agriculture • Agricultural Extension Services • NGOs

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
			Train all village natural resource committees in climate-smart forestry (CSF) by June 2028.	• Number of village natural resource committees trained • Percentage of villages practicing CSF.	• Training records • CSF implementation reports.	• TFS • LGAs • CBOs
		Establish local and modern climate change alert systems (early warning systems) in the Delta.	Install at least 2 climate change alert systems by June 2028.	• Number of alert systems operational • Community engagement and response to alerts.	• Early warning system operational reports • Community response assessments.	• TMA • LGAs • NGOs
			Reach 80% of villagers with climate change alert information by 2035.	• Percentage of villagers receiving and using alert information • Reduction in climate-related damages in target areas.	• Alert dissemination records • Community feedback and assessment reports.	• TMA • LGAs • CBOs •

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
7.	Improved community livelihood outcomes through a sustainable agricultural value chain.	Establish value chains for crops in the RDL.	80% of crop value chain established by 2035.	• Percentage of crop value chains established.	• Agricultural value chain reports • Market records.	• Ministry of Agriculture • Local Government Authorities (LGAs) • NGOs
		Identify and adopt appropriate technologies for agricultural production.	Increase crop production by 80% by 2035.	• Percentage increase in crop production • Rate of technology adoption	• Agricultural production reports • Technology adoption assessments.	• Agricultural Extension Services • NGOs
		Train farmers on technologies for harvesting, storage, processing, and packaging.	Train 80% of farmers on these technologies by 2035.	• Percentage of farmers trained • Number of training sessions conducted	• Training attendance records • Field surveys	• Ministry of Agriculture • NGOs • CBOs
		Develop a crop market information system.	Create one application linking producers and buyers by 2030.	• Presence of market information system • Number of users accessing the system.	• Application development reports • User data analytics.	• LGAs • Ministry of Trade • Private sector partners

S/No	Strategic Objectives	Strategies	Targets	Indicators	Means of verification	Responsible institution/actor
		Establish market centers and improve road infrastructure.	Improve market access infrastructure for 80% of communities by 2035	• Percentage of communities with improved infrastructure • Number of market centers established.	• Infrastructure development reports • Market center records.	• Ministry of Works • LGAs • Private sector
		Strengthen and establish farmers' associations.	80% of farmers aware of value chains by 2035.	• Percentage of farmers engaged in associations • Number of associations formed or strengthened.	• Farmers' association records • Member surveys	• Ministry of Agriculture • NGOs • CBO

Appendix 2: List of Workshop Participants/Representatives from each organisation

S/NO	ORGANISATION	NUMBER OF PARTICIPANT(S)
1	Mchinga Village	1
2	Nyamisati Village	5
3	Mfisini Village	1
4	Mchungu Village	1
5	Ward Councillors	2
6	Salt Producer	1
7	Jicho Angavu Foundation	1
8	Cattle keeper	1
9	Regional Administrative Secretary Rep	1
10	Kibiti District Council	11
11	TFS-Kibiti	1
12	TFS-DSM	1
13	Wetlands International Tanzania	4
14	IUCN Iringa	1
15	TFCG	1
16	Rufiji Water Basin	1
17	SAGCOT	2
18	CRDB Ikwiriri Kibiti	1
	Total	**36**

Bibliography

DFID. (2003). Tools for Development: A handbook for those engaged in development activity. Performance and Effectiveness Department, Department for International Development.

FAO. (2013). Case studies on Remuneration of Positive Externalities (RPE)/ Payments for Environmental Services (PES) Prepared for the Multi-stakeholder dialogue 12-13 September 2013 FAO, Rome.

Hall, J.M., Burgess, N.D., Rantala, S.E., Vihemäki, H.M., Jambiya, G., Gereau, R.E., Makonda, F., Njilima, F., Sumbi, P., and Kijazi, A. (2014). Ecological and Social Outcomes of a New Protected Area in Tanzania. Conservation Biology, 28(6): 1512-1521. https://doi.org/10.1111/cobi.12335.

Holte-McKenzie, M., Forde, S., and Theobald, S. (2006). Development of a participatory monitoring and evaluation strategy. Evaluation and Program Planning, 29(4), 365-376. https://doi.org/10.1016/j.evalprogplan.2006.08.007.

Kaganzi, K.R., Mcharazo, F., Martin, E.H., Marchant, R.A., and Thorn, J.P. (2021). Local Perceptions of Climate Change and Adaptation Responses from Two Mountain Regions in Tanzania. Land, 10(10), 999. https://doi.org/10.3390/land10100999.

Kibukho, K. (2021). Mediating role of citizen empowerment in the relationship between participatory monitoring and evaluation and social sustainability. Evaluation and Program Planning, 85, 101911. https://doi.org/10.1016/j.evalprogplan.2021.101911.

Kwayu, E.J., Sallu, S.M., and Paavola, J. (2014). Farmer participation in the equitable payments for watershed services in Morogoro, Tanzania. Ecosystem Services, 7: 1-9. https://doi.org/10.1016/j.ecoser.2013.12.006.

Mansourian, S., Berrahmouni, N., Blaser, J., Dudley, N., Maginnis, S., Mumba, M., and Vallauri, D. (2021). Reflecting on twenty years of forest landscape restoration. Restoration Ecology, 29(7), e13441.

Mansourian, S., Sumbi, P., Bonifas, E., Meshack, C., Malugu, I and Vallauri, D. (2019). Lessons Learnt from 10 Years of Restoration of Coastal and Sub-montane Tropical Forests: The East Usambara Landscape (Tanzania).WWF France.

Marhavilas, P.K., Koulouriotis, D, and Gemeni, V. (2011). Risk analysis and assessment methodologies in the work sites: on a review, classification and comparative study of the scientific literature of the period 2000–2009. Journal Loss Prevention in the Process Industries, 24(5):477–523. https://doi.org/10.1016/j.jlp.2011.03.004.

Njoghomi, E.E., Amanzi, N., Uisso, A.J and Nyarobi, H. (2022). A study to collate and synthesize successful Forest Landscape Restoration (FLR) initiatives in the Water Tower Landscape (WTL), Tanzania. A consultancy report submitted to, the World Wide Fund for Nature -Tanzania Country Office (WWF-TCO), Dar es Salaam, Tanzania.

Porras, I and Steele, P (2020) Making the market work for nature: how biocredits can protect biodiversity and reduce poverty. IIED Issue Paper. IIED, London.

Tang, D.Y. and Zhang, Y. (2020). Do shareholders benefit from green bonds? Journal of Corporate Finance, 61: 101427. https://doi.org/10.1016/j.jcorpfin.2018.12.001.

URT. (1998). National Forest Policy of 1998. United Republic of Tanzania (URT). Dar es Salaam, Tanzania.

URT. (1998b). National Wildlife Policy of 1998. United Republic of Tanzania (URT). Dar es Salaam, Tanzania.

URT. (1999a). The Land Act of 1999. United Republic of Tanzania (URT). Dar es Salaam.

URT. (1999b). The Village Land Act of 1999. United Republic of Tanzania (URT). Dar es Salaam.

URT. (2002). The Forest Act of 2002. United Republic of Tanzania (URT). Dar es Salaam, Tanzania.

URT. (2007). The Land Use Planning Act of 1999. United Republic of Tanzania (URT). Dar es Salaam.

URT. (2013). The National Agricultural Policy of 2013. United Republic of Tanzania (URT). Dodoma.

URT. (2015). National Biodiversity Strategy and Action Plan 2015-2020. Vice Presidents Office. United Republic of Tanzania. Dar es Salaam. Tanzania.

URT. (2016). The National Land Policy of 2016. United Republic of Tanzania (URT). Dodoma.

URT. (2018). Wildlife Conservation Regulations (Wildlife Corridors, Dispersal Areas, Buffer Zones, and Migratory Routes) of 2018. United Republic of Tanzania (URT). Ministry of Natural Resources and Tourism (MNRT). Dodoma.

URT. (2019). Eastern Arc Mountain Forests Overarching Strategic Management Plan United Republic of Tanzania (URT), Ministry of Natural Resources and Tourism (MNRT), Dodoma.

URT. (2021a). National Forest Policy Implementation Strategy (2021 - 2031). United Republic of Tanzania (URT). Ministry of Natural Resources and Tourism (MNRT). Dodoma.

URT. (2021b). National Climate Change Response Strategy (2021-2031). United Republic of Tanzania (URT).Vice Presidents Office (VPO). Dodoma.

URT. (2022). National Environmental Master Plan for Strategic Interventions (2022 – 2032). United Republic of Tanzania (URT), Vice Presidents Office. Dodoma.184.

URT. (2022a). Sensa ya Watu na Makazi ya Mwaka 2022: Ripoti ya Idadi ya Watu katika Majimbo ya Uchaguzi, Tanzania, Desemba 2022.Wizara ya Fedha na Mipango, Ofisi ya Taifa ya Takwimu - Tanzania na Ofisi ya Rais – Fedha na Mipango, Ofisi ya Mtakwimu Mkuu wa Serikali, Zanzibar.

URT. (2022b). The National Community Based Forest Management (CBFM) Action Plan. United Republic of Tanzania (URT). Ministry of Natural Resources and Tourism (MNRT). Dodoma.

USAID. (2021a). USAID Tuhifadhi Maliasili. Corridor-Level Political Economy Analysis Report. USAID/Tanzania Mission, U.S. Agency for International Development, under the terms of Contract No. 72062121C00001.

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