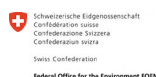




# POLICY AND INSTITUTIONAL REVIEW

## ZANZIBAR, TANZANIA

### 2022





**POLICY AND INSTITUTIONAL REVIEW**  
**ZANZIBAR, TANZANIA**  
2022



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## Abbreviations and Acronyms

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ABS	Access and Benefits Sharing
AF	Adaptation Fund
BER	Biodiversity Expenditure Review
BFP	Biodiversity Finance Plan
BIOFIN	Biodiversity Finance Initiative
BOT	Bank of Tanzania
CBD	Convention on Biological Diversity
CBO	Community Based Organization
CHABAMCA	Changuu Bawe Islands Marine Conservation Area
CHICOP	Chumbe Island Coral Park Sanctuary
CoFMAs	Community Forest Management Areas
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
DAMA	Department of Archives, Museums and Antiquities
DFNRNR	Department of Forestry and Non-Renewable Natural Resources
DMR	Department of Marine Resources
DoA	Department of Agriculture
DoE	Department of Environment
DoFD	Department of Fisheries Development
DoT	Department of Tourism
EIA	Environmental Impact Assessment
FNA	Finance Needs Assessment
FS	Finance Solutions
2VPO	Second Vice President's Office
FYDP	Five Year Development Plan
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environmental Facility
HIMA	Hifadhi ya Mimitu ya Asili ya Jamii (project of Community-based Forest Management)
ICZM	Integrated Coastal Zone Management
IFAD	International Fund for Agricultural Development
IMS	Institute of Marine Sciences
JECA	Jozani Environmental Conservation Association
LDCF	Least Developed Countries Fund
LGAs	Local Government Authority

MAINRL	Ministry of Agriculture, Irrigation, Natural Resources and Livestock
MBCA	Menai Bay Conservation Area
MCA	Marine Conservation Area
MDAs	Ministries, Departments and Agencies
MIMCA	Mnemba Island-Chakwa Bay Conservation Area
MIVARF	Market Infrastructure Value Addition and Rural Finance Programme
MKUZA III	Zanzibar Strategy for Growth and Reduction of Poverty
MLF	Ministry of Livestock and Fisheries
MPAs	Marine Protected Areas
MTSPBM	Medium Term Strategic Planning and Budgeting Manual
NBS	National Bureau of Statistics
NBSAP	National Biodiversity Strategy and Action Plan
NCFM	National Climate Change Financing Mechanism
NGO	Non-Government Organization
O&OD	Opportunities and Obstacle to Development
ODA	Official Development Assistance
OECD DAC	Organization for Economic Cooperation and Development – Development Assistance Committee
PA	Protected Areas
PBG	Planning and Budget Guidelines
PBZ	People’s Bank of Zanzibar
PECCA	Pemba Channel Conservation Area
PIR	Policy and Institutional Review
PISCs	Public Institutions and Statutory Corporations
PO-F&P	President’s Office, Finance and Planning
REDD+	Reduced Emissions from Deforestation and Degradation
RGoZ	Revolutionary Government of Zanzibar
SDGs	Sustainable Development Goals
SUZA	State University of Zanzibar
TANESCO	Tanzania Electric Supply Company Limited
TMA	Tanzania Meteorological Authority
TRA	Tanzania Revenue Authority
TUMCA	Tumbatu Marine Conservation Area
UNDP CO	United Nations Development Programme Country Office
UNESCO	United Nations Educational, Scientific and Cultural Organization
URT	United Republic of Tanzania
VFC	Village Fishing Committee
VPO	Vice President’s Office



WCS	Wildlife Conservation Society
WIOMSA	West Indian Ocean Marine Science Association
WWF	World Wildlife Fund for Nature
ZABSAP	Zanzibar Biodiversity Strategy and Action Plan
ZARI	Zanzibar Agriculture Research Institute
ZATI	Zanzibar Association of Tourism Investors
ZAWA	Zanzibar Water Authority
ZBS	Zanzibar Bureau of Standards
ZCT	Zanzibar Commission for Tourism
ZDV	Zanzibar Development Vision
ZECO	Zanzibar Electricity Corporation
ZEMA	Zanzibar Environmental Management Authority
ZIP	Zanzibar Investment Policy
ZIPA	Zanzibar Investment Promotion Authority
ZBSAP	Biodiversity Strategy and Action Plan
ZNCCIA	Zanzibar National Chamber of Commerce, Industry and Agriculture
ZPC	Zanzibar Planning Commission
ZRB	Zanzibar Revenue Board
ZSGRP III	Zanzibar Strategy for Growth and Reduction of Poverty - MKUZA III

## EXECUTIVE SUMMARY

This Policy and Institutional Review (PIR) for Zanzibar is prepared as part of the Biodiversity Finance Initiative (BIOFIN) launched in 2012 by the United Nations Development Programme (UNDP) as a new global partnership seeking to address the biodiversity finance challenge in a more systematic manner. It is globally acknowledged that protecting biodiversity and ecosystems will significantly enhance country's environmental, socio-economic well-being, as well as contributing towards sustainable development goals, prosperity and human life. The BIOFIN process emanates from worldwide acknowledgement of inadequate macro-economic investments in biodiversity conservation, holding back realization of commitments for both developed and developing countries on the Convention on Biological Diversity's (CBD) Strategic Plan and the Sustainable Development Goals (SDGs). BIOFIN thus aims to enable countries to develop sound strategies and constituent business models to increase local, regional and global investments in protection and restoration of biodiversity and ecosystems.

Tanzania began to engage the BIOFIN program in 2017 with a scoping mission and experts' consultative meetings in Zanzibar in 2018 to create awareness and establish feasible intervention pathways for Zanzibar and mechanism to embrace a variety of finance solutions including options for resource mobilization, better financing delivery and realignment of expenditures.

Zanzibar is endowed with rich but fragile terrestrial and marine environment with unique levels of biodiversity components. The plentiful benefits of this biodiversity components remain vulnerable and at times undervalued, thus not well understood in sector policies, plans and budgets. As such, degradation of critical habitats such as the coastal forests, mangroves, seagrass, sand banks and coral reefs, has increased resulting in decline in the performance levels of the ecosystem services that these habitats provide. The Revolutionary Government of Zanzibar has made various efforts ranging from putting in place policies, legal frameworks, strategies, and setting up institutions mandated to enhance sound management of natural resources and biodiversity

conservation. The use and also implementation of biodiversity interventions involves various stakeholders - both state and non-state actors. In Zanzibar, around 25 sectors, agencies, institutions and organizations with direct and indirect mandates, functions and initiatives related to biodiversity resources conservation and utilization have been identified in this review. In addition, about 15 non-government actors particularly the private sector, NGOs, research and academic institutions have also been identified.

Given this perspective, this PIR which is part of the BIOFIN program in Zanzibar assesses the policy and institutional context for biodiversity management in Zanzibar, analysing the biodiversity related policy framework, strategies, trends and drivers for biodiversity degradation and recommends a set of options to support development of Biodiversity Finance Plan and possible Finance Solutions.

The approach employed in the PIR involved an inception phase which was mainly carried out through virtual meetings including the launch workshop in the advent of COVID-19. The PIR methodology applies an integrated approach and cross linkage to Biodiversity Expenditure Review (BER) and Financial Needs Assessment (FNA) in order to inform development of a Biodiversity Finance Plan and Finance Solutions for Zanzibar in the future.

On completion of BIOFIN Inception Report for Zanzibar and optimization of a feasible pathway to implement the Zanzibar BIOFIN chapter, the national consultants began with the Policy and Institutional Review (PIR) phase as the first pillar. The Desk review and stakeholders' consultations identified Policy and Institutional issues related to local governance and management approaches to biodiversity and ecosystem services and how these services support national development vision and contributions to SDGs. It also reviewed key policies and associated strategies and plans, drivers of biodiversity change, actors and mechanisms for biodiversity finance. The institutional review and analysis report thus summarize the roles and functions of key institutions active in biodiversity management and finance.

Key recommendations from this PIR lay a Biodiversity Expenditure Review (BER) and the Financial Needs Assessment (FNA) that concurrently culminate in the development of a Biodiversity Finance Plan and Finance Solutions for Zanzibar. Overall conclusions and recommendations are grouped into three categories namely Conservation; Access and benefits sharing; and Sustainable use. They all focus on enhancing, improving, amending or modifying existing policies and practices to achieve positive change and prevent negative biodiversity and ecosystem status and trends. Specific recommendations drawn are:

**a. Improving Biodiversity Conservation** that principally would be affected through biodiversity conservation integration in national planning, integration and synchronized policy approaches to undo institutional overlaps and enhance efficient resources mobilization. Development of Biodiversity Conservation Strategy and Action Plan that would take advantage of the newly launched National Development Vision 2050, the Five-Year Development Plan (2020 – 2025) and the Blue Economy and MKUZA IV (under revision) among others, is a timely opportunity. This will also facilitate effective implementation of existing financing mechanism such as the National results-based Planning and Budgeting through allocation to biodiversity financing, National Climate Change Financing Mechanism and the Tourism Fund and development of programs to access external financing from global windows and tracking of biodiversity funds. Zanzibar Blue Economy or the First Vice President's Office (FVPO) to lead Biodiversity valuation to inform decisions on the economic

value of biodiversity products and services to address the limited financing for biodiversity and also improve on implementation and repurposing subsidies, off sets and incentives to promote investments in tourism will be critical to reduce the impacts on coastal and marine biodiversity.

- b. Enhancing participatory biodiversity** resources conservation that would include promoting and supporting a wide range of community livelihoods and environment-friendly income generating initiatives and provisions for co-management approaches for enhanced management of biodiversity hotspots such as forests reserve/parks, nature sanctuaries, forest plantations, Community Forest Management Areas (CoFMAs), Marine Conservation Areas (MCAs). Also, creation of 'buffer zones' to connect and create corridors for protected areas or fragile ecosystems.
- c. Facilitating sustainable use of natural resources** both on land and in the marine environment with specific actions on enhancing public-private sector engagement through strengthening the private sector engagement especially in tourism and energy development that directly or indirectly support or benefit from biodiversity products and services including Corporate social responsibility, Biodiversity offsets to compensate for biodiversity loss arising from private developments. Also promote Payment for Ecosystem Services (PES) as a finance solution for re-investment on biodiversity conservation plans and harnessing opportunities for eco-labelling. Supporting and scaling up pilot REDD+ initiatives as biodiversity finance solution



# 1. INTRODUCTION

## 1.1 Overview of BIOFIN

The United Republic of Tanzania (URT) is a party to the Convention on Biological Diversity (CBD) since 1996 and has made a commitment to protect its biodiversity and ecosystems in acknowledging its immense function in enhancing human life and sustainable development. As such, Tanzania has made various efforts including policy and institutional development and provision of financial resources for biodiversity conservation such as allocation of internal budgets and soliciting support from development partners to finance conservation programs. Like other developing countries, Tanzania is experiencing significant finance gaps in biodiversity management. To precisely outline biodiversity finance needs and gaps based on the National Biodiversity Strategy and Action Plan (2015-2020), and to determine opportunities and related challenges on resource mobilization to implement the plan, a thorough national level BIOFIN Plan was deemed necessary. An expression of interest to implement Biodiversity Finance Initiative – BIOFIN was submitted by Tanzania in February 2018 and subsequently approved as a BIOFIN Phase II core country. Tanzania is thus one of the thirty-nine (39) countries that are currently participating in BIOFIN Phase II for the period of 2018-2025. This time frame and budget allocated to Zanzibar cover the methodology phase and initial implementation of prioritized finance solutions.

Biodiversity Finance Initiative (BIOFIN) was launched in October 2012 as a new global partnership seeking to address the biodiversity finance challenge comprehensively and systematically. BIOFIN is managed by the United Nations Development Programme - Ecosystems and Biodiversity Programme, in partnership with the European Union, the Governments of Germany, Norway, Switzerland and the Flanders. The BIOFIN operates along two main streams, namely: (1) Globally-led development of a methodological framework; and (2) Adaptation and implementation at the country level of the methodological framework<sup>1</sup>.

In Tanzania, the BIOFIN project is confined to only Zanzibar archipelago which is part of the United Republic of Tanzania. Zanzibar has been selected as a pilot area due to the limited funding available to cover large areas in the United Republic of Tanzania. It is anticipated that successful implementation will form a basis for scaling up the BIOFIN process in the entire Mainland Tanzania context.

The Revolutionary Government of Zanzibar (RGoZ) recognizes the immense value of biodiversity in sustaining human life and has made numerous efforts in managing its biodiversity. However, there are significant gaps in financing biodiversity management in Zanzibar as well. Efforts on biodiversity conservation have largely been implemented in silos and under fragmented intervention measures in reaction to sector-oriented policy and financing priorities. Most of the implemented interventions are project based focusing on a few tracts of critical habitats and isolated hotspots; and mainly financed through ODA and donor support. The BIOFIN project is thus piloted in Zanzibar in accordance with the BIOFIN Workbook Methodology (2018) to develop a financial plan for biodiversity conservation and protection as a key tool for effective biodiversity financing in Zanzibar. The BIOFIN Workbook provides guidance on how to assess financial needs and mobilize financial resources required to fully implement Zanzibar's planned biodiversity strategy; and the overall NBSAP's implementation framework for Tanzania, thereby achieving the Aichi Biodiversity Targets at a national level. The Workbook consists of five main components (Box 1):

### Box 1: BIOFIN Components

Part 1: Review of Context: Review of biodiversity-related policies, institutions and expenditures that include Policy and practice drivers of biodiversity and ecosystem change; Institutional review and Public and private expenditure and effectiveness trends.

Part 2: Biodiversity Expenditure Review: that

<sup>1</sup> The Biodiversity Finance Initiative, [http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/projects\\_and\\_initiatives/biodiversity-finance-initiative/](http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/projects_and_initiatives/biodiversity-finance-initiative/)

focuses on calculating the costs of implementing each of the strategies within the revised NBSAP namely the Strategies, actions and costs

Part 3: Financial Needs assessment: The FNA that determines the current levels of biodiversity finance and identify the financing gap by comparing what is currently spent with what is needed

Part 4: Development of a Biodiversity Finance Plan: Developing a resource mobilization plan that includes Potential biodiversity finance actors, opportunities, mechanism and revenue and the Resource mobilization strategy and action plan.

Part 5: Implementation: support the implementation of the prioritized finance solutions identified in the BFP.

The approach involves four critical stages: (a) An analysis and integration of biodiversity and ecosystem services in sectoral and development policy, planning and budgeting systems; (b) Assessment of existing and future financing flows, needs and gaps for managing and conserving biodiversity and ecosystem services; (c) Development of comprehensive national resource mobilization strategies to meet the biodiversity finance gaps and; (d) Initiating implementation of the resource mobilization strategy at national level.

## 1.2 Background Information on the Policy and Institutional Review

The policy and institutional context for biodiversity finance in Zanzibar identifies how biodiversity and ecosystem services support national development priorities; the contribution to SDGs and institutional drivers of biodiversity change including existing biodiversity finance mechanisms. The PIR process reviews national biodiversity strategies, sustainable development strategies, and economic linkages between them. It also analyses trends and drivers for biodiversity change; and establishes institutional functions for key institutions active in biodiversity finance.

## 1.3 The Objectives of the PIR

The intermediate objective of the Policy and Institutional Review (PIR) guided by the BIOFIN

Methodology is to analyse the relationship between the state of nature and a country's fiscal, economic, legal, policy, and institutional framework. The review aims to: (a) provide an understanding of how the management of biodiversity and ecosystem services support national vision and sustainable development goals, (b) provide a comprehension of key policy and institutional drivers of biodiversity change and (c) develop a catalogue of existing biodiversity finance mechanisms, incentives, subsidies and other instruments, including sources of biodiversity revenues. These three approaches identify the national biodiversity vision, strategies and trends to be analysed within the national BIOFIN work. Also, analysis of country's fiscal, economic, legal, policy, and institutional framework will facilitate efforts to initiate, improve and scale up effective biodiversity finance solutions. The PIR also aims to identify actors from both the public and private sector to inform the Biodiversity Expenditure Reviews (BER) and the Finance Needs Assessment (FNA) that will determine the current levels of biodiversity finance and identify finance gaps. The three main components namely PIR, BER and FNA are meant to build the Biodiversity Finance Plan (BFP) that will identify finance solutions for biodiversity management in Zanzibar.

## 1.4 Institutional Arrangements and Contributors to the Report

In order to fulfil the outlined scope, the BIOFIN project implementation is undertaken through various sectors. BIOFIN steps were embedded into existing governing frameworks to guarantee ownership, enable institutionalization and enhance sustainability. The process followed the BIOFIN Methodology guided by a Steering Committee and a Technical Committee that are tasked with the responsibility of overseeing the BIOFIN activities in Zanzibar (Figure 1) to ensure integration in national context. The BIOFIN activities are executed by the RGoZ with technical support from BIOFIN Technical Advisor for Africa, BIOFIN Technical Team at UNDP Country Office and National Technical Experts in the areas of policy and institutions, biodiversity finance and environmental finance. The Programme Officer and BIOFIN Focal Persons in the President's Office, Finance and Planning and the Department of Environment in the First Vice President's Office that provide technical guidance and facilitation.



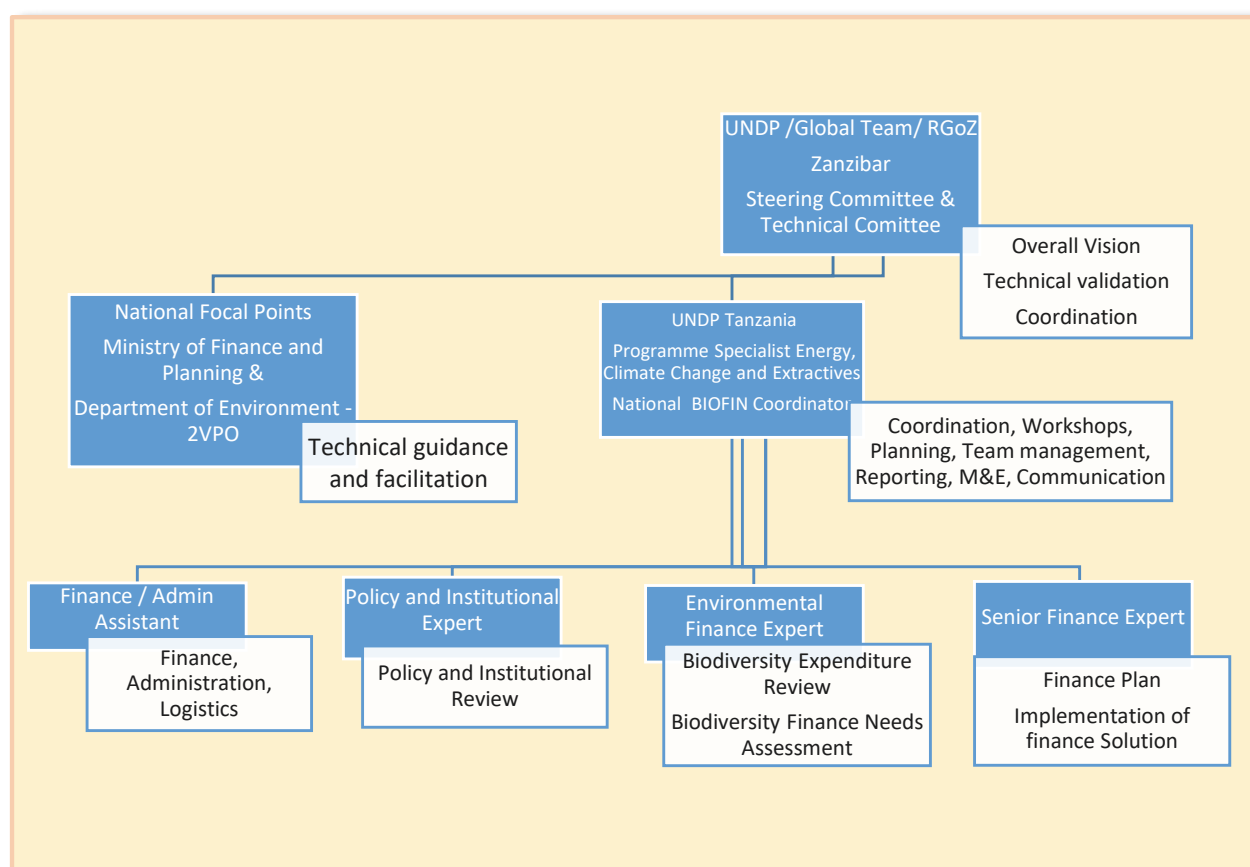


Figure 1: BIOFIN Institutional Arrangement in Zanzibar

## 1.5 Methods used to Collect Data and Structure of the Report

### 1.5.1 Inception

The BIOFIN PIR followed the methodology described in the BIOFIN Workbook (2018) as indicated in Figures 2 and 3. The kick-start involved close engagement with the BIOFIN team members at global and national levels. At national level, this included the UNDP Country Office Programme Specialist, BIOFIN Focal Person in the Department of Environment - First Vice President's Office – Zanzibar and the Focal Person in the President's Office Finance and Planning. The inception phase was mainly limited to virtual meetings through Skype and Zoom as this took place due to COVID-19 pandemic restrictions. The PIR applied an integrated approach and cross

linkage to Biodiversity Expenditure Review (BER), and Financial Needs Assessment (FNA) in order to inform development of a Biodiversity Finance Plan and Finance Solutions for Zanzibar. The Global team provided regular updates to ensure full participation in the global networks including Webinars, Virtual meetings and Mass Open Online Course (MOOC) that generate lessons from other member countries. As such a Joint Inception Report was produced for the entire Project and the report presented in a virtual launch workshop held in June 2020 to contextualize the methodology and build the national ownership.

Regular consultations were undertaken with the parallel Biodiversity Expenditure Review (BER) and the Financial Needs Assessment (FNA) to ensure adequate generation of information to inform the Biodiversity Finance Plan (BFP).

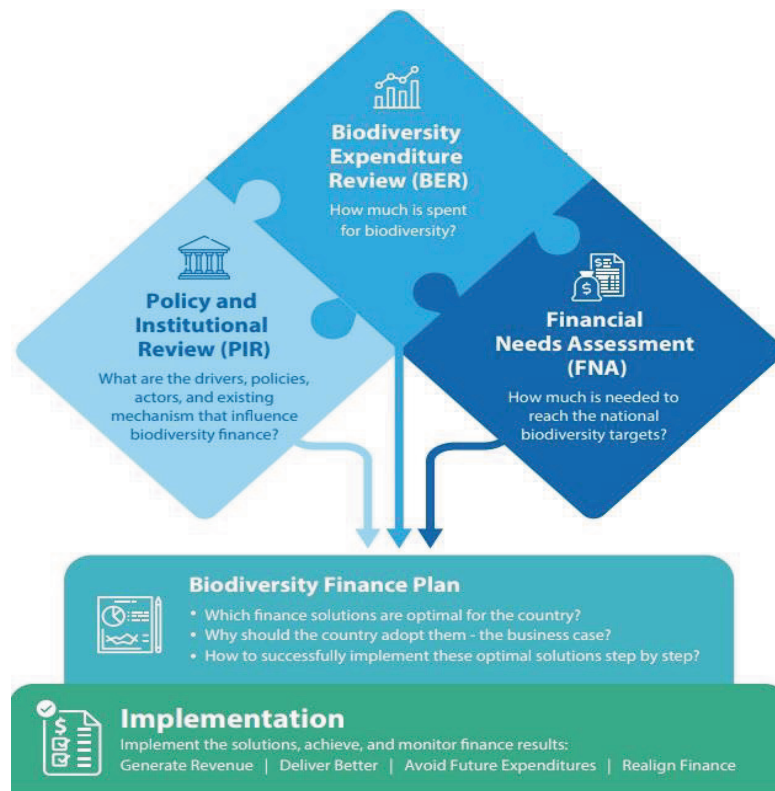


Figure 2: BIOFIN Methodology

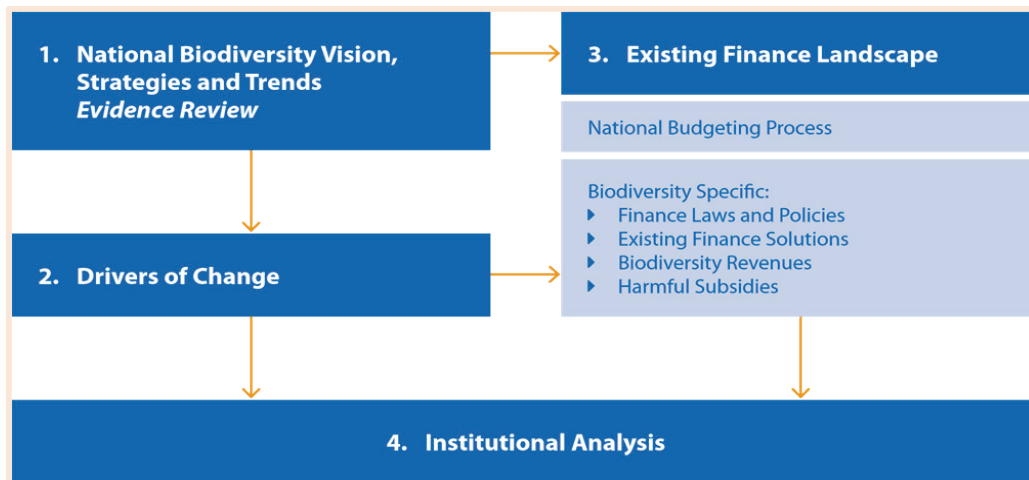


Figure 2: Steps adopted in the PIR

**1.5.2 Documents Review**

The BIOFIN initiative in Zanzibar started with the Policy and Institutional Review as the first pillar. The Desk review on Policy and Institutions analysed the policy and institutional context for biodiversity finance in Zanzibar. The review identified how biodiversity and ecosystem services support national development policies, contribution to SDGs and drivers of biodiversity change, actors and mechanisms for biodiversity finance. Relevant biodiversity policies and

associated plans and strategies and institutions for addressing biodiversity finance solutions were reviewed. The institutional review and analysis summarize the roles and functions of the key institutions active in biodiversity finance. Also developed a comprehension of key policy and institutional drivers of biodiversity and developed a list of existing biodiversity finance mechanisms, incentives, subsidies and other instruments, including sources of biodiversity revenues. A list of main documents reviewed is given in the Reference section.

### **1.5.3 Stakeholders Consultations**

Based on the identified BIOFIN responsible institutions, a stakeholder engagement/consultation plan was developed jointly with the UNDP CO, BIOFIN Focal Person in the First Vice President's Office and the President's Office Finance and Planning during the Inception process. Consultations with key stakeholders were carried out to generate primary data and validate secondary data documented in the key documents reviewed. Due to COVID-19 restrictions in the initial stages of the review, physical meetings and consultations were complemented largely with virtual meetings and communications through Skype, Zoom, emails and telephone calls with relevant Ministries, Departments and Agencies with support from the Focal Points and the Technical Team members. The subsequent physical consultations were then arranged and coordinated jointly between BIOFIN consultants and to avoid overlaps and duplications using a joint tool/ checklist. The checklist enabled access to key documents and ensured that the necessary primary data was generated and secondary data available in various documents was validated.

### **1.5.4 Stakeholders Workshops**

The BIOFIN methodology was expected to involve a series of stakeholders' workshops, meetings and consultations. The kick-start was expected to be an Inception Workshop which was planned at the end of March/early April 2020 in Zanzibar. This was intended to engage with national stakeholders particularly the Steering Committee and the Technical Committee with the objective of securing project ownership and support from various high levels of institutions of the Government (e.g. responsible and relevant Ministries and their respective Departments, Agencies and Authorities). This was also intended to build a shared understanding and vision among key stakeholders for openness to the process, create awareness and understanding on the willingness of responsible institutions and sectors to address the importance of budgetary and management reforms vis-à-vis biodiversity financing, and to make financial data accessible during the BIOFIN Process. It was also meant to identify capacity gaps and coordinate related initiatives. This envisioned consultative workshop by the national BIOFIN

team and stakeholders was not conducted due to the COVID-19 travel and meetings restrictions. However, the Inception discussion took place through virtual Zoom meeting at the end of June 2020 bringing together the Global Team, UNDP CO, UNDP Zanzibar sub-office, Zanzibar Technical Team and consultants. This workshop provided a platform for practical cooperation and 'buy-in' from decision makers in the key ministries and departments. On completion of the draft report, the first stakeholders' consultation workshop was planned for review and input to the draft report. A stakeholders validation workshop was held in Zanzibar on 13th April 2021 for technical clearance of final report.

### **1.5.5 Structure of the Report**

The integrated Policy and Institutional Review report for Zanzibar is presented in six Chapters. The first Chapter gives the Introduction with an overview of BIOFIN, background information on the Policy and Institutions, objectives of the PIR, Institutional arrangements and contributors to the report, methods used to collect data and the structure of the report. Chapter Two presents the Biodiversity Vision and Strategies that include an overview of national development vision, strategies and plans for biodiversity; and existing economic, and fiscal policies. Other information on contributions of biodiversity to GDP, and sectoral dependencies on, impacts and opportunities for biodiversity are also highlighted in this chapter. Chapter Three explains and analyses key biodiversity trends and drivers in Zanzibar. Chapter Four provides the Biodiversity Finance Landscape overview including the national budget process, instruments on government subsidies that impact biodiversity, biodiversity-based revenues and biodiversity finance solutions in the country. Chapter Five analyses the institution specifying institutional arrangements and responsible for biodiversity-related finance, biodiversity finance-related capacities and stakeholder engagement plan. Chapter Six provides a summary of conclusions and recommendations based on the analyses. Technical details and analyses are appended covering Biodiversity Policy and Institutional mandates, Tool/checklist used in data collection and key References cited.

## 2. NATIONAL BIODIVERSITY VISION AND STRATEGIES

### 2.1 Summary of Zanzibar Development Vision, Policies and Strategies related to Biodiversity

Zanzibar, recognizing the critical role that its natural resources play in the national development and social wellbeing has put in place a vision, strategies, institutions and policy directives that provide for biodiversity management and financing. This section reviews macro policy context for biodiversity conservation in Zanzibar governed mainly by the central role provided for in the respective Vision, the Strategy for Growth and Reduction of Poverty and the recently launched Zanzibar Blue Economy Policy. The macro and sectoral policies do also embrace Zanzibar's contribution to international conventions ratified by the URT. The most relevant conventions and protocols to the above sectoral policies include the Convention Concerning the Protection of the World Cultural and Natural Heritage (1977); Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) – (1979) and the United Nations Convention on the Law of the Sea (1985). Others are the United Nations Framework Convention on Climate Change (1996); Convention on Biological Diversity (CBD) - (1996); United Nations Convention to Combat Desertification (1996); Convention on the Conservation of Migratory Species of Wild Animals (1999), the Convention on Wetlands - Ramsar Convention (2000) and also the Southern African Development Community (SADC) Forestry Protocol (2002).

Key sectoral policies and Strategies include the Zanzibar Environment Policy, Zanzibar Climate Change Strategy, the Zanzibar Forest Policy, Draft Fisheries Policy and Fisheries Management Strategy, the Zanzibar Disaster Risk Management Policy and Strategy, Zanzibar Maritime Strategy, Zanzibar Blue Economy Policy, Zanzibar Land Policy, Zanzibar Forest Policy, Zanzibar Agricultural Sector Policy, Zanzibar Tourism Policy, and Zanzibar Energy Policy<sup>2</sup>.

### 2.2 Development Vision 2050

The recently launched Zanzibar Development Vision 2050 (ZDV50) serves as a long-term

national development plan to guide Zanzibar's overall development agenda from the year 2020 to 2050. ZDV50 aspires to lift Zanzibar to an Upper-Middle Income country by 2050 and enhance its contribution to international commitments including Agenda 2030 for Sustainable Development distilled in the Sustainable Development Goals, the Zanzibar Strategy for Growth and Reduction of Poverty – popularly referred to as MKUZA) and the African Union Agenda 2063. The Vision notes explicitly the need to develop a thriving blue economy backed by an effective and sustainable exploitation of marine resources and related areas. This includes development of fisheries and aquaculture, coastal and marine tourism specifically linking this to SDG 14. As for agriculture, ZDV50 aims at transforming agriculture embraced in sustainable and climate resilient production in fisheries, aquaculture as well as marine and forestry products. Based on this Vision, specific strategies are being put in place to realize expected results. These include the Blue Economy Policy (2020) and its Strategy that will tap into Zanzibar's rich marine opportunities and the Five-Year Development Plan called the Zanzibar Strategy for Growth and Reduction of Poverty - ZSGRP (2020 – 2025) - as the ZSGRP IV is yet to be published, the review focuses here on the ZSGRP III (2016-2020).

Pillar IV on Governance and Resilience aspires having effective land laws and policies that observe environmental conditions, sustainable land recycling and reclamation interventions to increase land for use and reserve. It also pursues a comprehensive green and blue development through sustainable management of Environment and Natural Resources (ENR), climate resilience and reduced pollution and environmental degradation. ZDV50 notes that sustainable management of the environment and natural resources as well as improved climate resilience is critical for economic development. Seven relevant environment and natural resources related aspirations highlighted in the Vision are summarized in Box 2

<sup>2</sup> A Comprehensive list of the Policies, Legal frameworks, Strategies and Plans reviewed is included in Section 2.6 and Annex 7.1

### Box 2: ZDV50 Environment and Natural Resources Aspirations

- 1) Reliable, effective and enforceable policies and management tools for sustainable ENR management and enhanced climate resilience.
- 2) An enabling environment for climate change management through sustainable climate financing mechanisms.
- 3) Enhanced national research capabilities focusing on targeted responses to climate change and other ENR issues.
- 4) Integration of sustainable ENR management actions and climate resilience values with development objectives.
- 5) Strengthened sustainable ENR and climate resilient conservation practices to increase the greening of the island ecosystems.
- 6) An increased share of protected marine and forest conservation areas to ensure continuity of ecosystem biodiversity; and
- 7) High capacity on ENR and climate resilience management and practices at all levels.

### 2.3 Zanzibar Strategy for Growth and Reduction of Poverty III

The Zanzibar Strategy for Growth and Reduction of Poverty III (ZSGRP III) popularly referred to as MKUZA III, (2016-2020) includes biodiversity as part of environmental sustainability among its five key result areas (Box 3), focusing specifically on improving gender-responsive environmental measures. The strategy also links to the United Nations Agenda 2030 and the Sustainable Development Goals (SDGs)<sup>5</sup>.

Result Area D on attaining environmental sustainability and climate resilience emphasizes that marine and terrestrial ecosystems will be protected and restored, to reduce biodiversity loss including among other approaches to promote sustainable use of marine and terrestrial resources. This is expected to be realized through three specific outcomes: (i) improving gender-

responsive climate change adaptation and mitigation measures, (ii) marine and terrestrial ecosystems protection and restoration, with reduced biodiversity loss, and (iii) environmental degradation prevention, with reduced environmental and social risks of economic activities. The Strategy stresses that conservation remains a priority area that will require significant improvement, including conservation of coral reefs and forests.

### Box 3: Key Results Areas for ZSGRP III

- D. Enabling sustainable and inclusive growth in key sectors;
- E. Promoting human capital development;
- F. Providing quality services for all;
- G. Attaining environmental sustainability and climate resilience; and
- H. Adhering to good governance principles.

### 2.4 Blue Economy Policy of Zanzibar

Zanzibar's Blue economy is currently being promoted to utilize the benefits of marine resources through integration of ocean economy in the overall development of the entire archipelago. The Blue economy builds on ZDV50 that aims to effectively coordinate and manage development of the ocean and its endowments. It aspires in contributing to Zanzibar's economic prosperity through both its territorial waters and the Tanzania Exclusive Economic Zone (EEZ). To implement the Blue Economy, the RGoZ has established an independent Ministry responsible for Blue Economy and Fisheries and has developed a National Blue Economy Policy (2020) that formalises the development and coordination of blue economy as a growth generator to enhance employment and poverty reduction while addressing biodiversity conservation. This policy is centred on five key thematic areas, namely fisheries and aquaculture; marine trade and infrastructure; sustainable marine tourism and energy, mainly the renewable energy and Oil and Gas. The Blue Economy Policy specifically hinges on contributing towards SDG 14 and aspires

<sup>3</sup> Zanzibar Development Vision 2020



developing sustainable marine and maritime tourism, and sustainable exploitation of marine-related resources and products. The strategies centre on social inclusion, environmental sustainability and innovative business models. These policy priorities and the envisaged strategy will shape specific action to be costed during the BIOFIN process.

## 2.5 National Development Plans and the Contribution of Biodiversity and Ecosystem Services

### 2.5.1 National Biodiversity Strategy and Action Plan

The United Republic of Tanzania as the official Party to CBD formulated her first National Biodiversity Strategy and Action Plan (NBSAP) in 2001. The Strategy was subsequently revised for the period of 2015-2020 to comprehensively link and contribute to the Global Strategic Plan for Biodiversity 2011-2020 (Aichi Targets). The Plan also takes cognizance of respective policies, legal frameworks and institutional set up mandated to manage biodiversity and create ownership in their implementation through five national Strategic goals corresponding to the Aichi Targets (Box 4).

#### Box 4: NBSAP Strategic Goals

- 1) Strategic Goal A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society;
- 2) Strategic Goal B. Reduce the direct pressures on biodiversity and promote sustainable use;
- 3) Strategic Goal C. To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity;
- 4) Strategic Goal D. Enhance the benefits to all from biodiversity and ecosystem services;
- 5) Strategic Goal E. Enhance implementation through participatory planning, knowledge management and capacity building.

The strategic goals span across the United Republic of Tanzania including Zanzibar archipelago. The NBSAP also addresses the other issues such as climate change, invasive species, genetically modified organisms (GMOs), biofuel development, mining, and oil and gas exploration.

Based on these Strategic goals, specific national targets related to Aichi Targets and the SDGs (Figure 4) that will be fully analysed in the BER Component have been set focusing on conservation, sustainable use and Access and Benefits Sharing (Table 1). The targets link to strategies, outcomes and actions. Specific targets on reducing the rate of degradation and fragmentation of ecosystems and loss of habitats are indicated. For instance, Target 7 focuses on agriculture and biodiversity policies, laws and strategies to promote sustainable management of forests, agricultural and aquaculture ecosystems; Target 11 is on increasing marine PAs and managing effectively both terrestrial and marine PAs; Target 14 focus on restoring and safeguarding ecosystems that provide essential services, taking into account the needs of women and local and vulnerable communities; and, Target 15 is on enhancing ecosystem resilience and the contribution of biodiversity to carbon stocks through conservation and restoration of habitats<sup>6</sup>.



Figure 3: Sustainable Development Goals

<sup>4</sup> A Zanzibar Strategy for Growth and Reduction of Poverty (2016-2020)

<sup>5</sup> The ZSGRPV now under preparation is expected to uphold and amplify these priorities as indicated in the National Development Vision 2050 and the Zanzibar Blue Economy Policy

<sup>6</sup> National Biodiversity Strategy and Action Plan (2015-2020). Dar es Salaam. URT. (2015)



**Table 1: Analysis of National Biodiversity Targets and linkage to Aichi Targets and SDGs**

CBD Category/Target	National Biodiversity Target in relation to Aichi Targets (20)	Linkage to SDGs (17)
<b>Conservation</b>		
Protected areas (marine, terrestrial/forest) including establishment, management, research, surveys and assessments, in situ conservation, restoration, policy and planning, and setting up information systems	11 & 17	6, 14 & 15
International agreements (negotiation, policy development, compliance monitoring, reporting)	12, 13 & 17	17
Integration of biodiversity in formal curriculum	1 & 19	4
Forest fire prevention	11	15
Monitoring and evaluation	10 & 13	14 & 15
Promoting and Institutionalizing Ecotourism	4	8, 9, 11 & 12
Plant genetic conservation, research, protection, awareness raising	1 & 13	14 & 15
Capacity building for state employees	1 & 19	8 & 10
Species conservation	12	14 & 15
Ecosystem conservation and management including coastal resources and resources	11 & 14	6, 14 & 15
Forest management and engineering, accounting and biological assessment in the field of forestry and wildlife	20	9, 12 & 15
Defence and national security including enforcement of environment laws	Target 11	16, 17
Participate / monitor / ensure payments and compliance with environment treaties	2	14, 15 & 17
<b>Access and Benefit Sharing (ABS)</b>		
Policy development / Nagoya protocol ratification	16	14, 15
Research on biosafety	9	9, 14 & 15
ABS implementation including contracting, determination and collection of fees and royalties, patents	16	12, 14, 15 & 17
Empower local communities through business development for biodiversity-based economic development	16	6, 8, 12, 14, 15 & 17
Maintain genetic resources database	12	9, 14 & 15
Free and prior informed consent / consultations	20	17
Mainstreaming ABS	16	14, 15
Ensuring indigenous people's rights including land titling and securing tenure instruments	16	6, 15
Capacity building for ABS	1 & 16	14, 15
Synthesize, develop and transfer local knowledge that leads to the development of traditional and herbal products, medicines, treatments and therapies	18	9, 14, 15
Conduct of research for public health	14	3, 9
<b>Sustainable Use</b>		
Mainstreaming Agrobiodiversity Conservation and use	2 & 13	9, 15
Conservation and sustainable use of Microbial diversity		9, 14, 15
Issuance of nature protection permits to replenish river systems	5	6, 15
Forestry research including commercial species, clonal nursery maintenance		9, 15

Forest management including plantations, use of alien and indigenous species	9	15
Maintain ecological limits of lake ecosystem, ensure permitting system, generate revenues from user fees	14	6, 15
Maintain national parks, tourism program, including research and product development	11 & 14	9, 14, 15
Enforce all fisheries laws including commercial fishing	6	14
Maintain sustainable forestry management standards	11	15
Botanical tourism site enhancement	14	9, 15
Community forestry	11	15
REDD+	10, 15	13, 15
Participate, monitor, prepare reports for other international obligations (UNFCCC, Kyoto Protocol, Montreal Protocol, UNCDD, Minamata protocol)	10, 15	17
National Green Reporting system establishment and reporting	10, 15	17
Green Procurement and policy guidelines	10, 15	14, 15
Prevention of IAS, propagation of high value crop varieties	9	9, 15
Prepare and implement a comprehensive National Fisheries Industry Development Plan;	6	9, 14
Monitor and review joint fishing agreements	6	14, 17
Establish and maintain a comprehensive Fishery Information System;	6	9, 14
Establish a corps of specialists in monitoring, control and surveillance (MSC) of fisheries activities	6	14
Border area and heritage site management	11	14, 15
Development of seed production	7, 13	9, 15
Vehicle emission testing		13
Awareness programmes on climate change impacts	15	13
Policy development on climate change (INDC and NAMA preparation)	10	13
Addressing climate change impacts on marginalized agricultural communities	7	13
National post-consumer plastic waste management project	8	11
Plastic waste management programme	8	11
Establishment of green accounting mechanism	2, 20	11
Promote innovative low interest financial scheme/s for environment friendly businesses	4	9, 12
Incentives for Environmentally friendly Investments	3	9
Mainstreaming of climate change, disaster risk reduction, sectoral and local development planning; investments in climate sensitive sectors such as water resources, agriculture, forestry, coastal and marine resources, health and infrastructure;	10	13
Agriculture and fisheries education	6 & 7	4, 14, 15
Land tenure improvement including shift to organic agriculture	7	12, 15
Water resources conservation	14	6, 15
Fisheries research focusing on commodity roadmaps	6	9, 14
Implement climate tagging	15	13
Integration of biodiversity in formal curriculum	19	4, 6, 14, 15
Pollution management	8, 10	9, 13

Disposition of foreshore lands		14
Setting of environmental standards, rehab and pollution thresholds	8, 10	9, 12, 13, 14, 15
Solid waste management	8, 10	9, 12, 13
Mapping and oceanographic surveys	10	14
Issue water permits; protect and utilize surface and groundwater	14	6, 15
Implement sustainable livelihoods program	15	11, 14, 15
Promotion of cash crops	13	9, 15
Issuance of land titles to support farming and poverty alleviation		15
Water quality monitoring	8	6
Coastal erosion prevention	5	13, 14, 15
Promotion of zoos for tourism	12	15
Management of water reservoirs	14	6
Promotion of green agriculture town		9, 15
Sustainable urban planning	5	11
Development of underground water protection facilities and industrial effluent treatment	8	6
Riverbank rehabilitation	5	6, 15

### **2.5.2 Zanzibar Biodiversity Conservation Strategy and Action Plan**

Zanzibar archipelago as part of the URT has experienced biodiversity loss over the recent decades mainly through a mix of anthropological activities resulting to overexploitation of both terrestrial and marine (wildlife, forests and aquatic) resources mainly for subsistence and economic development, increasing land requirements for agriculture and infrastructure development, environmental pollution mainly from tourism and infrastructure development and impacts of climate change. Decline in ecosystem products and services related to climate change impacts such as coastal erosion, sea level rise, strong waves and winds, erratic rainfalls and rising temperatures - projected to increase by 1.5 to 2°C by 2050s. Other impacts include an increase in the frequency and intensity of extreme weather events, such as droughts and floods as well as increased rainfall variability. Zanzibar is particularly vulnerable and at risk from climate change due to its primary reliance on coastal, marine and terrestrial ecosystems.

While the National Biodiversity Strategy and Action Plan (NBSAP 2020) serves as the central document demonstrating the country's vision and strategies for biodiversity management, it does not specifically address Zanzibar's unique island

ecosystem and biodiversity priorities. To address the challenges of biodiversity management, Zanzibar is thus developing a specific Zanzibar Biodiversity Conservation Strategy and Action Plan (ZBSAP) As part of the 6-Year Project (2019-2025) on: Safeguarding Zanzibar's Forest and Coastal Habitats for Multiple Benefits. In the interim stage , other national complementary strategies have been used with reference to national sustainable development strategies. These include the Zanzibar Development Vision 2050 (ZDV50), Blue Economy Policy (2020), Sustainable Development Goals (SDGs), the Zanzibar Strategy for Growth and Reduction of Poverty III (ZSGRP III), sector specific policies and strategies mainly on marine and coastal management, forestry, fisheries, agriculture and Climate change financing that bear direct impacts on biodiversity and ecosystem services.

It is anticipated that ZBSAP will be more comprehensively link to Aichi Targets and the Sustainable Development Goals (SDGs) with integration into national development planning and budgeting processes. It is also expected that implementation and financing of the ZBSAP will include an institutional arrangement for all key actors responsible for implementing the strategies and actions to effectively be engaged. Development of ZBSAP comes at an opportune time as this strategy will link to the newly

launched ZDV50, the Blue Economy Policy (2020) and the MKUZA IV - Five Year Development Plan (2020 – 2025) and therefore constitutes a credible opportunity for BIOFIN to be anchored in the national planning mechanisms. The biodiversity targets to be identified as part of the BIOFIN Financial Needs Assessment will be a major input for the ZBSAP.

## **2.6 Biodiversity within the Sector Policies, Strategies and Legal Frameworks**

The national sector policies for Tanzania do not operate as overarching policies for the URT. As such, the policies, legal frameworks and strategies/plans reviewed in this section are specific for Zanzibar. This builds from the general national frameworks where environment and natural resources are not considered as union matters although the overall frameworks related to regional and international are adapted in respective policies to allow Zanzibar contributing and benefitting from respective contributions.

### ***Zanzibar Environmental Policy (2013)***

The Zanzibar Environmental Policy (2013), is overseen by the Department of Environment and the Zanzibar Environmental Management Authority under the First Vice President's Office. The Policy provides direction on overall and sector specific policies in relation to biodiversity conservation, natural resources management and climate adaptation. The policy recognises the link between healthy ecosystems, natural resources, and sustainable development. Tourism is mentioned as the sector that increasingly presents environmental and social challenges that need strong and coordinated national attention to restore the ecological balance and integrity of the coastal and marine ecosystems and proposes improvement of environmentally sound and socially acceptable tourism practices. As for marine and coastal environment, the policy promotes integrated coastal zone management approaches on the understanding that coastal and marine resources touch on various sectors and players. The policy promotes engagement of the private sector in sustainable tourism investments based on its intricate link to biodiversity (flora and fauna). The policy underscores monitoring and prevention of environmental pollution and degradation of natural vegetation, environmental

sustainability for balanced consumption and regenerating capacity of ecosystems. These are critical targets for the Zanzibar's BIOFIN Plan.

### ***Zanzibar Land Policy (2018)***

The Zanzibar Land Policy framework integrates environment into social and economic development policy framework while providing transparent and easy access to land for all. The Policy stresses on protection of environment, cultural heritage and sustainable use of natural resources in the terrestrial and coastal domains in Zanzibar. It also addresses the challenges of climate change and related consequences of natural disasters, food shortage, and recognize the trend of rapid urbanization as a major challenge on environment and biodiversity carrying capacity to sustain future living and livelihoods. It further creates directives for land administration and provides for liberal methods of acquisition of land or right of use of land and promotion of sustainable land-use planning and practices to reduce degradation of natural resources.

### ***Zanzibar Forest Policy (1996)***

The Zanzibar Forest Policy (1996) is the main instrument under the jurisdiction of the Department of Forestry and Natural Resources (DFNR) that guides management and conservation of forest resources, forest parks and reserves, preservation of terrestrial wildlife corridors and habitats, and biodiversity conservation. The main forest categories include the core protected areas and Community Forest Management Areas (CoFMAs) around core protected areas (PAs). Protected terrestrial and coastal forests including mangroves constitute the mega biodiversity hotspots in Zanzibar land area. These include forest reserves that harbour wildlife mainly primates and birds such as Jozani Forest reserve which is popular for its Red Colobus monkey population. Mangrove forests that occur half-way between dry land and the sea are unique salt-tolerant trees. Zanzibar has ten (10) different mangrove species occupying extensive areas that are ideal for feeding, breeding, nursery and shelter areas for fish and other marine species and therefore constitute one of the critical biodiversity hotspots in Zanzibar. They provide important bird nesting grounds and harbour high plant biodiversity, invertebrate and bird species.

<sup>7</sup> Zanzibar Development Vision 2050

Key strategies relate to management of protected areas, and establishment and management of CoFMAs.

### ***Zanzibar Tourism Policy (2017)***

The Tourism Policy of 2017 identifies tourism as the leading sector in Zanzibar's economy contributing about 27% of the GDP and creating 35,000 direct service jobs in 2019. Key environmental concerns associated with tourism industry in Zanzibar include destruction of the coastal habitats through negative land uses such as land reclamation, construction of jetties and sea walls, increased use of water resources, and increase of solid waste and wastewater discharged. These challenges emerge as a result of inadequate coordination among relevant sectors and integration of tourism in development planning. The tourism sector is to be enhanced by building an integrated and inclusive and sustainable tourism that hinges on the attractive ecological systems both terrestrial, marine and beaches. The stunning marine underwater scenery rich in coral reefs are part of the key natural asset of the Island and hosts key biodiversity related attractions for diving, game fishing and snorkelling.

The Tourism Policy therefore focuses on scaling up and stimulating development and promotion of tourism to optimize its contribution to the national economy. It has among others, a specific objective and strategies on ensuring effective management and conservation of cultural, environmental and historical resources. To promote the tourist image of Zanzibar, the Policy upholds conservation of natural ecological systems and attraction features. This is amplified by articulate statement on ensuring that Zanzibar's biodiversity, natural resources landscapes and seascapes are conserved, protected and well managed. It stimulates participation of all key actors including local people in the tourism development that provide alternative source of income for local communities and also promotes public/private partnership in tourism development.

### ***Agricultural Sector Policy of Zanzibar (2003)***

Agriculture is the main sectoral cornerstone of ZSGRP III and has remained the most important sector of the economy in terms of its contribution of

about 23% to the GDP and employment averaging 21.3% of the population in 2018. Relative to the other sectors, agriculture is currently placed as third priority of total government expenditure annually.

The Zanzibar Agriculture Sector Policy (2003) was thus prepared to promote sustainable development of the agricultural sector for economic, social and environmental benefits and promotes integrated and sustainable use of natural resources through adoption of environmentally friendly agricultural technologies and practices such as organic farming to reduce pollution and biodiversity loss. The policy promotes agricultural land use patterns to optimize uses of lands and minimise conflicts among the various users of land. The policy has strategies on educating the public on environmental protection and conservation, promoting agro-forestry practices and intensifying genetic resource conservation programmes. These are clear costable strategies in the BIOFIN categories. ZSGRP III focuses on modernization of production in the agriculture sector through increase in the volume and value addition of agriculture products. Improvement in agricultural productivity is envisaged to reduce the destructive shifting agriculture. Emphasis is placed on commercialisation of agricultural production and transformation of agro-businesses including deep sea fishing, aquaculture and processing for export. Main programmes have been on development of irrigation infrastructure and community micro-irrigation, mechanisation of agriculture and improvement of farming practices including organic farming.

### ***Fisheries Policy (2014)***

The Fisheries Policy, (Draft 2014) implemented by Department of Fisheries Development (DoFD) and the Fisheries Act No. 7 of 2010 guide management of the fisheries in Zanzibar including establishment and management of Marine Protected Areas (MPAs). The MPAs constitute major biodiversity management strategy and governance for marine and coastal resources. The policy stresses on supporting artisanal fishermen, the fish landing sites and resources and on helping with micro-credit facilities. The policy provides a framework on environmental conservation of

<sup>8</sup> The Zanzibar Government Budget Speech, 2019/2020

<sup>9</sup> Zanzibar Agriculture Sector Policy (2003)



the marine ecosystems such as coral reefs; and calls for an increased education and awareness programs on marine conservation. The Policy sets ground for implementation of the Integrated Coastal Zone Management (ICZM) in recognition of the interplay and the need for coordinated arrangements between various sectors and also lays a framework for conflict resolution over territorial disputes of artisanal fishers.

#### ***The Agricultural Marketing Policy (2012)***

The Agricultural Marketing Policy (2012) overseen by the Department of Agriculture (DoA) underlines stimulation of agro processing and value addition to reduce waste and broaden productivity. Strategies for this policy focus on improving production and value addition that will reduce the shifting cultivation which has been one of the drivers for habitat and biodiversity destruction. In implementing the policy, DoA works with an array of partners including the private sector and NGOs in the production, processing and marketing chain.

#### ***Water Policy (2004)***

The Zanzibar Water Policy (2004) provides direction on water resources management. It recognizes the importance of environmental considerations in development and implementation of water resources management in Zanzibar. Management of forests as key habitats in the catchments and wetlands create an opportunity for biodiversity management in relation to water. Innovative financing mechanisms such as Payment for Ecosystem Services (PES) are not addressed to generate resources to re-invest in water resources management. The Policy revision to address both the management aspects as well as the financing of biodiversity management is one of the actions relevant under Zanzibar BIOFIN Plan.

#### ***Zanzibar Investment Policy (2007)***

The Zanzibar Investment Policy (2007) was developed to attract investments from both Foreign Direct Investment (FDI) and local sources into the economy, currently contributing towards realization of the Zanzibar Development Vision 2050. The investment policy promotes attraction of FDI commensurate with opportunities for fisheries and marine sub-sector development that serves as an entry point to biodiversity financing. Due to the finite land of the Zanzibar Island,

the Policy emphasizes on instituting a secure land tenure system that promotes maximum use of land resources. The policy advocates incentives that promote investments and promotes strategies for attracting, strengthening and broadening venture capital companies, and finance companies through investments by public, private local and foreign investments. The fiscal and non-fiscal incentives include provision on corporate tax relief, investment allowances on capital expenditure; reinvestment on capital expenditure; preferential tax rates for withholding tax on dividends, royalties and interest. Other incentives are preferential rates on indirect taxes, and deductions of specified costs and expenses.

#### ***Disaster Management Policy (2011)***

Disaster Management Policy (2011) focus on disaster risk reduction and livelihoods support. It aims to develop the required national capacity to coordinate and collaborate on comprehensive disaster management programs among the principal players. The policy identifies key issues as being erratic rainfall patterns, food shortages, terrestrial and marine degradation, depletion of mangrove forests and waste management. These issues form key synergies with some of the identified BIOFIN drivers and strategies.

#### ***Education Policy (2006)***

Education Policy (2006) recognises the necessity of incorporating environmental education in capacity development programmes that include environmental management and conservation of land, water and air. Environmental education focuses also on the preservation of forests, beaches, coral reefs and hazards of environmental pollution which is key biodiversity conservation strategy for BIOFIN solutions related to capacity building.

#### ***Zanzibar Employment Policy (2008)***

Zanzibar's Employment Policy (2008) acknowledges the role of agriculture and natural resources as important sources of employment to the rural community and in supporting livelihoods. The Policy emphasizes private sector investment in production and marketing of traditional and non-traditional products to increase income and create employment opportunities that will reduce degradation of natural resources for the dependent poor communities.



**Zanzibar Energy Policy (2019)**

The Zanzibar Energy Policy (2019) focuses on providing guidance on formulation of comprehensive energy prices and taxes/levies to ensure financial and economic sustainability; ensuring reliable and guaranteed energy supplies to cushion the economy from external and internal disruptions of supply and price fluctuations. It also aims to develop and utilize existing and potential energy resources; provide incentives on energy conservation and increase energy efficiency including energy technologies and develop the necessary institutional capabilities by introducing appropriate incentive measures and undertaking energy development programs. The main priorities in the new Policy include placing high priority on development and use of indigenous energy sources such as renewable energy and fossil fuel resources which are currently under exploration; and ensuring gradual transition from traditional energy fuels to modern fuels. It also focuses on developing and publicizing standards and codes to ensure efficient energy use and developing human resources and integrated energy institutions. On partnerships, the Policy provides a framework for private sector support, investment framework and incentives to participate in the development of the country's energy resources. The Policy pays attention to ecological and environmental safeguards in development of energy projects.

**Food Security and Nutrition Policy (2008)**

Food Security and Nutrition Policy (2008) acknowledges the role of agriculture including natural resources related products as an important source of food and income generation for rural and peri-urban communities who rely on extraction of natural resources for subsistence. The policy states that increased food and nutrition security is largely dependent on sustainable development and diversification of income and livelihood options that are usually linked to natural resources and habitats that harbour biodiversity. Some of the key strategies promoted dwell on increased production to reduce dependence on naturally extracted sources of food and products for household income.

**Zanzibar Industrial Policy (2019)**

The Zanzibar Industrial Policy envision Zanzibar becoming a hub for production of agro, marine

and light manufacturing with high value products to sustain the local economy and providing income and employment while preserving the archipelago's pristine environment and culture. The policy targets specific and critical areas of intervention including agriculture, infrastructure facilities and investment incentives relevant to industrial development. Implementation strategy for this Policy identifies key stakeholders particularly the private sector and the PPP opportunities. The policy proactively promotes a thriving and sustainable agro-, blue economy, light manufacturing and emerging industries by ensuring a more enabling business environment and engagement of investors to the extent that businesses in the industrial sector are competitive, profitable, inclusive and environmentally safe.

**Trade Policy (2006)**

Trade Policy (2006) which is now under review, emphasizes community-based development approach with a view to encourage social cohesion in investment, increased local involvement and adoption of modern practices and systems. The policy also calls for improvement in both the public and private sector performance. The establishment of the Zanzibar Bureau of Standards (ZBS) gives an opportunity to ensure management of biodiversity related products and services.

**Zanzibar Local Government Policy (2012)**

The Zanzibar Local Government Policy (2012) objective is to ensure that an accountable local government is established with capacity to provide better and efficient basic services to the people. It also aims to safeguard livelihoods and ecosystem services that include land, water, waste management, ocean, etc. The Policy promotes grounds for local level good governance framework, provision of local socio-economic programs, security and protection, conflict resolution mechanisms and ensuring the welfare of the local communities. On sustainable development, the policy promotes conservation of terrestrial, coastal and marine environment within respective local government jurisdictions.

**Zanzibar Livestock Policy (2009)**

The Zanzibar Livestock Policy (2009) principally focuses on livestock development in the island taking note of the finite land available livestock.

On biodiversity related strategy, the policy takes into account coastal resources management recognising the cultivation of multipurpose trees as a potential source of fodder and forage.

### ***Climate change Policy Framework***

Like the URT, Zanzibar has no specific Climate change policy. However, Climate change issues are governed by other relevant specific policies, sectoral legal frameworks and strategies including the Zanzibar Environmental Policy (1992) revised in 2013, Zanzibar Environmental Management Act (1996) revised in 2015, and the Environmental Management for Sustainable Development Act No. 2 of 1996 under the Department of Environment. Zanzibar's contribution to global greenhouse gas (GHG) emissions is considered to be minor. However, being an island, the country is highly vulnerable to the climate change impacts including sea-level rise, increased rainfall variability, and an increase in the intensity and frequency of extreme weather events. Natural resources in Zanzibar including biodiversity are under increasing pressure driven by among other drivers, the impacts of climate change. Various climate change mitigation and adaptation initiatives including environmentally sustainable income generating activities have been piloted to safeguard Zanzibar's terrestrial and coastal habitats and to address the drivers of deforestation, land degradation and biodiversity loss.

### ***Zanzibar Environmental Management Act No.3 (2015)***

Zanzibar Environmental Management Act No. 3 (2015) is the legal framework that guides environmental governance, management, and enforcement in Zanzibar including biodiversity conservation. Zanzibar rely much on coastal, marine and terrestrial ecosystem services that underpin its unique tourism and sustenance for the livelihoods of more than 1.5 million population. The Act addresses environmental governance, integrated coastal zone management, response to environmental emergency, application of environmental impact assessment tools, climate adaptation, conservation of biodiversity through the protection of coastal and marine resources and prevention of deforestation. It also sets safeguards and procedures to minimise pollution and environmental degradation and emphasize

on efficient waste management. It focusses on maintaining basic ecological processes of land, water and air and ensure environmentally sound and healthy quality of life of the people of Zanzibar. It promotes sustainable use of renewable natural resource and the rational use of non-renewable natural resources and preserve the biological and cultural diversity of Zanzibar's lands and marine. The Act provides the basis to strengthen institutional capabilities for protecting the environment and sets standards and procedures for Environmental Impact Assessment (EIA) and Environmental Audit (EA) and defines obligations for all stakeholders. It also provides for the development of national, local and community environmental action plans. On institutional set up, the Act provides arrangements for coordinated approach to environmental compliance and enforcement of laws under the mandates of the Department of Environment (DoE) and Zanzibar Environmental Management Authority (ZEMA). The Act sets provisions for establishment of an Environment Fund to finance conservation and environment management programs. The Act has very clear mandates on enforcement of environmental laws and regulations that provide building blocks for the BIOFIN actions.

### ***Forest Resources Management and Conservation Act No. 2 (1996)***

The Forest Resources Management and Conservation Act No. 2 of 1996 is the main tool that provides legal framework for biodiversity conservation in core protected areas and Community Forest Management Areas (CoFMAs) as well. The Act puts clear mandates and surveillance actions on forests. The Act translates legal management responsibilities between different actors including the co-management with communities and benefits sharing arrangements.

### ***The Fisheries Governance Strategy (2014)***

The Fisheries Governance Strategy (2014) facilitates application of good governance principles to reach the general objectives stated in the ZSGRP III and Vision 2050. It provides guidance on the fishery sector in Zanzibar, including improving the overall governance framework (legislation, regulation, planning, institutions and management). The Strategy promotes establishment and management of Marine Protected Areas (MPAs) as a major

biodiversity management strategy for marine and coastal areas. The Governance Strategy as well establishes participatory fisheries management structures including local level fisheries management committees (Shehia Fishermen's Committee). The Strategy brings together public and private institutions that have direct or indirect responsibility in the management of sustainable fisheries, coral reefs, marine conservation areas building consensus on fisheries management and implementation under environmental and sustainability safeguards. The different stakeholders categorized in the Strategy include central and local government authorities, NGOs, private sector, academic and research institutions and the communities. Key flagship programmes identified in the ZSGRP III form part of the implementation strategies mainly on development in deep sea fishing and mariculture, aquaculture to preserve unique marine biodiversity that are under threat from destructive fishing.

#### ***Regional Administration Act (2014)***

The Regional Administration Act (2014) specifies powers and functions of the Regional, District, and Shehia Government administrators. It covers all matters related to the social, economic and environmental governance in the lower administrative units such as in the Shehias. Specifically, Section 22 (1) (d) of the Act engages on assisting in the use and management of natural resources, protection of environment for sustainable development and in all activities of national development. On investments, project proponents are required to collaborate with the regional, district and Shehia administration in the implementation of social and environmental safeguards of the proposed project. Proponents are as well required to coordinate with the community in the implementation of the Corporate Social Responsibility (CSR) in the areas affected by the operations of such developments.

#### ***Local Government Authority Act (2014)***

The Local Government Authority Act (2014) provides for general functions of the local council. Section 26 (1) of the Act specifies functions and responsibilities related to maintenance of environmental sanitation and control of environmental pollution. It also guides supervision and ensuring measures to control

extraction of stone, sand, wood, and other forms of natural resources are observed. The Act promotes conservation related interventions such as afforestation and urban forestry initiatives, implementation of land use planning, climate change adaptation/mitigation and disaster management.

#### ***Marine Conservation Unit Regulations 2014***

The Marine Conservation Unit Regulations (2014) establishes the Marine Conservation Unit (MCU) as an organ mandated to coordinate marine conservation areas (MCAs) issues under the Fisheries Act No. 7 of 2010. Specific functions include management of marine conservation areas (MCAs), controlled areas in collaboration with communities and guiding sustainable use of marine resources. The regulations put in place various governance structures including a Technical Committee, Fishermen's Executive Committee, an Advisory Committee, and Shehia Fishermen's Committee. The regulations also establish a Marine Protected Areas Fund that draws its resources from government, voluntary payments and donations and fees collected from the protected areas where 70% of the funds are used for operational expenses in the controlled areas and 30% for supporting community development activities. Currently, the Unit manages Menai Bay Conservation Area (MBCA), Mnemba Island Marine Conservation Area (MIMCA), Pemba Channel Conservation Area (PECCA), Tumbatu Marine Conservation Area (TUMCA), Changuu Bawe Marine Conservation Area (CHABAMCA). There are also "controlled areas" (mostly used for seasonal closure programs) that may be within or outside the MCAs that are jointly managed by the Government and the local communities.

#### ***Zanzibar Oil and Gas (Upstream) Act 2016***

The Zanzibar Oil and Gas (Upstream) Act (2016) regulates oil and gas development and management. A potential strategy embraced by the Act is the establishment of a state-owned investment founder to deposit petroleum revenues in predetermined strategic development sectors which could serve as a finance solution for environmental and biodiversity protection.

#### ***Zanzibar Integrated Solid Waste Management Strategy (2019)***

Solid Waste Management (SWM) situation

in the Zanzibar archipelago, in both Unguja and Pemba Island is challenging. Solid waste collection and disposal are improperly done in environmentally sensitive areas such as on the beaches, in the ocean, including the tourist areas. Hardly any SWM service revenues from the households or commercial sector are being collected, and thus the required waste collection and disposal is inadequate. With the projected substantial increase in population and economic development, generation of the various waste streams, i.e. municipal/commercial, hazardous waste, health care risk waste, will increase, affecting the fragile environment and coastal and marine biodiversity. However, the Zanzibar Integrated Solid Waste Management Strategy prepared in 2019 addresses the existing Solid Waste Management (SWM) challenges and provides priorities in the Zanzibar archipelago that would lead to a cleaner and environmentally safer environment for its inhabitants and the tourists visiting the islands. The policy strategy focuses on integration of policy and legal frameworks related to waste management in Zanzibar. The strategy specifically promotes institutional adjustments related to sustainable waste management, financial tools/measures (including PPP), public awareness and community involvement in SWM and capacity building, as a cross cutting aspect.

#### ***Zanzibar Maritime Strategy (2019)***

The Zanzibar Maritime Strategy (2019) aims to accelerate adoption, incorporation, mainstreaming, implementation and enforcement of IMO instruments into the local maritime regulations. The Strategy also enhances the level and capacity of maritime safety and security for the local shipping activities; and ensure compliance in the protection of marine environment and coastal zones.

#### ***Zanzibar Maritime Authority Strategic Plan (2016 – 2021)***

The Zanzibar Maritime Authority Strategic Plan spanning the period of five years (2016 – 2021) focuses on creating a good framework for future and sustainable economy of maritime industry and services development. As part of the safety and environmental responsibilities, Zanzibar Maritime Authority is also responsible for preventing marine sources of pollution and protection of the marine environment.

#### ***Zanzibar Marine Oil Spill Response Contingency Plan (2019)***

Zanzibar Marine Oil Spill Response Contingency Plan (2019) was prepared for the purpose of responding to maritime oil spill incidences and protection of human health, marine and coastal zone environment from vessels related marine oil spills and discharge. The plan recognizes that marine oil spills pollution poses a threat to beach amenity and the related tourist industry, destruction of coastal installations, sea birds, marine life and fisheries leading to revenue and livelihoods losses.

#### ***Zanzibar Climate Change Strategy (2014-2020) and Action Plan (2016-2021)***

Zanzibar has developed its national climate change Strategy and Action Plan both detailing strategies and priority activities to address the National Vision 2050 and MKUZA III. The Strategy puts in place various climate change adaptation and mitigation initiatives to address the drivers of deforestation, land degradation, and biodiversity loss and safeguard Zanzibar's terrestrial and coastal habitats. Priorities include promotion of Community Forest Management Agreement CoFMAs to achieve climate change mitigation objectives and enhance carbon sequestration in natural ecosystems. Implementation of these strategies and plan is envisaged under the Zanzibar Climate Change Financing mechanism and Resource mobilisation plan (2016). The mechanism is serves as a country driven, framework, and a platform for the implementation of the National Climate Change Strategy (NCCS). It encompasses various options to allow coordination and tracking of resources and funding streams, such as national budgets, projects, general budget support, trusts, basket funds or program. The broad objectives for the National Climate Change Financing Mechanism (NCFM) is to work as a facility for channelling funding and support for climate change (CC) aspects namely alignment with country's planning and budgeting mechanisms and capacity development to absorb and manage climate change financing. The URT has not capitalised on the potential for climate change financing and therefore varied financing options have not been to align behind government priorities for climate change. This makes it difficult to identify and track funding allocated specifically for climate change



activities at the national level. The mechanism is anticipated to broaden climate change financing through widening national access to global funding mechanisms. Tracking of climate change mitigation and adaptation within national budgets is embraced in this mechanism based on the Rio markers. The Strategy proposes promotion of CoFMAs to achieve climate change mitigation objectives and enhance carbon sequestration in natural ecosystems (RGZ, 2014). Implementation of adaptation and mitigation strategies and plans is covered under the National Climate Change Financing Mechanism and Resources Mobilization Plan (2016) which will also form a comprehensive climate change expenditure framework and create better interaction with the Ministry of Finance and Planning and other partners.

## 2.7 Economic valuation of biodiversity

Understanding economic values of biodiversity and the natural environment in which they occur is deemed important for appropriate policy and decision making geared to foster sustainable biodiversity conservation and its contributions to socio-economic development. Since biodiversity embraces a broad and diverse range of flora and fauna species in diverse ecosystems and landscapes at different levels of protection status, economic valuation is a continuous process and cannot be accomplished at one time. In addition, since ecosystem services generated by biodiversity and associated nature in protected and unprotected areas vary across spatial-temporal scales, economic values of biodiversity also vary accordingly. With these facts, therefore, we noted inadequately documented information on economic valuations of biodiversity and nature in Zanzibar that could inform the BIOFIN implementation process in Zanzibar. However, the team managed to access some information, worth presenting in this chapter. Generally, the observed gap on economic valuation of biodiversity and nature in Zanzibar calls for appropriate decision-making and international collaborations to be filled. For example, thorough economic valuation of mangroves, coastal forests, terrestrial and marine protected areas, and other biodiversity-related physical resources and tourist attractions in Zanzibar is paramount.

### 2.7.1 Economic value of marine ecosystem services in Zanzibar: Implications for marine conservation and sustainable development (2009)

Zanzibar as a small, densely populated island archipelago has many endangered and rare species of corals, fish, seagrass, mangroves, and other flora and fauna. Its population is highly dependent on the marine ecosystem which accounts for 30% of GDP. The study noted that marine ecosystem degradation in Zanzibar is driven by both human and natural causes namely uncontrolled tourism development, rapid population growth, overfishing and destructive fishing practices, overharvesting of mangroves, dumping of untreated wastewater from urban areas and coral bleaching. The study mainly focused on reviews of major ecosystem services, their benefits and dis-incentives for degradation and analyses the critical role played by coastal and marine ecosystem services, especially in poor communities and notes the need to recognize the economic value of all ecosystem services and their contribution to sustainable economic welfare that has been underestimated, resulting in under-investment in conservation and lower incomes.

The study noted that integration of biodiversity with the national income accounts, economic valuation will help line ministries, private sector and civil society organizations directly involved in the use and management of the marine ecosystem. It will also help agencies responsible for macroeconomic management, like the Ministry of Finance, which controls the national budget and makes policies to better prioritize marine ecosystem management because of informed decision-making with major indicators of macroeconomic performance such as the contribution to GDP and employment. At the sectoral level, information about distribution of benefits contributes to improved management particularly when benefits accrue to those who manage natural resources.

Zanzibar's national poverty reduction and economic development plans are highly dependent on sustainable management of its natural capital, especially the coastal and

<sup>10</sup> Ocean & Coastal Management, Volume 52, Issue 10, October 2009, Pages 521-532

marine ecosystem. It notes that Zanzibar's rapid growth of tourism-based economy hinges on its spectacular beaches and coral reefs, combined with a rich cultural heritage whose impact on the marine environment and local communities, were not adequately integrated in national plans and financed. Economic valuation is expected to provide stakeholders with a tool for decision-making based on the economic value of the marine ecosystem specifically the value of marine ecosystem services in the macro economy; and how economic benefits are distributed among different stakeholders and also management and utilization such as fishing and fishing-related activities, seaweed farming, mangrove harvesting for fuel, timber, and other products tourism and related activities; education and research related to the marine environment as well as habitat provision for fisheries waste water assimilation and beach erosion control.

Zanzibar's focus on poverty reduction and the implications for sustainable management of benefits accruing to local communities include benefits to local communities where activities based on marine ecosystem services in the coastal areas fall. These include beach hotels with tourism related services, fishing and seaweed farming as direct examples.

### **2.7.2 Climate change financing related initiatives and studies**

The Change Financing Study (2011) indicated that the immediate needs for building adaptive capacity and enhancing resilience against future climate change in Tanzania have been estimated at US\$100-150 million per year. Most policies and strategies that built on this estimation embraced biodiversity as part of natural resources and climate change based solutions. Added to this is the funding required to address current climate risks, estimated at an additional cost of US\$500 million per year. The study projects financing needs of up to US\$1 billion per year by 2030 in addressing future escalations in economic and social costs. It has also identified challenges on alignment and integration in Government priorities and the Ministry of Finance not taking lead on the coordination of climate change. Opportunities for increasing alignment include increased commitment by donors to support

national priorities mainly through budget support and specific climate finance through earmarked funding for adaptation and mitigation activities. Key recommendations include improving coordination from the government, donors and engagement of non-state actors through joint financing and harmonization of programmes and projects.

### **2.7.3 Options for a Climate Finance Mechanism/Climate Fund in Tanzania**

The study on Climate Finance Mechanism carried out in 2013 was commissioned by the URT, DFID/World Bank to support the UNDP (United Nations Development Assistance Programme) process to engage with the governments of Mainland Tanzania and Zanzibar on a multi-year programme to strengthen climate change in Tanzania. This review noted that flow of UNFCCC finance to Tanzania has been relatively modest, the largest being from the locally based development partners for large projects on REDD+ and renewables, which total over \$100 million over the past few years mostly in form of grants and some limited loans. The levels of climate change expenditure across government has also been low. The level of capitalization in the financing mechanism was projected at \$50-60m over a 3-5-year period, with an effective fund and institutional mechanism in place. The national climate finance mechanism/fund is intended to implement the Tanzania National Climate Change Strategy (NCCS) providing a potential to increase climate finance flows to the country, and create a single institutional framework to streamline the processes for approving and managing funds through provision of coordinated access to international and other climate finance; mainstreaming of climate action across relevant government sectors and engage with national growth and poverty reduction plans; increasing planning and delivery capacity for climate programming.

The mechanism will optimize the use of existing sector funds and attract finance on a thematic basis using available instruments. The study provides very good lessons including the need for high level leadership support to overcome and structure barriers, broad range stakeholder engagement and integration in policy, planning

<sup>11</sup> Climate Change Financing and Aid Effectiveness, Tanzania Case Study, 2011



and budgeting processes.

The review provides for a range of instruments beyond grant finance, to include concessional loans and guarantee instruments as well as leverages by private sector investment into priority sectors and landscapes. It provides also increases on on-budget funds for effective mainstreaming within national planning processes, as well as coordination of a mix of on and off-budget funding.

#### **2.7.4 South West Indian Ocean Risk Assessment and Financing Initiative, 2017**

This project is a project aimed to collect existing and new hazard and exposure data, collated and shared risk profiles developed for among other island states, Zanzibar and assess regional and national catastrophe risk financing options and develop national disaster risk financing strategies and make operational institutional capacity building strategies. More broadly, this initiative offers support to long-term, economic and social development objectives including increase stability in the fiscal budget and preventing reversion to expensive/sub-optimal financing sources for disaster management. Key activities include fiscal risk profiling, evaluation of options for financing disaster losses and development of evidence-based national disaster risk financing strategies. The implementation will adopt Contingency budget, reserves and annual budget allocation layered strategy for financing disaster. Among the key outcomes, the initiative expects establishment of preliminary national disaster risk financing strategies based on assessment of financing gaps and costs and benefits of available financing options. The initiative is implemented with among other partners, the Ministries of Finance in the island states including Zanzibar.

### **2.8 Summary of the policy analysis**

Zanzibar recognizes the critical role that its natural resources and the inherent biodiversity

products and services that play in the national development. Zanzibar has thus put in place a national development vision, policies, strategies and institutions that provide for biodiversity management and financing entry point. This review indicates varied policy options and strategies that directly or indirectly favour biodiversity conservation in Zanzibar. The macro and sectoral policies also embrace Zanzibar's contribution to international biodiversity related conventions ratified by the URT. However, from the policy analysis, there is obvious absence of clear and specific policy provisions and strategies in most sectors with respect to biodiversity conservation. Even in the natural resources related Ministries, Departments and Agencies (MDAs) such as forest, marine and coastal, biodiversity has not specifically been amplified. In most aspects, biodiversity is embedded as part of environmental and natural resources interventions or overall ecosystems management. Downstream in the Regional Secretariats (RSs) and LGAs, biodiversity is rarely prioritized, planned or budgeted in the absence of an over-arching Biodiversity Strategy and Sector specific policy directions. The Planning and Budget guidelines issued by the Ministry responsible for Finance and Planning require that annual plans and budgets are based on national and sector priorities and therefore MDAs and LGAs are expected to allocate resources to strategic and core/priority areas in which case, specific biodiversity intervention do not feature. The plans analysed indicate that, biodiversity has been reactively integrated into, plans and programmes and therefore implemented with varying scales in the annual plans. Formulation of and sector specific policy directives which address biodiversity issues across the board will be a more practical approach that would ensure integration of biodiversity in national planning.

## 3. BIODIVERSITY TRENDS, DRIVERS AND SECTORAL LINKAGES

### 3.1 Biodiversity Trends in Zanzibar

#### 3.1.1 Overview of Biodiversity Status in Zanzibar

The United Republic of Tanzania covers a total of 945,800 km<sup>2</sup> of land and water covering Zanzibar that consists of the islands of Unguja and Pemba (surface area of 2,654 km<sup>2</sup>) and Tanzania Mainland (942,600 km<sup>2</sup>). Three broad categories of biodiversity exist in Zanzibar that include coastal forests, mangroves, coral reefs and seagrass beds that harbour important biodiversity and high endemism. Table 2 summarizes Zanzibar's biodiversity significance.

#### Box 5: Biodiversity resources

- Aquatic: Mainly marine and coastal wetlands with seagrass beds, seaweeds, coral reefs, salt and mud flats, mangrove swamps, estuarine and deltaic environments
- Terrestrial: Mainly forests and wildlife species including birds mainly in the IBAs
- Agrobiodiversity: Unique crops mainly the spices and fruits

**Table 2: Biodiversity significance in Zanzibar**

Biodiversity Category	Significance
Seagrass	Tanzania has 10 out of the 60 species of seagrass worldwide mainly in the Zanzibar coast.
Coral reefs	Zanzibar has pristine coral reef ecosystem with about 150 different coral species spanning almost the entire Zanzibar coast and with 90% of all coral species recorded in East Africa serving as home for over 350 fish species. Corals reefs harbour a variety of biodiversity forming the colourful underwater gardens and diverse productive ecosystems, providing food and shelter to fish, crabs and lobsters and provides natural barrier against waves and storms. Has recorded significant coral recovery with reduction in coral bleaching and reef fish abundance.
Marine species	The marine and its fisheries sub sector contributes about 2.5 percent of GDP. The entire fishing grounds are about 4,000 square kilometres for Unguja and 2,720 square kilometres for Pemba. The open sea provides a transition for nutrients and nourishment for a wide diversity of reef, sardines and other small pelagic fish that are commercially important for local fishermen and coastal community livelihoods. Over 90 percent of the fisheries production in Zanzibar is artisanal conducted in the shallow waters. Zanzibar hosts numerous Sea turtles, marine mammal species such as whales, dugongs and a habitat for resident population of Bottlenose and Humpback dolphins. These species are an important part of the balanced ecosystem and tourist attractions. In Zanzibar, other ecosystem services from submarine resources include Carbon sequestration and storage, food provision for marine organisms, genetic resources, regulating the ecosystem through waste absorption and detoxification, nutrient cycling and water circulation and exchange in terms of currents, such as up-and down-welling.
Mangroves	Zanzibar has 10 different mangrove species occupying extensive coastal areas of both Islands of Unguja and Pemba covering about 6,000ha in Unguja and 12,000 ha in Pemba Island. <i>Rhizophora mucronata</i> is the dominant mangrove species in Zanzibar, with a large percentage occurring in Pemba Island. <i>Avicenia marina</i> occurs on both Pemba and Unguja island. Some other species such as <i>Ceriops tagal</i> and <i>Bruguiera gymnorhiza</i> occur more on Unguja island.

<sup>12</sup> Zanzibar Investment Policy 2007

<sup>13</sup> Tanzania Environmental Threats and Opportunities Assessment, United States Agency for international Development (USAID), November 2012

Protected areas and endemic species	Zanzibar has critical global sites that include the Jozani – Chwaka Bay National Park Forest Reserve, established as National Park in 2004 and a UNESCO Man and Biosphere Reserve since 2016. The Jozani Forest and Chwaka Bay National Park and Ras Kiuyu Forest Reserve in Pemba also harbour species of IUCN concern included in the IUCN Red Data Book.
	Zanzibar is an Important Bird Area (IBA) that attract large numbers of Terek Sandpipers, Crab Plovers and Roseate Terns and provides for feeding ground to Greater Sand Plovers, Crab Plovers and Saunder’s Terns. Main species of IUCN concern include the Near threatened <i>Tauraco fischcheri zanzibaricus</i> and <i>Terpsiphone viridis ungujaensis</i> which are endemic subspecies in Unguja. There is also the vulnerable endemic <i>Otus pembraensis</i> endemic in Pemba. These species are also part of the BirdLife International list of species. Zanzibar also boasts of its endemic, Zanzibar red colobus ( <i>Procolobus kirkii</i> ).

### 3.1.2 Positive Biodiversity Trends

The underlying positive biodiversity trends in Zanzibar are associated with socio-economic development, management practices and institutional developments. The NBSAP notes that Tanzania hosts vast terrestrial, coastal and

marine ecosystems and biodiversity is influenced predominantly by anthropogenic activities, physical features and climate change. Based on various national reports and assessments, biodiversity trends, Zanzibar has recorded significant positive biodiversity trends as summarized in Table 3.

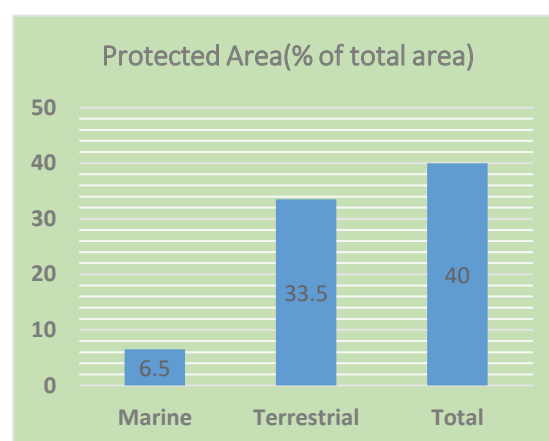
**Table 3: Biodiversity Trends based on Impact/Dependence**

Priority area	Priority trends	Sampled Impacts on achieving biodiversity and sustainable development goals
Conservation importance	3	<ul style="list-style-type: none"> <li>Increased area under protection with initiatives on protected areas establishment and restoration including MPAs; seasonal fishing zones/areas, terrestrial parks, reserves and CoFMAs).</li> <li>Flagship species conservation and protection both endemic and threatened species such as the endemic, Zanzibar red colobus (<i>Procolobus kirkii</i>).</li> <li>Ecosystems conservation such as coral reefs and landscapes including parks and reserves.</li> </ul>
Economic value	2	<ul style="list-style-type: none"> <li>Contribution to GDP through biodiversity related investments, revenues from user fees from parks, and employment created from the tourism value chain.</li> <li>Opportunity costs including safeguards on pollution/environmental management charges.</li> <li>Biodiversity related income from agriculture i.e. organic farming.</li> </ul>
Social value	2	<ul style="list-style-type: none"> <li>Access and sharing of benefits i.e. empowerment of local communities through community-based co-management arrangements Zanzibar now having 80 CoFMAs established with revenues sharing options.</li> <li>Diversification of livelihoods and incomes from IGAs such as seaweed farming, ecotourism and beekeeping.</li> </ul>
Political importance	3	<ul style="list-style-type: none"> <li>Vibrant policy development, planning and financing i.e. mainstreaming of biodiversity conservation in policies, legal frameworks and strategies (Vision 2050, Zanzibar Blue Economy, the planned Zanzibar Biodiversity Conservation Strategy and Action Plan and natural resources sector policies.</li> <li>Development of institutions charged with biodiversity related management responsibilities.</li> <li>Openness and all -inclusive participatory structures and practices.</li> </ul>

<sup>14</sup> The ranking was based on the direct contribution to conservation, with Score on a 3-scale level: 1= Low, 2 = Medium, 3= High)

Tanzania has recorded significant advancement in protecting key ecosystems and biodiversity at levels that surpass the 2020 Aichi Targets. It has set aside about 40% of the its total area (6.5% of marine and 33.5% of terrestrial) under protection (Table 5). This progress is due to policies, legislations and Strategies put in place for conservation of natural resources and ecosystems that harbour biodiversity.

The interaction of various sectors in biodiversity related conservation has contributed to related positive impacts such as promotion of sustainable forest, marine and agriculture practices and financing of biodiversity related conservation initiatives through national budgets. Table 4



**Figure 4: Protected Areas**

provides and analysis of the sectoral interactions and related biodiversity conservation impacts.

**Table 4: Summary of Economic Sector's impact on biodiversity**

Economic Sector	Interaction	Impact in relation to Biodiversity conservation
Agriculture	<ul style="list-style-type: none"> <li>Promoting sustainable agriculture practices</li> </ul>	<ul style="list-style-type: none"> <li>Improved implementation of strategies, programmes and projects on sustainable agriculture such as organic farming</li> <li>Coordinated agriculture research and technology development that improve the crops value chain and contribute to biodiversity conservation</li> <li>Implementation of sustainable agriculture livelihood opportunities for local people such as seaweed, spices and horticulture</li> <li>Development and promotion of "conservation agriculture," including intercropping with coconut, mango and other fruits and spice trees, agroforestry and soil fertility conservation techniques to minimize biodiversity degradation/loss</li> <li>Reduction of incentives (loans, subsidies, etc.) in favour of high value crops and commercial varieties and promotion of traditional varieties</li> <li>Intensification of smallholder production and improvement of crop value chain to reduce incentives for expansion of fields into biodiversity rich ecosystems such as forests and wetlands</li> <li>Establish support in agrobiodiversity and sustainable agriculture practices that mainstream biodiversity</li> <li>Support indigenous Plant Genetic Resources</li> </ul>
Energy	<ul style="list-style-type: none"> <li>Development and promotion of sustainable renewable energy resources</li> </ul>	<ul style="list-style-type: none"> <li>Rationalization of power tariffs to reduce dependence on wood as the main source of household energy</li> <li>Provision of cheap alternative and renewable sources of energy such as solar and wind</li> <li>Development and promotion of energy saving technologies to reduce the use of fuelwood</li> </ul>
Environment	<ul style="list-style-type: none"> <li>Oversight and coordination of environmental management and climate change matters</li> </ul>	<ul style="list-style-type: none"> <li>Improved implementation of the biodiversity through development of policies, strategies (Biodiversity Conservation Strategic and Action), programmes, plans and projects</li> <li>Increased enforcement of regulations with respect to Environmental Act including the Environmental Impact Assessment</li> <li>Enhanced fundraising and access to external financing to facilitate implementation of biodiversity related national strategies and plans</li> </ul>

Economic Sector	Interaction	Impact in relation to Biodiversity conservation
Finance and Planning	<ul style="list-style-type: none"> <li>• Overall financial resources mobilization and management including budget allocations based on national priorities through Annual Development Plans and Budgets</li> <li>• Policy and legal framework development on revenues collection and accounting</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritization of biodiversity in macro policies and mainstreaming into national and local planning processes (National Development Vision 2050, ZSGRP III, Zanzibar Blue Economy Policy).</li> <li>• Improved access to funding for biodiversity financing (based on biodiversity priorities established in the national plans and budgets, bilateral and multilateral) and access to Foreign Direct Investments-FDIs</li> <li>• Increased awareness on the value of biodiversity in the national development.</li> <li>• Financial Policy provisions and incentives (revenues and taxes) in favour of biodiversity conservation.</li> <li>• Establishment of mechanisms for retention and re-investment of revenues in biodiversity conservation.</li> </ul>
Fisheries and Mariculture	<ul style="list-style-type: none"> <li>• Facilitating sustainable fisheries and mariculture management including policy development, regulation and protection of fragile marine ecosystems and endangered species</li> </ul>	<ul style="list-style-type: none"> <li>• Improved mechanisms for fisheries and mariculture management (policies, regulations and strategies).</li> <li>• Enhanced coastal and marine resources management based on sustainable utilization of natural resources, better management of mariculture activities (Blue Biotope), control of land-based sources of pollution in coastal/ marine areas.</li> <li>• Improved conservation of marine protected areas and ecosystems.</li> <li>• Integrated coastal planning and zoning to control the unregulated development of beach hotels, jetties, and other infrastructure.</li> <li>• Implementation of Marine Spatial Planning.</li> <li>• Coordination in maritime safety and security including biodiversity connectivity in the EEZ and the ABNJ zones.</li> </ul>
Seaweed Industry	<ul style="list-style-type: none"> <li>• Facilitating more research, capacity building, innovation and technology transfer, entrepreneurship and production, etc</li> </ul>	<ul style="list-style-type: none"> <li>• Enhanced coastal and marine resources management based on sustainable utilization of natural resources and control of land-based sources of pollution in coastal/ marine areas.</li> <li>• Improved conservation of marine protected areas and ecosystems.</li> <li>• Protection of critical habitats such as mangroves, seagrass and coral reefs</li> <li>• Integrated coastal zone management planning and zoning to control the unregulated exploitation of the intertidal areas.</li> </ul>
Oil and Gas Development	<ul style="list-style-type: none"> <li>• Sustainable exploration of the oil and gas in the offshore areas including in territorial and EEZ waters</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of Marine Spatial Planning and development of ICZM zoning activities.</li> <li>• Protection of critical habitats such as mangroves, coral reefs, seagrass, etc.</li> <li>• Conservation of hotspots of biodiversity connectivity between the ABNJ and EEZ zones.</li> </ul>
Forestry and Non-renewable Natural Resources	<ul style="list-style-type: none"> <li>• Sustainable forest management both terrestrial and coastal mangroves that harbour biodiversity including wildlife and birds</li> </ul>	<ul style="list-style-type: none"> <li>• Improved conservation of core protected areas (reserves and parks)</li> <li>• Enhanced Community Forest Management Areas in buffer and/or corridor areas and access to benefits sharing</li> <li>• Increased Policy development and biodiversity financing through access to national and external resources.</li> <li>• Improved capacities of communities on sustainable utilization (exploitation of forestry resources through policy reforms, advocacy, trainings and awareness).</li> <li>• Promoted planting of indigenous species and insitu conservation.</li> </ul>



Economic Sector	Interaction	Impact in relation to Biodiversity conservation
Lands	<ul style="list-style-type: none"> <li>• Development of policies, regulations, institutions, strategies and plans related to land-use which impact biodiversity</li> <li>• Sustainable/integrated land use management</li> </ul>	<ul style="list-style-type: none"> <li>• Improved intersectoral policies harmonization to internalise biodiversity conservation in land uses</li> <li>• Harmonization of land development subsidies that lead to unsustainable land uses and biodiversity loss.</li> <li>• Integrated land use planning promoted to avoid conflicting land uses in fragile ecosystems.</li> <li>• Supporting landscape scale planning to maintain corridors and dispersal areas for wildlife</li> </ul>
Tourism	<ul style="list-style-type: none"> <li>• Oversight and coordination of sustainable tourism development</li> <li>• Preservation of fragile and pristine terrestrial, coastal and marine environment as a cornerstone for tourism in Zanzibar</li> </ul>	<ul style="list-style-type: none"> <li>• Improved policy development and enforcement of regulations on environmental compliance in tourism-related enterprises/investments.</li> <li>• Enforcement and regulation of biodiversity conservation in tourism related developments.</li> <li>• Enhanced partnership with government institutions in addressing among other issues, fees, taxes and levies to reinvest in the sector.</li> <li>• Improved policy development including Public Private Partnerships in tourism development.</li> <li>• Implementation of integrated coastal zone management plans.</li> <li>• Improved protection of nesting beaches used by specific species such as sea turtles.</li> <li>• Improved capacity and compliance on dumping of solid waste/wastewater from tourist facilities.</li> </ul>
Water Resources	<ul style="list-style-type: none"> <li>• Water resources management including catchment areas and wetlands</li> </ul>	<ul style="list-style-type: none"> <li>• Increased awareness on the value and management of water resources as critical ecosystem services.</li> <li>• Capacity to monitor and enforce water user permits.</li> <li>• Prevention /reduction of pollution and degradation of biodiversity in catchments/wetlands.</li> <li>• Increased groundwater recharge and prevention of saline intrusion in the coastal zone.</li> </ul>

### **3.1.3 Key policies, drivers and practices underwriting positive biodiversity trends in Zanzibar**

#### **Protected Areas Network**

Zanzibar has significantly increased its protected areas (PAs) network and areas under protection including mangrove forests classified as forest reserves and the Marine Conservation Areas (MCAs) that run under Co-Management approaches. The MCAs provide for the local communities to benefit from the resources with specified restricted economic activities in some locations in these MCAs and also do include Controlled Areas with seasonal closures demarcated to control fisheries and marine harvest and protect the reef negative exploitation. Zanzibar has one National Park, nine Forest Reserves and

six marine protected areas. Conservation and management of forests and marine resources has strongly improved, with 75 per cent of mangrove systems (16,500 ha) now under effective and sustainable management. High biodiversity values of both fauna and flora are found in these protected forests ecosystems, characterizing the Zanzibar's natural and cultural heritage status for tourism. Below are the marine and terrestrial protected areas among the tourism destinations in Zanzibar (Tables 5 & 6). In addition, 75,000 ha of lands in Zanzibar are under Community Forest Management Agreements (CoFMAs) through which communities participate in biodiversity conservation while generating income through tourism and other conservation friendly income generating initiatives. Efforts to enhance livelihoods by promoting community-centred



initiatives that support effective co-management of their habitats, restoration and rehabilitation of degraded landscapes and sustainable local income generation have emerged as essential natural resources management option. CoFMAs provide an important opportunity to engage more communities in the structured management

of fragile forest habitats, however, they are insufficiently capacitated to be used to their full potential CoFMAs are however, challenged by inadequate finance for conservation and development of viable alternative livelihood options.

**Table 5: Marine Protected Areas**

Name of the MCA	Declaration date	Area covered in km <sup>2</sup>	Status	Management Plan
Menai Bay Conservation Area (MBCA)	1997	717.5	Public	GMP developed in 2010, reviewed in 2012 and due for update in 2018-2019
Mnemba – Chwaka Bay (MIMCA)	2002	337.3	Public	GMP established in 2005 and finalized in 2010
Pemba Channel Conservation Area (PECCA)	2005	825.8	Public	GMP developed in 2010 and was due for review in 2018-2019
Chumbe Island Coral Park Sanctuary (CHICOP)	1994	0.55	Private	Has a current Management Plan (2017-2027)
Tumbatu Marine Conservation Area (TUMCA)	2015	162.9	Public	The First Management Plan was due to be developed in 2018-2019
Changuu – Bakwe Island Marine Conservation Area (CHABAMCA)	2015	118.2	Public	its First Management Plan was due for development in 2018-2019
<b>Total</b>		<b>Approx. 2100</b>		

Source: IUCN, 2020

**Table 6: Terrestrial Protected Areas**

Name	Area	Location
<b>National parks</b>		
Jozani-Chwaka Bay National Park	6,434 ha	Unguja
<b>Forest reserves</b>		
Jambiani-Muyuni Forest Reserve	4,212 ha	Unguja
Kichwele Forest Reserve	637 ha	Unguja
Kiwengwa-Pongwe Forest Reserve	3,040 ha	Unguja
Malilini Forest Reserve	406 ha	Pemba
Masingini Forest Reserve	566 ha	Unguja
Msitu Mkuu Forest Reserve	180 ha	Pemba
Ngezi-Vumawimbi Nature Reserve	2,900 ha	Pemba
Ras Kiuyu Forest Reserve	270 ha	Pemba
Ufufuma – Pongwe Corridor Forest Reserve	1,988 ha	Unguja
<b>Government forest plantations</b>		
Chaani-Masingini Forest Plantation	420 ha	Unguja

<sup>15</sup> Zanzibar Strategy for Growth and Reduction of Poverty III (MKUZA III), 2016 - 2020

Name	Area	Location
Dunga-Jendele Forest Plantation	887 ha	Unguja
Kibele Forest Plantation	2,929 ha	Unguja
Maziwang'ombe Forest Plantation	100 ha	Pemba
Rubber Plantations	633 ha	Pemba
<b>Mangroves</b>		
Mangrove Forest Reserves	16,489 ha	Unguja/Pemba
<b>Community managed areas</b>		
Areas under CoFMAs	75,000 ha	Unguja/Pemba

Source: IUCN, 2020

### **Local communities' participation**

There has been an increased participation and involvement of local communities in natural resources management (NRM) including forests in form of CoFMAs, fisheries, marine, fishing quotas and closure seasons with incentives related to revenue sharing programmes. There are over 80 CoFMAs established. The institutional provisions for co-management in fisheries include Fisheries Strategy (2014) that establish participatory fisheries management structures including local level fisheries management committees (Shehia Fishermen's Committee). The Fisheries Policy (Draft 2014) also sets ground for implementation of Integrated Coastal Zone Management (ICZM) for coordinated fisheries management between various sectors.

### **Alternative income generating activities**

Zanzibar promotes income generating activities (IGAs) and environmentally friendly products – e.g. seaweed farming a major activity for women, ecotourism in mangrove habitats, dolphin watching, snorkelling and diving, canoe trips, mangrove walks and cultural attractions. Zanzibar has also initiated introduction and promotion of alternative energy sources such as solar and energy saving stoves that reduce use of fuelwood that contributes to forests degradation.

### **Financing mechanism for conservation**

Zanzibar has developed some ring-fenced funds and financing mechanism for conservation including the Climate Change Financing Mechanism established for coordinated fundraising and financing of the Climate Change Strategy in Zanzibar. There has also been a wide

range of conservation initiatives and interested partners including NGOs and Development Partners providing financial resources towards biodiversity conservation.

**Education and awareness:** Improvement of environmental education and awareness including promotion of sustainable tourism.

### **3.1.4 Negative Biodiversity Trends**

Tanzania is among 15 countries registering the highest number of threatened species as a result of increased ecosystem-wide deterioration, habitat fragmentation and degradation, and climate change. Trends in Zanzibar show that biodiversity has been on the decline across the Island. The underlying negative biodiversity trends in Zanzibar are associated with population growth, urban sprawling, land use conversion pressure, failure of conservation management measures, inadequate levels of public awareness on the biodiversity connection, erosion of traditional knowledge and lack of diversified economic and livelihood initiatives. Tanzania hosts vast terrestrial, coastal and marine ecosystems and biodiversity is influenced predominantly by anthropogenic activities, physical features and climate change. The ecosystems of Zanzibar are specifically under pressure resulting from a combination of factors, including overexploitation and limited income generation activities for communities. Raising land requirements for agriculture and infrastructure development contributing to habitat fragmentation and loss. Also, Invasive alien species have led to competition in fragile ecosystems while inadequate policy, legal and institutional capacities have limited conservation and management interventions.

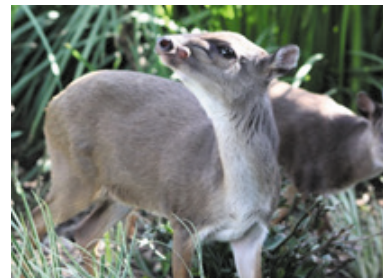
<sup>16</sup> National Biodiversity Strategy and Action Plan

Recently, Zanzibar has embarked on oil and gas exploration activities including carrying out Seismic Surveys. Key biodiversity impacts from the offshore exercise usually include disruption of the diving areas, small scale artisanal fishery sites; and restrictions and controlled access to some fishery banks falling within the seismic survey pathways.

Some of the endangered species include the Ader's duiker (*Cephalophus Adersi*), a small antelope in Zanzibar and one of the flagship species for Africa. It is highly threatened by over-hunting, habitats destruction and fragmentation attributed to expansion of agriculture and over-harvesting of non-timber forest products (NTFP). Consequently, the species is under IUCN category as critically endangered species. In 1999 its population was estimated to be 600±45 individuals on Unguja Island (Mwinyi *et al.*, 2012). It has been ranked as one of the rarest species of the small antelopes in the world (*Ibid*).



found in the coral thickets and mangrove swamps of Uzi Island 10 km to the south-west, and small populations are found on Pemba island (HIMA, 2014, RGZ, 2002). They are also found in the eastern coast from Kiwengwa in the north to Mnyambiji in the south. They had been translocated to Masingini Forest Reserve (56 individuals) and Ngezi Forest Reserve (14) on Pemba Island. They threatened by habitats fragmentation especially agriculture extension, timber extraction and charcoal production. The threats have caused it be under IUCN category as endangered species.



Blue duiker (*Cephalophus monticola sundevalli*) is endemic on Pemba Island mainly in Ngezi-Vumawimbi

Nature Reserve and Msitu Mkuu Forest Reserves. They are also found in Vitongoji and Kangagani forest areas. It inhabits in coral rag forests. Habitats loss and fragmentation, deforestation, degradation and shifting cultivation associated with slash and burn are the main threats to the animal in the remaining forest ecosystem of Zanzibar. Other threatened and endemic species in Zanzibar are summarized in Table 7.

The red colobus monkey (*Procolobus kirkii*), Suni (*Neotragus moschatus moschatus*) and Blue duiker (*Cephalophus monticola sundevalli*), (Wildlife Conservation Society, 2009). The red colobus monkey (*Procolobus kirkii*) is endemic



and flagship species in Zanzibar. Only about 5000 individuals are remaining on Unguja Island in Zanzibar. About 2000

are mainly found in the south-eastern part of the Island in Jozani-Chwaka Bay National Park, its surrounding community forests adjacent to agricultural areas to the south. Some are

Endemic marine fish species found exclusively in Tanzania including Zanzibar marine areas based on the FishBase (2004) taxonomy include the *Amblyeleotris delicatulus* (Gobiidae), *Priolepis anthioides* (Gobiidae), *Acroteriobatus zanzibarensis* (Zanzibar Guitarfish), *Bulbonaricus brucei* (Syngnathidae), *Owstonia lepiota* (Cepolidae), *Cirrhilabrus wakanda* (Vibranium Fairy Wrasse), *Malthopsis bradburyae* (Bradbury's Triangular Batfish), *Pempheris leioplepis* (Smoothscale Sweeper), *Pempheris smithorum* (Chumbe Sweeper) and *Pliotrema annae* (Anna's Sixgill Sawshark).

**Table 7: Endemic and threatened animal species in Zanzibar**

Common Name	Scientific Name	Area of Endemism	IUCN Red List Status
Mammals			
Red colobus monkey	<i>Procolobus kirkii</i>	Endemic - Unguja	Endangered
Heart-nosed Big-eared Bat	<i>Cardioderma cor</i>	Endemic in Unguja	Threatened
Decken's Horse-shoe Bat	<i>Rhinolophus deckeni</i>	Endemic in Unguja	Threatened
Zanzibar Eastern tree hyrax	<i>Dendrohyrax validus neumanni</i>	Endemic subspecies - Unguja	Near Threatened
Pemba flying fox	<i>Pteropus voeltzkowi</i>	Endemic - Pemba	Vulnerable
Zanzibar leopard <sup>1</sup>	<i>Panthera pardus adersi</i>	Endemic subspecies - Unguja	Vulnerable
Pemba blue duiker	<i>Cephalophus monticola pembae</i>	Endemic subspecies - Pemba	Least Concern
Black and rufous elephant shrew	<i>Rhynchocyon petersi</i>	Endemic - Unguja	Least Concern
Zanzibar slender mongoose	<i>Herpestes sanguineus rufescens</i>	Endemic subspecies	Least Concern
Zanzibar bushy tailed mongoose	<i>Bdeogale crassicauda tenuis</i>	Endemic subspecies - Unguja	Least Concern
Zanzibar servaline genet	<i>Genetta servalina archeri</i>	Endemic subspecies – Unguja	Least Concern
Reptiles			
Pemba day gecko	<i>Phelsuma abbotti</i>	Endemic - Pemba	Least Concern
Pemba worm snake	<i>Leptotyphlops pembae</i>	Endemic - Pemba	Least Concern
Pemba island writhing skink	<i>Lygosoma pembanum</i>	Endemic - Pemba	Least Concern
Pemba island skink	<i>Mochlus pembanum</i>	Endemic subspecies - Pemba	Least Concern
Pemba marsh snake	<i>Natriciteres variegata pembanum</i>	Endemic subspecies - Pemba	Least Concern
Pemba wolf snake	<i>Lycophidion capense pembanum</i>	Endemic subspecies- Pemba	Data Deficient
Amphibians			
Jozani frog	<i>Kassina jozani</i>	Endemic - Unguja	Endangered
Pakenham's river frog	<i>Phrynobatrachus pakenhami</i>	Endemic - Pemba	Endangered
Birds			
Zanzibar fishers turaco	<i>Tauraco fischcheri zanzibaricus</i>	Endemic subspecies - Unguja	Near Threatened
African paradise flycatcher	<i>Terpsiphone viridis ungujaensis</i>	Endemic subspecies - Unguja	Near Threatened
Pemba scops-owl	<i>Otus pembaensis</i>	Endemic - Pemba	Vulnerable
Pemba white-eye	<i>Zosterops vaughani</i>	Endemic - Pemba	Least Concern
Pemba sunbird	<i>Nectarinia pembae</i>	Endemic - Pemba	Least Concern
Pemba African goshawk	<i>Accipiter tachiro pembaensis</i>	Endemic - Pemba	Least Concern
Pemba green-pigeon	<i>Treron australis pembanis</i>	Endemic subspecies - Pemba	Least Concern
Dickinson's Kestrel	<i>Falco dickinsoni</i> *	Endemic in Pemba	Least Concern

Source: HIMA (2014); and [www.iucnredlist.org](http://www.iucnredlist.org)\*

Biodiversity in Zanzibar also include many other animal species of local and international importance that are of potential for generating revenues through tourism. There are three species of galagos; the Lesser bushbaby (*Galago senegalensis*), Zanzibar galago (*Galagoides zanzibaricus*) and Greater galago (*Otolemur garnettii*). There is also Javan Civet (*Viverricula indica*), an exotic species introduced to Pemba and Unguja islands which coexist with the African civet (*Viverra civetta*). A high diversity of small mammals, particularly shrews, occurs on the islands (2 genera and 4 species) including the African Giant Shrew (*Crocidura olivieri*), Zanzibar Pygmy Shrew (*Crocidura fuscomurina*), larger Savanna Shrew (*Crocidura varia*), Indian Musk Shrew (*Suncus murinus*), elephant shrew (*Petrodomus tetradactylus*) and Black and Rufous Elephant Shrew (*Rhynchocyon petersi adersi*). Two species of squirrels also occur in Zanzibar, the Red-legged Sun Squirrel (*Heliosciurus rufobrachium*) and the Red Bush Squirrel (*Paraxerus palliatus*). There are more than five species of rodents in Zanzibar including the Giant rat (*Cricetomys gambianus*), the introduced House rat (*Rattus rattus*) and *Grammomys* sp. Two bat species are threatened, the Heart-nosed Big-eared Bat (*Cardioderma cor*) and Decken's Horse-shoe Bat (*Rhinolophus deckeni*).

### 3.2 Drivers of Change in Biodiversity

Zanzibar is among the few regions in East Africa that are endowed with high biodiversity in marine, coastal, mangroves and terrestrial ecosystems, partly attributed to the tropical climate. Tanzania's Fifth National Report on Implementation of its NBSAP (2014) submitted to the CBD notes overall threats on biodiversity as a result of a several drivers associated with anthropogenic activities. Ecosystems in Zanzibar are as well under pressure by a combination of factors, including deforestation and unsustainable land-use practices (Table 8), with the effects of environmental degradation being compounded by the impacts of climate change. Key direct threats to Zanzibar's biodiversity can be grouped in the following categories: i) habitat conversion, loss, degradation and fragmentation of natural ecosystems in terrestrial, freshwater and marine and coastal environments; ii) over-exploitation of natural resources including wildlife, forests and aquatic biodiversity; iii) invasive alien species in

terrestrial, freshwater and marine environments; iv) environmental pollution; and v) climate change around the direct threats. These main drivers are mainly caused by social; political, institutional or governance; and economic causes. These causes can further be distilled into the following intermediate causes: (i) inadequate integrated framework for natural resources management and land use planning, (ii) unharmonized laws and policies, (iii) inadequate capacity for enforcement of conservation laws, (iv) rapid population growth, and (v) limited sustainable livelihood opportunities for poor, rural, communities. These threats are analysed in Table 8 using the "Why" root causes analysis methodology.

Deforestation and habitat loss/degradation with for instance mangrove forests that inhabits high biodiversity in Unguja declined by 550 ha (9%) RGZ (2013) and only half of Zanzibar's mangroves can be considered undamaged. Mangroves and coastal forest loss are traditionally harvested for boat building, construction poles, lime burning and charcoal production. Fuel wood, charcoal and agricultural residues account for 90 percent of final energy consumption mostly extracted from woodland and ranked as the second driving factor on deforestation and forest degradation resulting to loss of forest biodiversity (Agriculture Policy 2003, HIMA, 2014).

Coral reefs are degraded while coral reefs cover has declined by 12-29%, having been attributed to the use of destructive fishing practices including trawling/ drag nets, dynamite fishing, use small mesh net sizes and other nets. Also, destructive fishing caused by increasing numbers of fishers and tourism development continues to dominate the situation.

Tourism development in the coastal areas is often done too close to the highwater mark, leading to beach erosion and pollution of the coastline with illegally dumping of waste and litter sewage from hotels and residential buildings associated with coral bleaching and associated loss of species. The government is also promoting exploration of oil and gas resources already with several seismic surveys conducted in the coastal and marine areas with the vision to include Zanzibar to the Oil and Gas economy. The process will encompass mitigation measures in relation to potential contamination of beaches and marine sanctuaries



that may contribute significantly to elimination of sensitive coral species.

Therefore, there is an increasing trend of human population against a limited/finite land base coupled with weak integration of biodiversity concerns in landscape planning /Land use plans. The population of Zanzibar was estimated to be 1,579,849 and a population density estimated at about 380 persons per square kilometre. As such Zanzibar stands as one of the most populated agricultural islands in the world with majority depending on natural resources mainly fisheries, forests and agriculture.

Another key factor is the inadequate institutional capacity, awareness and funding to enforce regulations, under-valuation of non-monetary biodiversity values which are considered as cross cutting drivers for ecosystems and biodiversity degradation and loss. Degradation from climate change resulting in sea level rise, saltwater intrusion and bleaching of coral reefs cause

significant coral mortality and the respective species in these ecosystems. Introductions of invasive alien species i.e. crown-of-thorn infestations have invaded the fragile ecosystems thus creating competition and endangering biodiversity. A study conducted by Self Hamad Khalfan in 2019 on the eastern bank of Wesha Bay coastline, in Pemba reported several cases related to organic pollutants originating from different sources in the coastal areas of Zanzibar. The main sources include human activities such as sea transportation, fuel-based power generation, tourism industry and accidental oil spills along the coast of the Zanzibar islands that have increased Persistent organic pollutant (POPs) emissions into the coastal environment. Wastes from household, agriculture pesticides contribute to waste discharges, surface runoff and aerial fallout with examples reported at Wesha Bay coastal environment that is rich in marine biodiversity in Pemba.



**Table 8: Main threats and drivers**

Threats	Level	Root Causes
Habitat conversion, loss, degradation and fragmentation of natural ecosystems in terrestrial, freshwater and marine and coastal environments	Very high	<ul style="list-style-type: none"> <li>• Unsustainable land-use practices including shifting-agriculture systems and land uses that inadequately integrate natural resources management in land use planning, resulting from unharmonized laws and policies</li> <li>• Forests clearing for expansion of agricultural lands and infrastructure development (tourism, energy and transport)</li> <li>• Inadequate capacity for enforcement of environmental and conservation laws and regulations</li> <li>• Increasing fuelwood energy demand triggered by unavailability and access to cheap alternative sources of household energy</li> <li>• High timber demand caused by high prices of imported alternative building materials</li> <li>• High human population growth and density</li> <li>• Limited resources allocated to the respective institutions in the annual budgets</li> </ul>
Over- exploitation of natural resources including wildlife, forests and aquatic resources	High	<ul style="list-style-type: none"> <li>• Overfishing caused by increasing numbers of fishers mostly in the nearshore water</li> <li>• Use of destructive fishing practices including trawling/ drag nets, dynamite fishing and use of small mesh nets sizes</li> <li>• Extraction for timber, building materials, fodder, firewood and charcoal production and tannins</li> <li>• Increasing fuelwood energy demand from unavailability and access to cheap alternative sources of household energy</li> <li>• High timber demand caused by high prices of alternative building materials</li> <li>• Clearing for aquaculture, seaweed farming and salt production</li> <li>• Rapid population growth and density around finite terrestrial and marine natural resources</li> <li>• Limited sustainable livelihood opportunities for poor rural communities that rely on natural resources for subsistence</li> <li>• Inadequate law enforcement caused by limited capacity in terms of staff and financial resources allocated in the sector budgets</li> </ul>
Pollution or contamination of natural habitats or species	Moderate	<ul style="list-style-type: none"> <li>• Inadequate land use planning</li> <li>• Sand and coral mining for construction</li> <li>• Inadequate capacity to implement and monitor Environmental Impact Assessments</li> </ul>
Climate change	Moderate	<ul style="list-style-type: none"> <li>• Climate variability and sea-level rise that increase vulnerability of coastal ecosystems</li> <li>• Inadequate monitoring to detect climate change and its ecological effects</li> <li>• Inadequate education and awareness for communities on climate change and adaptation strategies</li> </ul>
Invasive alien species in terrestrial, freshwater, marine ecosystems	Low	<ul style="list-style-type: none"> <li>• Limited awareness and information to informed decisions on invasive species management</li> <li>• Limited invasive species monitoring and control strategies</li> <li>• Limited resources allocated to research and develop plans to manage invasive species</li> </ul>

The threats and drivers/causes have been analysed in relation to respective ecosystems as summarized in Table 9.

**Table 9: Biodiversity Threats and Drivers analysis**

Ecosystem	Threat	
<b>Terrestrial</b>		
Forests	Loss, fragmentation and degradation from: <ul style="list-style-type: none"> <li>• agricultural expansion mainly subsistence smallholders - “slash and burn” and large-scale monoculture farming</li> <li>• firewood cutting charcoal production</li> <li>• illegal logging, firewood collection</li> <li>• mining (sand/coral stone)</li> <li>• infrastructure development</li> </ul>	<ul style="list-style-type: none"> <li>• Use of agricultural practices that do not maintain soil fertility</li> <li>• Lack of sustainable fuel wood and charcoal, and of alternative cooking fuels</li> <li>• Inadequate land use planning</li> <li>• Unclear, insecure, and/or overlapping land and resource tenure</li> <li>• Low capacity to monitor and enforce laws and regulations</li> <li>• Blockage or degradation of corridors</li> <li>• Inadequate resources for laws enforcement</li> </ul>
Mangroves	Degradation of mangrove forests and the associated ecosystems	<ul style="list-style-type: none"> <li>• Overharvesting of mangroves – both legal and illegal cutting</li> <li>• Expansion of rice cultivation in less saline mangrove areas</li> <li>• Pollution from pesticides that kill invertebrates and fish</li> <li>• Inadequate capacity for management agencies to enforce systems and regulations</li> <li>• Inadequate land use planning and monitoring</li> </ul>
<b>Fresh water</b>		
Wetland and rivers	Loss and degradation of catchments, wetlands and rivers leading to: <ul style="list-style-type: none"> <li>• reduced flow and changes in seasonal flow regimes</li> <li>• Loss of riparian vegetation, wetland/freshwater species</li> </ul>	<ul style="list-style-type: none"> <li>• Upstream water abstraction and forest degradation in upstream watersheds</li> <li>• Inadequate land use planning</li> <li>• Conversion of wetlands/riparian ecosystems to agricultural uses</li> <li>• Low capacity to monitor and enforce land and water resources management laws and regulations</li> <li>• Inadequate capacity to implement and monitor Environmental Impact Assessments</li> <li>• Lack of invasive species monitoring and control strategy</li> </ul>
<b>Coastal and marine</b>		
Coral Reefs	Loss, fragmentation and degradation of coral ecosystems	<ul style="list-style-type: none"> <li>• Overfishing of keystone reef species</li> <li>• Destructive fishing practices (e.g., dynamite, poison, small-mesh nets, beach seining)</li> <li>• Sedimentation and nutrient loading/pollution from onshore activities such as upstream agricultural practices that cause soil erosion</li> <li>• Inadequate sewage treatment from urban areas and coastal tourism infrastructure</li> <li>• Coral bleaching and damage from global climate change (sea warming)</li> <li>• Undefined/poorly defined marine resource tenure i.e. implementation of ICZM strategies</li> <li>• Inadequate capacity within marine resource management agencies to enforce respective systems (boats, fuel, patrol staff)</li> </ul>
Sea grass	Physical degradation from beach seining and bottom trawling for shrimp/prawns	<ul style="list-style-type: none"> <li>• Inadequate capacity within marine resource management agencies to enforce systems i.e. boats, fuel and patrol staff</li> </ul>

Ecosystem	Threat	
Beaches, dunes and nearshore marine ecosystems	Habitat degradation from beach hotel development	<ul style="list-style-type: none"> <li>• Insecure land tenure for traditional coastal communities</li> <li>• Inadequate land use planning and irregular allocation and development</li> <li>• Sand and coral mining for construction</li> <li>• Inadequate capacity to implement and monitor Environmental Impact Assessments</li> <li>• Overharvesting of tunas and other commercially valuable species and by-catch</li> <li>• Use of harmful fishing gear (e.g. beach seines, small-mesh nets) and practices (e.g. dynamite fishing)</li> <li>• Marine resource management agencies have limited capacity and enforcement systems (boats, fuel, patrol staff)</li> <li>• Unregulated commercial fishing by foreign fleets</li> </ul>

Box 6 summarises CBD 5th and 6th National Report Actions necessary with respect to the key Biodiversity Conservation Targets (i.e. Conservation, Access and benefits sharing and Sustainable use).

#### Box 6: Biodiversity Actions from the national CBD Report

##### Conservation

- Develop and strengthen sectoral and cross-sectoral institutional co-ordination for harmonization and mainstreaming of biodiversity concerns in planning and management
- Establish and promote research and development programs with a view to building the capacity to efficiently conserve and sustainable use the biodiversity resources
- Ensure fragile ecosystems such as dry lands, mountainous and wetland ecosystems have specific and well-tailored development programs
- Assess biodiversity base potential in marine and freshwaters to govern exploitation and avoid depletion of stocks
- Prevent and control illegal fishing practice through surveillance
- Improve land use planning in terrestrial and coastal areas
- Develop biodiversity and ecosystems conservation strategies
- Improve Climate information and adaptation mechanisms

##### Access and benefits sharing

- Improve community standard of living through equitable sharing of income generated from the sustainable utilization of biodiversity resources
- Adopt community participation approaches at all levels of planning, development and management of biological diversity
- Strengthen the capacity of local communities to manage PAs (Parks and reserves, COFMAs, MPAs, etc.), mainly forests and wildlife species including birds mainly in the IBAs

##### Sustainable use

- Integrate biodiversity conservation in national economic planning
- Facilitate sectoral coordination and application of integrated, harmonized and multi-sectoral approaches
- Facilitate implementation of Environmental Impact Assessment guidelines for both terrestrial and aquatic biodiversity
- Improve Land use planning
- Control illegal harvesting unique crops mainly the spices and fruits

## 4. THE BIODIVERSITY FINANCE LANDSCAPE

Zanzibar is endowed with diverse bio-diversity ecosystems. Human activities in sectors such as agriculture, tourism, fishing, and forestry utilize bio-diversity resources and hence bio-diversity conservation is directed towards activities in these sectors. This chapter describes the biodiversity finance landscape in Zanzibar by reviewing biodiversity finance streams from both public and private actors. The review draws from the sectors relevant to biodiversity conservation and management, identified public and private actors in these sectors and the different mechanisms that are used by these identified actors in financing biodiversity related expenditure systems.

### 4.1 Overview of the national budget process

#### 4.1.1 National and Local Governments Level Budgeting Process

Central and Local Government Authority (LGAs) plans and budgets serve as tools for implementing Government priorities. National and Local Government budgets constitute the principal biodiversity financing sources from the public sector. From the policy review, there is no integration or coordination of cross-sectoral obvious absence of clear policy provisions and strategies in most sectors with respect to biodiversity conservation. Even in the natural resources related Ministries, Departments and Agencies (MDAs) such as those related to environment, fisheries, forestry, water, energy, etc. there hasn't been a desired amplification of marine and coastal, biodiversity has not specifically been amplified as is in some aspects presented as part of environmental and natural resources interventions for overall terrestrial and marine ecosystems management.

Downstream at the Regional Secretariats (RSs) and LGAs, the focus is on ecosystem services and not on a strategic intervention towards biodiversity governance. Moreover, is rarely planned and budgeted in the absence of an over-arching Biodiversity Strategy and Sector specific policy directions. The Planning and Budget guidelines issued by the President's Office (Ministry of Finance and Planning) draw attention to MDAs and LGAs in preparing their annual plans and budgets and on allocation of resources to

strategic and core/priority areas. But these do not necessarily mean that they have to develop strategic policy frameworks on biodiversity conservation. These Guidelines have placed environmental matters under cross cutting issues. MDAs and LGAs are therefore left at liberty to plan and allocate resources for biodiversity when other priorities have been met. As such, biodiversity has been reactively integrated into some sector policies, plans and programmes and therefore inadequately prioritized and implemented with varying scales in the annual plans. Formulation of and sector specific policy directives which address biodiversity issues across the board will be a more practical approach that would ensure integration of biodiversity in national plans and budgets. The President's Office Finance and Planning (PO-F&P) and the First Vice President's Office is in this respect the main player both as BIOFIN Focal Point and as the key institutions that prepare, coordinate and implements and issue National Planning and Budget Guidelines with respect to annual plans and priorities for biodiversity conservation.

#### 4.1.2 Budgeting Steps/Process - Budget Formulation Framework and Calendar

Budgeting is the procedure of preparing estimates of revenue and expenditure on an annual basis and approved by the House of Representatives. In Zanzibar budgeting as a process involves steps (Figure 3) and interventions by a number of key actors and stakeholders. It entails domestic revenue mobilization, integrating Development Partners' finance into the budget frame, ensuring consistency and compliance to agreed resources and allocate public resources to strategic priorities.

The first step is preparation of Guidelines for Preparation of Annual Plan and Budget to guide MDAs, RSs and LGAs to prepare their Annual Plan in line with the Five-Year Development Plan requirements. The guidelines translate policies set in the Five-Year Development Plan; the Zanzibar Development Vision 2050, contribution to the SDGs via MKUZA-III and MKUZA IV now under preparation, addressing the Ruling Party Election Manifesto 2020 and Sector Policies and strategies.

It also involves preparation of the Guidelines Team, collection of the necessary data and information, consultation of key stakeholders (MDAs, LGAs, Development Partners) and undertaking Public Expenditure and Consultative Annual Reviews. It also entails resource allocation for MDAs and LGAs based on the institutional framework, responsibilities and key strategic priorities to be implemented in the Fiscal Year. The focus is increasingly on expanding Domestic revenue collection to facilitate implementation of priority programme and improving popular participation in local economic development. This is coupled with increased private sector participation in economic and social development, including Public Private Partnership (PPP). This step takes place in the first quarter of the Financial Year (FY) and is concluded around November.

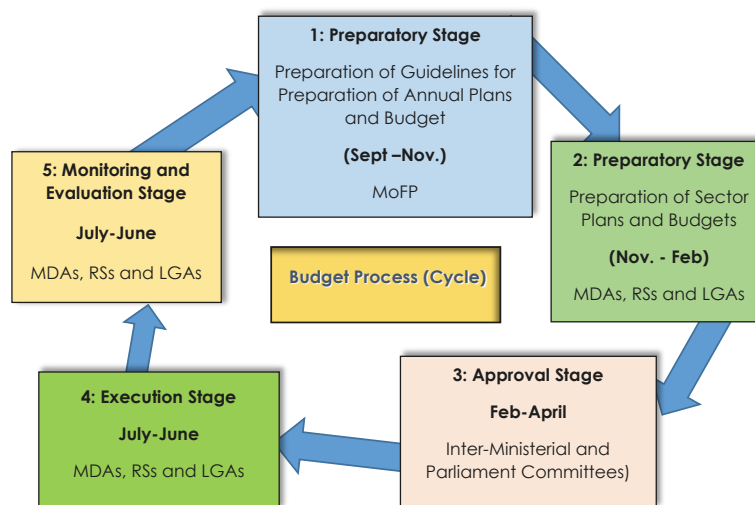
The second step is the preparation of Plans and Budgets for MDAs, RSs and LGAs based on the agreed priorities and resources allocated. For Sectors and MDAs, the plans are based on the respective sector policies, priority areas and strategies while for the LGAs the planning entails bottom up identification of priorities in line with

the national policies. The MDA and LGAs plans and budgets are thus scrutinized and consolidated by the respective Inter-Ministerial Teams led by the President's Office Finance and Planning (PO-F&P). This step is undertaken beginning mid second quarter and concluded in the third quarter of the FY.

The third step is the Budget approval which involves review by the respective House of Representatives' Standing Committees and finally tabled and proved by the House of Representatives.

The fourth step is the budget execution by MDAs, RSs and LGAs based on the approved plans and budgets in line with respective mandates. This runs throughout the FY.

The fifth and last step is to monitor and evaluate the plans and budgets in line with MDAs, RSs and LGAs mandates. The respective implementers do report using the M&E plan that follow the routine reporting arrangements as stipulated in the Medium-Term Strategic Planning and Budgeting Manual (MTSPBM).



**Figure 5: Planning and Budget Process**

Challenges for integrating biodiversity into the budgeting process i.e. coordinating and integrating biodiversity targets with national plans and targets

Zanzibar has seen an increasing challenge in sustainably managing her biodiversity owing to the increasing investment developments, dependence of communities on biodiversity resources and

services for livelihoods and subsistence incomes. Inadequate biodiversity conservation strategies mainly arising from limited integration of such strategies in sector plans and budget has resulted in limited budget allocation, disbursements and expenditures to match requirements. Capacity for biodiversity management mainly in fundraising including access to global funds augments the limited financial resources to adequately support



sector plans that normally constitute government budget support financing options.

Planning and budgeting processes using the Guidelines for Preparation of Annual Plan and Budget lack special instructions on biodiversity conservation while the LGAs planning process using the O&OD tool rarely prioritize biodiversity management as a priority in the LGA plans.

From the review there are no specific biodiversity standard budget (or cost) units and account codes, as such costs pertinent to costing biodiversity targets are built within related account codes. Biodiversity conservation in various plans are included as an indirect expenditure targeted to either overall environmental or natural resources management activities in terms of Protected

Areas Management, Expansion of Protected Areas, Landscape/seascape conservation, and Community Forest Management Areas (CoFMAs) including buffer zones.

#### 4.2 Supportive and harmful subsidies

This sub section provides a brief on the most prominent subsidies and incentives that have an impact on biodiversity (both positive and negative) - direct cash payments, relief from a tax burden, protection from competition, or other policies intended to reduce financial burden, and/or encourage an action. These subsidies/incentives are indicated in Table 10 with respective sectors where these subsidies apply and indicate respective beneficiaries.

**Table 10: Subsidies and Incentives identified under the main biodiversity management sector**

Sector	Identified Subsidies/Incentives	Direct and Potential biodiversity impacts
Tourism	<p>Subsidies and incentives to promote investments in hotels and resorts along the beach and in protected areas:</p> <ul style="list-style-type: none"> <li>• Provision of 99 years land lease for investors</li> <li>• Tax holidays for large tourist investments</li> <li>• Tax exemption on importation of equipment related to investments and operations in tourism</li> <li>• Provision for projects start-up before Environmental impact assessments (EIAs) are done to avoid delays in investments takeover.</li> </ul>	<ul style="list-style-type: none"> <li>• Destruction of biodiversity from large infrastructure development – housing and related utilities such as roads and power along the coasts including pristine areas that hold fragile ecosystems and biodiversity</li> <li>• Clearance of mangroves and other coastal forests</li> <li>• Limited integration of biodiversity mitigation plans in the respective investments</li> </ul>
Fisheries	<p>Subsidies on fishing equipment:</p> <ul style="list-style-type: none"> <li>• Boats which are bigger than 12 meters, are given incentives to encourage fishing in high waters.</li> <li>• Supply of facilities such as cold boxes and ice blocks to help small scale fishermen</li> </ul> <p>Subsidies to promote export of specific fish products:</p> <ul style="list-style-type: none"> <li>• Encouragement of export of high value marine products such as crabs, shell fish etc</li> </ul>	<ul style="list-style-type: none"> <li>• Increased access to fishing sites and fragile corals that are also used as breeding sites</li> <li>• Overfishing resulting from extended fishing time</li> <li>• Increased access to fishing sites and fragile corals that are also used as breeding sites</li> <li>• Overfishing resulting from extended fishing time</li> <li>• decline of marine biodiversity from increased fishing of the high value marine species thus reduction of such species</li> </ul>
	<p>Subsidies on promoting fish farming:</p> <ul style="list-style-type: none"> <li>• Provision for big investments in fish farming in the sea as well as cage fish farming in shallow waters</li> <li>• Establishment of pens for producing fish seedlings</li> <li>• Established centre supported by the government to support fish farming</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced fishing in the shallow water and coral reef</li> <li>• Availability of alternative fish sources to reduce overfishing</li> </ul>

Sector	Identified Subsidies/Incentives	Direct and Potential biodiversity impacts
	Subsidies to promote investments in the Zanzibar Blue Economy priorities: <ul style="list-style-type: none"> <li>• These are being developed by the newly established Ministry of Blue Economy and Fisheries.</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable management of the fisheries and marine resources and biodiversity</li> </ul>
Agriculture	Subsidies on agro-chemicals (fertilisers and pesticides) to increase production/ productivity: <ul style="list-style-type: none"> <li>• Subsidized organic farming</li> <li>• Government supported extension services</li> <li>• Farm subsidies to promote Climate Smart Agriculture</li> <li>• Free clove seedlings given to farmers to revive clove farming</li> </ul>	<ul style="list-style-type: none"> <li>• Increased conservation of the terrestrial biodiversity</li> </ul>
Forestry	Subsidies on supply of household energy sources <ul style="list-style-type: none"> <li>• Subsidized Liquefied petroleum gas (LPG)</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced deforestation from use of firewood and charcoal</li> </ul>
	Subsidies on promoting efficient energy technologies: <ul style="list-style-type: none"> <li>• Subsidized wood efficient stoves</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced deforestation from use of firewood and charcoal</li> </ul>
	Incentives on reforestation and establishment of plantations (tree seedlings etc): <ul style="list-style-type: none"> <li>• Free seedlings provided to encourage reforestation.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased forest cover and biodiversity</li> </ul>
	Subsidies on promotion of alternative Income Generating Activities to reduce pressure on forest resources: <ul style="list-style-type: none"> <li>• Promotion of IGA supported by government of projects</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced deforestation and biodiversity degradation for forest dependent communities</li> </ul>
	Incentives on promoting of CoFMAs - benefit sharing and forest conservation: <ul style="list-style-type: none"> <li>• Promotion of COFMAs</li> </ul>	<ul style="list-style-type: none"> <li>• Increased conservation of biodiversity in protected forests and forests in community land</li> </ul>
Mining, Energy,	Incentives on promoting sustainable mining, infrastructure and oil and gas development: <ul style="list-style-type: none"> <li>• Subsidized LPG to promote the use of efficient energy and efficient stoves implemented with support from the government</li> <li>• Compensation on open land for sand mining.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced deforestation and biodiversity degradation</li> <li>• Increased forest clearance to qualify for the extraction of sand</li> </ul>

### 4.3 Biodiversity-Based Revenues

There is wide range of biodiversity finance solutions that can be applied in Zanzibar. These solutions can draw financial resources either locally or internationally, using different financing instruments and delivery mechanisms. Box 3 provides a general list of biodiversity related mechanisms. This chapter describes these finance solutions. It also expounds on ways with which existing solutions can be enhanced

as well as exploring new mechanisms that can increase financial resources for Zanzibar. Biodiversity related revenues collected fall under different institutions including Department of Fisheries and Mariculture, Department of Marine Conservation Areas for MPAs, Zanzibar Environmental Management Authority (ZEMA) for EIA Fees and fines, Tourism Commission for tourism related revenues mainly in relation to entry into protected areas, forest revenues for harvest and use of forest products, among others.

Analysis of respective revenues collected, responsible institutions, and whether such revenues are re-invested in biodiversity management will be presented in detail under the BER Component. The biodiversity-related revenues constitute the main part of the BER. The review identifies sources and types of financial revenues through fees and taxes (both tax and non-tax revenues) generated from biodiversity and ecosystem services. It also identifies biodiversity-related revenues retained for management or conservation of biodiversity or used for other national priorities. In this review, the BER will present institutions and policies related to biodiversity revenues, and revenue sources that will inform potential finance solutions related to revenue generation or allocation. This will also assess sustainability of revenues generated through natural resources extraction and present recommendations on alternatives for sustainable use of natural resources.

#### Box 3: List of Current Biodiversity related financing

- a. RGoZ budget through National planning and budgeting based on national priorities in the FYDP
- b. DPs bilateral grant funding to RGoZ through budget support, sector budget support and direct projects funding based on Country Framework Agreements;
- c. Multilateral Funds (e.g. GEF, LDCF, Adaptation Fund, GCF, etc) based on Conventions that Tanzania is party to;
- d. DPs projects funding through NGOs and Civil Society;
- e. Grants and loans to private sector investments;
- f. GoT Special Funds (e.g. National Climate Change Financing Mechanism, Tourism Fund);
- g. Private sector CSR;
- h. Ring-fenced charges and taxes charged for re-investment based on respective laws i.e. Environmental law, Tourism Act etc

On institutional arrangements, some relevant solutions are summarized in Box 4.

#### Box 4: Options/Solutions for identified Challenges to Biodiversity financing

- a. Coordination between ministries to establish a multi-sectoral and integrated programme for implementation of the BIOFIN in priority landscapes and marine/seascapes.
- b. Ministry responsible for Finance and Planning to apply Planning and Budgeting tools for resource mobilization, and allocation to bio-financing.
- c. Sector Policy review to identify priority biodiversity strategies to be incorporated.

#### 4.4 Summary of Biodiversity Finance Solutions centred on the government and its agencies

Public sector institutions which include ministries, departments and agencies (MDAs) are a major source of biodiversity finance. There is a stream of cash flows related to biodiversity that is generated internally. These cash flows are from sectors such as tourism, forestry, fisheries, agriculture, products and specifications quality certifications, EIA & Environmental Audit works, natural resources and livestock. They are generated from levies, fees and charges that arise from exploitation and use of bio-diversity resources. Funds generated from fees, levies, and charges by MDAs are normally pooled at the government treasury with some exemption where specific institution such as the Tourism Commission that are allowed to retain revenues for operational and investment plans including the established Tourism Fund. The respective MDAs request and receive allocation of funds for bio-diversity related activities from the government treasury through annual plans and budgets. Other sources of finance directed to biodiversity come from international sources in the form of loans, grants or subsidies. These funds are received by the government through the ministry responsible for finance and are allocated to respective projects that are implemented by the MDAs and include the established National Climate Change Financing Mechanism. Following is a description of financing solutions from MDAs in different sectors related to biodiversity.

<sup>18</sup> RGZ (2018), Tourism Integrated Strategic Action Plan (TISAP)

<sup>19</sup> Fees established under these sectors based on the respective regulations are reviewed regularly

#### 4.4.1 Tourism

In recent years, the tourism sector has been the major contributor to the economy of Zanzibar. Zanzibar tourism offers different attractions such as nature tourism comprising of forests and marine parks; cultural and historical sites; sea, sun and sand; and events and sports. Zanzibar's tourism sector has grown rapidly in recent years, registering 13 percent year-on-year growth, on average, in international visitor numbers over the past four years. The number of international visitors has grown over the last 30 years, from about 18,000 in 1985 to 520,809 in 2016 . Currently, there are 15,000 people who are directly employed in the tourism sector, and it contributes towards 28% of Zanzibar's overall GDP. Planned developments in the sector for the next ten years are expected to increase the number of people employed in the sector to 40,000, and to increase the sector's contribution to GDP from 28% to 35%. The department of tourism in the Ministry of Tourism and Heritage is responsible for policy and regulations, while other aspects of tourism development such as destination marketing and tourism promotion are the responsibility of the Zanzibar Commission for Tourism (ZCT). Various fees are collected from tourism related activities. These fees include mooring fees, camping fees, filming and photography fees, entrance fees to protected and conservation areas, fees on international travel (air/cruise), license fees for tourism establishments etc . These fees are collected by Zanzibar Revenue Board, Zanzibar Commission for Tourism, and other public entities charged to manage tourism assets. The Commission is allowed to recapture a portion of the tourism generate revenue on submission of the budget for an annual plan of work to form a basis for setting a portion of the revenue for re-investment and growth of the industry. A formula is set for allocation of tourism taxes

and fees to other activities including tourism promotion, natural resource protection, village funds in destination areas, and/or infrastructure maintenance.

#### 4.4.2 Protected areas financing mechanisms

Entrance fee is the main funding mechanism for institutions managing Protected Areas. These areas are such as Chumbe island coral park, Mnemba island and Chwaka-Bay mangrove forest. Entrance fees differ from site to site. Fees collected are used for the management of the protected areas mainly for management and operational activities. These fees are reviewed from time to time in order to include varying costs of managing the protected areas. In most protected areas, revenues are shared with local communities living around the respective protected area. Such sharing is based on agreements signed between the respective Protected Area Management and the local communities adjacent to the protected areas both for development and social services provision.

#### 4.4.3 Tourism related taxes

Zanzibar tax systems contain tourism specific taxes. There are three different taxes on tourism related activities. These are hotel levy, restaurant levy and tour operator levy payments, respectively. The Levy is charged as follows: 15% of the charges for accommodation and 10% of the charges for other services . Hotel and restaurant levy are collected from all hotels and restaurants. There are direct links between development and operations of beach resorts and biodiversity, including the increased number of tourists in the islands which consequently increase pressure on biodiversity. Moreover, hotels and restaurant use more water compared to households. Hotels also produce more waste compared to households. Table 11 shows tourism related taxes collected for the past three years.

**Table 11: Tourism related taxes**

Levy	2017/2018	2018/2019	2019/2020
	Tshs		
Hotel Levy	27,122,625,000	40,785,705,000	44,945,913
Restaurant Levy	4,486,604	6,541,247,000	8,480,823
Tour Operators Levy	1,740,339	2,204,391,000	2,237,875

<sup>20</sup> Hotel Levy Act No. 1 OF 1995

#### 4.4.4 Forestry and marine

Zanzibar has declared significant protected areas (PAs) network, both terrestrial and marine covering about 19,430 km<sup>2</sup> of FRs and 2,100 km<sup>2</sup> of Marine Conservation Areas (MCAs). The respective laws establishing these PAs allow charging entrance fee which are basically retained and used for managing these Protected Areas. Entrance fees vary from site to site. These fees are reviewed from time to time in order to include varying costs of managing the protected areas. As such, these fees are an important finance solution

for these PAs.

Mangrove forests are utilized for different purposes. They are the main source of high-quality construction poles, fuel wood, and other wood products. The department of forestry collects fees for utilization of forests and the forest resources including timber, poles, plant crops or trees, use of the forest land to erect structures as well as revenues for sale of seedlings. Table 12 shows fees collected from forestry products for the past three years.

**Table 12: Fees collected from forest products**

Fees	2017/2018	2018/2019	2019/2020
	Tshs		
Fees for forestry products	440,206,000	236,507,000	286,130,000
Sale of seedlings	6,264,000	18,270,000	49,660,000

The Forest Act also provides for establishment of a Forestry Development Fund to be used for reforestation; extension services and research; loans and grants to persons or groups for plant trees or management of forests. The Fund draws its resources from private individuals, foundations, corporations and international organizations; appropriations by the Government and; funds collected as penalties, fees or royalties under the Act.

#### 4.4.5 Fisheries and Mariculture

Zanzibar is endowed with abundant fisheries resources. This sector provides employment to many people who are involved in small scale fishing, mariculture activities such as sea cucumber farming, crab fattening farming, octopus closure, fish ponds, etc. are key to Zanzibar's Blue Economy objectives to support the local communities and the poor. Another major associated activity under the thematic is the growing and harvesting of seaweeds. Anchovy market in Zanzibar is the largest emerging blue economy sector in the islands and requires a complex value addition process that involves proper drying, processing, packaging and selling the Anchovy to the local and regional markets. The main fees charged by the Fisheries Department include a fixed once off vessels registration fee, fisheries annual

license for artisanal vessel, sport fishing vessel and the EEZ vessel fees. The EEZ license fees are the largest being over 3 times the total revenue collected from the fisheries sector. Fishers also purchase licences annually from the Fisheries Department that vary depending on the size and propulsion of vessel.

There are some export fees charged by Department of Fisheries and Mariculture for the export of anchovy, crabs, sea cucumber, etc. Exporters pay royalty for exports of fisheries products calculated as 6% of value. The Deep-Sea Fishing Authority (DSFA) is responsible for sustainable fisheries and biodiversity management of the Exclusive Economic Zone (EEZ) of the Tanzanian waters. There are two legislative and regulatory instruments that guide deep sea fishing which include the licensing fees namely the Deep Sea Fishing Authority Act No. 17 of 2007 (Amendment) and Deep-Sea Fishing Authority Regulations of 2009 (Amendment) Regulations, 2016)). They are also companies that are doing deep sea fishing. The fisheries department collects fees from ocean resources and deep-sea fishing. The RGoZ has embarked on development of the Blue Economy that also addressed the fisheries sector. Taxes on fisheries products and fees for fishing licenses provide revenues that can be re-invested

<sup>21</sup> On record, in 2003 export royalties were the largest contributor from the fisheries sector, making up of over 70 percent of collected revenue



in the fisheries sector for biodiversity related conservation.

The agriculture sector in Zanzibar is dominated by small scale farmers who grow different crops. There are also small-scale farmers involved

in aquaculture-growing mainly seaweed. The department of agriculture collects fees from sale of paddy and horticultural products. Table 13 shows revenues collected from the sale of paddy and horticultural products.

**Table 13: Revenues collected from agricultural products**

Revenue source	2017/2018	2018/2019	2019/2020
	Tshs		
Sale of Paddy	5,650,000	8,000,000	10,000,000
Sale of Horticulture products	13,000,000	8,610,000	8,689,000

#### 4.4.6 Environment

The Zanzibar Environmental Management Act No. 3 (2015), provide direction and mandates for developers of different projects to carry out Environmental (and Social) Impact Assessments. The Zanzibar Environmental Management Authority (ZEMA) is vested with the responsibility to oversee environmental protection including Screening, scoping, coordinating reviewing of EIA reports by relevant stakeholders, and issuance of the EIA certificates and permits . ZEMA charges fees for these services. Also safeguards and procedures to minimise pollution and degradation of the environment and efficient waste management are in place. The laws also provide for penalties and the proceeds to be used for mitigation and operations of the institution in enforcing environmental compliance including Environmental Impact Assessment (EIA) requirements. Penalties and other compensation for unplanned environmental damage represents fines or charges levied to individuals or corporations for actions that cause damage to the environment. These actions are such as illegal wildlife trade, illegal fishing, illegal waste disposal etc. Charges can include fixed fines, remedial costs, and economic damages.

#### 4.4.7 Bio-safety

Zanzibar economy depends heavily on tourism and fisheries sectors. Management of biodiversity resources around these sectors is paramount as the natural ecosystems are heavily affected by certain invasive alien species. Alien plants can outcompete native flora biodiversity in the fragile ecosystems,

while alien invasive animals can similarly outcompete and prey upon fauna. Bio-safety fees are charged for importation of alien plants and animals as guided by the Plant Protection Act of 1997 to regulate importation of such species. The Environmental Management Act 2004 provides for the regulation of development, handling and use of genetically modified organisms (GMOs) and products thereof and provides for making regulations, issuance of guidelines and measures for the regulation of the development, handling, and use and the importation and exportation of GMOs and their products. The Environmental Management (Biosafety) Regulations establishes the Biosafety Framework in Tanzania through the Vice President's Office as the National Biosafety Focal point. The ministries of agriculture and food security, health, water and livestock development have roles in the inspection and enforcement, public education, awareness and participation, and monitoring including surveillance related to bio-security at the ports of entry and impose charges and fees for importation of different kinds of plants and animals mainly as a mitigation and disincentive for such importations.

#### 4.4.8 Debt-for-nature swaps

Debt-for-nature-swap is an arrangement that enable governments to write off portions of their foreign held debt and the savings from the debt write offs are channelled into domestic conservation initiatives and climate adaptation programmes. For example, recently, the government of Tanzania entered into a debt swap agreement with the Russian Federation

<sup>22</sup> Zanzibar Environmental Management Act, 2015; EIA Regulation of 2017; Environmental Impact Assessment - Guidelines and procedures with Annexes (2009)

on Strengthening National Forest and Water Resources Management for Supporting Livelihoods. The proceeds from the debt swap amounting to USD 15m are earmarked for forest conservation, water resources management including piloting the PES to compensate conservation initiatives in the catchments. The project is implemented by the Tanzania Forest Services (TFS) and the World Wildlife Foundation (WWF) oversees the project. While Zanzibar has not developed a Debt-for-nature-swap initiative, this could be one of the BIOFIN options to be explored.

#### **4.4.9 Water**

Private individuals and business establishments are drawing water for personal and business use from wells and other water sources. The user fees charged by Zanzibar Water Authority from utilizing these water resources by the department responsible for water resources management include the abstraction charges for irrigation and water bottling business.

### **4.5 Financial Solutions centred on the Private Sector, NGOs, And CBOs**

#### **4.5.1 REDD+**

Reduced Emissions from Deforestation and Degradation (REDD+) is a climate mitigation practice that reduces carbon emissions through documented changes to forest protection and management practices. Since forests are important repositories of carbon, reducing deforestation or improving forest management can avoid the emissions of carbon. Tanzania implemented the Quick-Start Initiative (UN-REDD National Programme) between 2011 and 2013 that among others, assisted Tanzania to prepare and implement the national REDD+ strategies. The main outcomes on strengthening a national governance framework and institutional capacities for REDD+; increasing capacity for capturing REDD+ elements within National Monitoring, assessment, reporting and Verification systems; improving capacity to manage REDD+ and provide other forest ecosystem services at local levels and; to create a based stakeholder support for REDD+ in Tanzania. Tanzania developed a National REDD+ Strategy and Action Plan 2016 to address the increasing

pressures on forests. As part of the strategy to operationalize the Plan, a National REDD Fund was envisaged. This was however not finalized as the Government initiated a parallel process to consolidate and harmonized respective Funds in the Environment and Natural resources sectors. A National Carbon Monitoring Center which provide long term monitoring and coordinate financing for REDD+ activities in the country was also established. The level of awareness of REDD+ issues among forest-dependent communities was also raised and pilot REDD+ interventions implemented across Tanzania including Zanzibar. Care International in Tanzania implemented a REDD+ pilot project in Zanzibar from 2011-2015. The project involved four interventions villages with 172 households. Goals of the 4-year (USD \$5.5 million) CARE-HIMA Zanzibar project include: reducing greenhouse gas emissions from deforestation and forest degradation in Zanzibar; and ensuring that the resultant benefits contribute to reducing poverty and enhancing gender equality. HIMA is a partnership of CARE, the Department of Forestry, and 3 local NGOs in Zanzibar. The project's central approach is the promotion of decentralized forest management, working at community level on Community Forest Management (COFM). This is an example of pilot projects that serve as biodiversity solution that are implemented mostly by NGOs in collaboration with central and local government authorities.

#### **4.5.2 Corporate and corporate foundations' donations**

Corporations provide support to non-profit organizations implementing sustainable development projects including direct-giving programs, private foundations, and/or public charities. As well, companies can also offer their employees' time by encouraging employee volunteerism. There are many corporate entities in Zanzibar that have annual CSR budgets that are set aside from their annual revenues where investment in CSR do boost hotels profitability mainly on return on asset (ROA) and returns on equity (ROE) contributed by the generated social and business value. NGOs, CBOs and even communities involved in biodiversity conservation can tap into CSR budgets of corporate entities to finance their operations such as supporting local

<sup>23</sup> United Republic of Tanzania, Ministry of Finance and Planning 2018

community awareness and capacity building for natural resources and environment management such as fisheries and mangroves co-management interventions in the coastal areas management where most hotel facilities are located.

#### **4.5.3 Eco-labels**

There are companies that have products or services that follow recognized eco/environmental standards. These labels include specific environmental (or social) information about the product, raw materials, manufacturing/processing, and use benefits. Companies offering such products or services may opt for certification. There are potential businesses from Zanzibar that offer eco-friendly products and services. Some of the cited ecolabels in Tanzania, that may also apply for Zanzibar include the 4C Association committed to address the sustainability issues of the coffee sector, the EarthCheck on benchmarking certification and advisory services for travel and tourism, Green Globe Certification on responsible and sustainable environmental and social activity; and improved environmental and social outcomes for travel and tourism operations. Others are the Forest Stewardship Council (FSC) Chain of Custody Certification and Forest Management that promotes environmentally appropriate, socially beneficial, and economically viable management of forests, the Global Organic Textile Standard aimed to standards for eco textile processing and ensure organic status of textiles, from harvesting of the raw materials, through environmentally friendly mechanisms, the IMO Certified for inspection, certification and quality assurance of eco-friendly products, the LEAF Marqueon for food produced by farmers who are committed to improving the environment for the benefit of wildlife and the countryside, Natrue-Label intended to be

as natural as possible, using natural and organic ingredients, soft manufacturing processes and environmentally friendly practices on cosmetics. The Programme for the Endorsement of Forest Certification (PEFC) schemes is dedicated to promoting Sustainable Forest Management (SFM) through independent third-party certification. Sustainable Agricultural Network that awards the Rainforest Alliance Certified eco-label to farms according to environmental and social standards. The Climate Smart agricultural crops mainly the spices and the now strongly growing green farming horticultural crops both for export and the local tourist hotel industry are examples.

#### **4.5.4 Official Development Assistance**

Official Development Assistance (ODA) constitute an important funding mechanism for biodiversity conservation in Zanzibar. ODA in biodiversity financing is obtained from bilateral and multi-lateral cooperation with development partners. Most of the ODA comes in as part of the Government Budget Support or direct project funding implemented by government agencies or NGOs and to a smaller proportion through the private sector. Recent trends indicate unpredictability and a decline in ODA. It has also been noted that most multi-lateral funding is bureaucratic and quite difficult to access. In this development, further access to ODA will require an increase in transparency, accountability and coordination capacity among public stakeholders, NGOs and the private implementing actors. The ability to write fundable proposals particularly integrated programmes is paramount and has remained to be a challenge in accessing ODA. Table 13 provides a summary of implemented, ongoing and planned biodiversity conservation related projects in Zanzibar.

<sup>24</sup> British Journal of Economics, Management and Trade 23(5): 1-8, 2019; Article No. JEMT.47704 ISSN: 2456): Corporate Social Responsibility and Financial Performance of Hotels in Zanzibar

<sup>25</sup> <http://www.ecolabelindex.com/ecolabels/?st=country,tz>

**Table 14: Biodiversity conservation related projects implemented or ongoing in Zanzibar allied to the BIOFIN Plan and Solutions**

Project / Initiative	Objective /Relationship to the BIOFIN Plan and Solutions	Duration	Implementing Partner/Institution	Project Budget
Reduced Emissions from Deforestation and Degradation (REDD+)	The project's central approach was the promotion of decentralized forest management, working at community level on Community Forest Management (CoFMA). This pilot project generated lessons and best practices on climate mitigation practice reduced deforestation and improvement in forest protection and management. The project will thus be referenced serving the purpose of implementing strategies for reducing deforestation or improving forest management as part of the participatory biodiversity conservation.	2011-2015	Care International- <i>Hima in Zanzibar</i>	
"Enhancing the Forest Nature Reserves network for biodiversity conservation"	The project aimed at improving the management of PAs on Tanzania's mainland, developing management skills, and equipping and training the staff assigned to these areas. This project provides relevant information activities on improving the management of PAs in Zanzibar.	2014 – 2019	GEF-UNDP implemented by the Tanzania Forest Services, under the Ministry of Natural Resources and Tourism for Tanzania mainland	USD 4.1m.
"Safeguarding Zanzibar's Forest and Coastal Habitats for Multiple Benefits"	The project has three interrelated components: Component 1. Strengthening Zanzibar's policy and institutional framework for effective biodiversity conservation and natural resource management is intended to improve enabling environment for biodiversity conservation and sustainable management of natural resources on Zanzibar by removing policy and institutional barriers. The project will facilitate review of policy frameworks and strengthen support development and implementation of Biodiversity Strategy and Action Plan. The main outcomes include developing and implementing integrated policy and planning framework to promote effective biodiversity conservation and ecosystem management. Two key outputs are expected: (i) review and harmonization of the Land Tenure Act (No. 12 of 1992), the Environmental Management Act (No. 3 of 2015), and the Forest Resources Management and	2019-2025	GEF Trust Fund administered by UNDP in Zanzibar	USD 5.18m

Conservation Act (No. 10 of 1996) and relevant regulations; (ii) development and implementation of a Zanzibar Biodiversity Strategy and Action Plan, building on sectoral strategies and plans, including the long-term forestry plan, national spatial plan and climate change strategy, to promote effective terrestrial and coastal forest management and sustainable land use. The URT NBSAP adopted in 2001 and the updated version for 2015-2020 focuses on reducing biodiversity loss, promoting biodiversity values and improving community livelihoods on both mainland Tanzania and Zanzibar, but largely focus on mainland Tanzania with a limited scope for biodiversity issues and governance structures relevant to the islands. This therefore necessitates need for a dedicated Zanzibar Biodiversity Strategy and Action Plan (ZABSAP). It is expected that the process developing and implementing the ZABSAP will be led by the First Vice President's Office (FVPO), through the Department of Environment (DoE) as the national institution legally mandated to oversee and coordinate all environmental and biodiversity conservation matters in Zanzibar. The ZABSAP is expected to focus on (i) mainstreaming biodiversity into development frameworks, particularly forests and wildlife conservation, tourism, energy, agricultures, and water sectors; (ii) maintaining and enhancing ecosystem goods and services; and, (iii) reducing the vulnerability of ecosystems and communities to climate change.

Component 2: Strengthened management of Zanzibar's network of protected areas and areas under community forest management will include establishment of wildlife corridors between PAs, establish new PA, review PA Management Plans, and support community-driven actions. The revision of the CoFMA Guidelines is expected to emphasize the role of CoFMAs on biodiversity conservation and climate change mitigation. CoFMAs are expected to improve effectiveness of the network of protected areas and areas under community forest management.



Project / Initiative	Objective /Relationship to the BIOFIN Plan and Solutions	Duration	Implementing Partner/Institution	Project Budget
	Component 3: Gender mainstreaming, knowledge management and learning. Based on these components, the project will be a key initiative to finance significant processes for the BIOFIN in Zanzibar particularly those centred around establishing the ZNBSAP and its implementation.			
“Reversing land degradation trends and increasing food security in degraded ecosystems of semi-arid areas of Tanzania”	The project is promoting sustainable land and water management practices in selected areas in Tanzania, including Micheweni District in northern Pemba. The project applies a landscape approach to reconcile competing land uses in targeted areas. Lessons learned on implementation of the landscape approach and adoption of sustainable land-use practices will be in safeguarding Zanzibar’s terrestrial and coastal habitats and strengthening coordination to facilitate synergies.	2017 – 2022	Executed by the Vice President’s Office (VPO) and International Fund for Agricultural Development (IFAD) acts as implementing agency both Tanzania mainland and Zanzibar	USD 7.15m
“Supporting the implementation of integrated ecosystem management approach for landscape restoration and biodiversity conservation in Tanzania”	Aims at strengthening natural resource management and restoring degraded landscapes in Tanzania. While the areas targeted by the project are all located in Tanzania’s mainland, the experience with land and forest restoration practices will be useful for Zanzibar particularly implementation at landscape approach to reconcile different objectives by a variety of land users. The activities to develop the policy and institutional frameworks for sustainable land restoration will be provide lessons on policy framework development.	2018 – 2023	GEF-UN implemented by UN Environment and executed by VPO in Tanzania mainland	USD 11.2m
“Combating poaching and the illegal wildlife trade in Tanzania through an integrated approach	The project will address issues related to the illegal wildlife trade in Tanzania through an integrated approach. At the national level, the project will support the Government of Tanzania in strengthening the enabling environment by enhancing legislative and policy frameworks. At the landscape level, the project will contribute to strengthening the capacity, improve multi-institutional collaboration and cooperation with local communities, private sector and NGOs in targeted ecosystems. It also addresses the sustainable livelihood opportunities to reduce dependency on vulnerable habitats and wildlife.	2019 – 2021	GEF-UNDP	USD 5.4m.

Project / Initiative	Objective /Relationship to the BIOFIN Plan and Solutions	Duration	Implementing Partner/Institution	Project Budget
“Reducing Maritime Trafficking of Wildlife between Africa and Asia” Duration: 36 months	The project will address the international illicit wildlife trade passing through seaports in East Africa (Mombasa, Dar es Salaam and Zanzibar) and Asia. The project seeks to increase capacities to prevent, detect and intercept illicit wildlife trafficking. While most activities focus on the ports of Mombasa and Dar es Salaam, key activities to improve the capacities at the Zanzibar port are also proposed to strengthen capacities at the port of Zanzibar	2019 – 2021	GEF-UNDP	USD 2.0 m
“Enhancing Climate Change for Livelihood in Zanzibar”	The project aims to (i) strengthen institutional capacity of the Climate Change Secretariat (CCS) and other key stakeholders; (ii) increase the availability and use of meteorological and spatial information; (iii) implement pilot activities on strategic sectors (i.e. tourism, infrastructure -urban and strengthen the capacity of RGoZ to mobilize and manage financial resources to address climate change.	2019 – 2021	UNDP in Zanzibar	USD 1.0 m
“Market Infrastructure Value Addition and Rural Finance Programme (MIVARF)”	The objective of the project is to improve farmers’ access to markets and increase the share of value added by small- and medium-scale producers, which will ultimately enhance food security and improve the socio-economic welfare of the farmers and small- and medium-scale producers. The project’s activities will contribute to reduce the barriers for the adoption of sustainable agricultural practices to be promoted by the project on “Safeguarding Zanzibar’s Forest and Coastal Habitats for Multiple Benefits”.	2010 – 2020	AfDB/IFAD Zanzibar	USD 158 m

## 5. INSTITUTIONAL ANALYSIS

### 5.1 Institutional Arrangements Between and among the Institutions

#### 5.1.1 Institutions Responsible for Biodiversity-Related Finance

Institutional analysis was carried out to identify key organizations and their roles, functions and mandates with respect to biodiversity finance. This chapter reviews key institutions responsible for policy decisions, regulatory framework and implementation of strategies that generate positive or negative incentives or drivers for biodiversity change. The institutional review informs strategies to engage them in implementation of Biodiversity Finance Plan.

The institutional context for biodiversity in Zanzibar spans across central governments, non-government actors mainly the private sector and the civil society, communities and development partners. There are over 25 institutions in Zanzibar that have relatively direct mandates and functions related to biodiversity conservation and utilization. These are mainly government sectors, agencies and institutions. There also about 15 non-government agencies, academic and research institutions and private sector and community-based institutions involved in biodiversity management related interventions. The central role is played by the respective sector basing on their policy mandates translated into respective and Strategies and Action Plans. This institutional analysis provides guidance key organizations and their roles, functions and mandates with respect to biodiversity finance. The review establishes key institutions responsible for policy decisions, regulatory frameworks and implementation of strategies and plans that generate positive or negative incentives or translate into drivers for biodiversity change. The institutional review therefore informs strategies to engage the respective stakeholders in implementation of Biodiversity Finance Plan and Solutions including identification of the role of public and private agencies.

Based on the biodiversity trends analysis and associated drivers of change and the institutional roles in biodiversity conservation and financing, key sectors identified were categorized into four

main groups namely (i) those directly responsible for the biodiversity conservation; (ii) sectors responsible for biodiversity related financing; (iii) institutions directly or indirectly impacting biodiversity and (iv) Non-state actors contributing to biodiversity conservation and with potential for biodiversity financing.

The main categories include Ministries, Departments and Agencies (MDAs); Non-state actors that include conservation and environmental NGOs and the private sector mainly in tourism investments. These sectors are responsible for biodiversity conservation particularly forestry, wildlife, marine resources and fisheries as the back-bone of the Zanzibar's economy, including the supporting livelihoods for communities neighbouring or inhabiting biodiversity-rich ecosystems. These sectors set budgets, allocate funds and implement the budgets for sector strategies and plans for the biodiversity conservation in Zanzibar. The ZSGRP III ZS requires all MDAs to develop Action Plans aligned with based on sectoral priorities as mandated by respective tools for the conservation (terrestrial forestry including wildlife/animals, marine resources including fisheries). The priorities are legally on protecting and conserving biodiversity through establishment of protected areas network comprising of PA categories of different protection regimes: (i) National parks; (ii) Forest reserves with diverse biodiversity mainly primates, birds and plants; (iii) Marine protected areas (MPAs); (iv) Mangroves ecosystems; and (v) Community Forest Management Areas (CoFMAs).

- a. **Sectors and institutions directly responsible for the conservation (protection and wise use) and management of biodiversity, and associated tourism attractions.**
  - i. Natural Resources Management Departments – Forestry and Non-Renewable Resources also responsible for wildlife
  - ii. Sectors responsible for Blue economy development
  - iii. Coastal and Marine Parks

- iv. Tourism sector including Tourism Department and the Tourism Commission
- v. National Heritage (Archives, Museums and Antiquities)
- vi. Department of Environment
- vii. Department of Agriculture
- viii. Local Government Authorities (Regional, Districts and communities)

**b. Sectors responsible for Planning, finance policies, finance administrations, collection and allocations to various sectors including those responsible for biodiversity conservation and management.**

The PO-F&P is the main stakeholder with the overall mandate and responsibility to plan, mobilize and manage financial resources for implementation of national priorities through implementation of Annual Development Plans and Budgets. These roles are assigned in different departments and agencies.

- i. Department of External Finance, Planning Commission and Budgeting Commission. The Planning Commission has even broader role on macro policy development such as the National development vision 2050 and the Poverty Reduction Strategy.
- ii. Zanzibar Revenue Board
- iii. Tanzania Revenue Authority (TRA)
- iv. Zanzibar Investment Promotion Authority (ZIPA)

**c. Other important sectors/institutions that directly or indirectly impact (-vely/+vely) biodiversity or are impacted (-vely/+vely) by biodiversity, yet potential for contributions to its financing solutions. This category covers the institutions and agencies with cross cutting and facilitative role. This category includes also the research and academic institutions based on their role in generating information and capacity building in biodiversity management. The relevant institutions include:**

- i. Ministry of Trade and Industrial Development

- ii. President's Office, Labour, Economic Affairs and Investment
- iii. Lands and Housing Development (Urban and Rural Planning)
- iv. Water, Energy and Mining
- v. Irrigation, Natural Resources and Livestock
- vi. Zanzibar Environmental Management Authority (ZEMA)
- vii. Zanzibar Electricity Corporation (ZECO)
- viii. Zanzibar Agriculture Research Institute (ZARI)
- ix. Institute of Marine Sciences (IMS)
- x. The State University of Zanzibar (SUZA)
- xi. National Bureau of Statistics
- xii. Tanzania Meteorological Authority (TMA), Zanzibar Branch

**d. Private sector and CSOs with high contributions to biodiversity conservation and potential influence for biodiversity financing solutions.**

Due to inadequate capacity of government agencies to protect the natural resources, there has been an increasing development in engaging local community, the private sector and civil society in interventions related to forest protection and fisheries management. Engagement of community and the private sector in biodiversity related conservation has influenced policy and legal framework drifts to provide opportunities and institutionalization of roles, partnerships and benefit sharing serving as incentives for biodiversity conservation.

The main institutions under the Private sector and CSOs:

- i. Zanzibar Association of Tourism Investors (ZATI)
- ii. Zanzibar National Chamber of Commerce, Industry and Agriculture
- iii. CSOs, NGOs (Local and International)

There are also emerging investments in oil and gas that have environmental mitigation strategies and research and training institutions that generate information for better biodiversity finance. These fall

under the category of Non-Renewable Natural Resources managed using existing Environment and respective Oil and Gas policies and legal frameworks.

Annex 8.2 elaborates these main organizations for the BIOFIN Methodology in Zanzibar including analysis of key mandates that impact the main institutions on priority drivers or finance instruments, challenges in maintaining or expanding biodiversity finance and opportunities/entry points for positive change and engagement in biodiversity financing.

### ***5.1.2 Analysis of the main institutions based on interest and influence***

The review of existing biodiversity finance institutions and organizations undertook and analysis of these institutions to focus on the most important sectors that drive biodiversity change

and the most important institutions. The method used was the ranking based on the organizational evaluation using the Power/Interest stakeholders Matrix. Most MDAs rank high in terms of power based on their vested mandates mainly those responsible for financial policies and natural resources management while the private sector and NGO/Civil Society fall low in the grid. As for the interest, the institutions responsible for biodiversity related mandates and the private sector particularly on tourism ranked high. Table 15 provides the roles and responsibilities for key stakeholders in biodiversity management.



**Table 15: Institutional/Sector Analysis for BIOFIN Engagement**

Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
President's Office, Finance and Planning (PO-F&P)	The President's Office - Finance and Planning (PO-F&P) has the overall mandate to mobilize and manage financial resources for implementation of national priorities. The PO-F&P issues Annual Budget Guidelines (PBG) to guide mobilization and allocation of financial resources for implementation of Annual Development Plans and Budgets. The PO-F&P also guides preparation of plans and budgets by all Accounting Officers in Ministries, Independent Departments and Agencies (MDAs), Local Government Authorities (LGAs), and Public Institutions and Statutory Corporations (PISCs) that include Zanzibar Revenue Board (ZRB), Zanzibar Investment Promotion Authority (ZIPA), Zanzibar Planning Commission (ZPC), People's Bank of Zanzibar (PBZ) and Tanzania Revenue Authority (TRA). PO-F&P oversees implementation of such plans and budgets in line with the Government Acts and Regulations. These government institutions are the main stakeholders in implementing biodiversity actions through respective plans.	<ul style="list-style-type: none"> <li>Limited awareness on the value of biodiversity</li> <li>Scanty data on biodiversity contribution to overall development i.e. in the GDP</li> </ul>	<ul style="list-style-type: none"> <li>Linking with the most significant existing and potential biodiversity finance actors</li> <li>Focus on key biodiversity financeable areas</li> <li>Lifting barriers to spending allocated budgets</li> </ul>
Department of External Finance	Manages funding from external sources (Bilateral, Multilateral) including grants, loans intended for the general budget support or direct project funding.	<ul style="list-style-type: none"> <li>Limited awareness on the value of biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Development of bilateral and multilateral frameworks to access resources for biodiversity financing</li> </ul>
Planning Commission	Oversees the implementation of ZSGRP III Issuance of Planning and Budget Guidelines (PBG) to guide mobilization and allocation of financial resources for the implementation of Annual Development Plans and Budget.	<ul style="list-style-type: none"> <li>Scanty data on biodiversity contribution to overall development i.e. in the GDP</li> <li>Justification for inclusion of specific biodiversity instructions the Budget Guidelines</li> </ul>	<ul style="list-style-type: none"> <li>Entry point for inclusion of biodiversity instruction in the Budget Guidelines</li> </ul>
Budgeting Commission	Planning and budget including prioritization of national plans and budgets based on the Budget Guidelines.	<ul style="list-style-type: none"> <li>Justification for inclusion of specific biodiversity instruction the Budget Guidelines</li> <li>Allocating sufficient funding for biodiversity in the sector plans in the absence specific priorities</li> </ul>	<ul style="list-style-type: none"> <li>Resources allocation for biodiversity in the sector plans</li> </ul>

Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
Tanzania Revenue Authority	Charged with the responsibility of managing the assessment, collection and accounting of all central government revenues.	<ul style="list-style-type: none"> <li>• Rationalization of tax charges in relation to nature and extent of impacts to biodiversity in Zanzibar;</li> <li>• Level of biodiversity finance prioritization in reviewing relevant legislations, policies, plans and regulations</li> <li>• Capacity to ensure governance principles in tax administration practices</li> </ul>	<ul style="list-style-type: none"> <li>• Harmonization of revenues and taxes in favour of biodiversity conservation;</li> </ul>
Zanzibar Revenue Board	Responsible for tax administration in Zanzibar including collection of all government revenues for the RGoZ such as VAT, hotel levy, infrastructure tax, tour operators' levy, restaurant levy, airport service charge, seaport service charge, and petroleum levy with the exception of customs, excise and income taxes which are administered by TRA.	<ul style="list-style-type: none"> <li>• Rationalization of tax charges in relation to nature and extent of impacts to biodiversity in Zanzibar;</li> <li>• Level of biodiversity finance prioritization in reviewing relevant legislations, policies, plans and regulations</li> <li>• Capacity to ensure governance principles in tax administration practices</li> </ul>	<ul style="list-style-type: none"> <li>• Retention and re-investment of revenues in biodiversity conservation;</li> </ul>
Zanzibar Investment Promotion Authority (ZIPA)	Responsible for investment promotion, facilitation and aftercare services through "One Stop Centre" mechanism. Also regulates and administers activities in Zanzibar including Free Economic Zones and operates under the Zanzibar Investment Promotion and Protection Authority Act no 14 of 2018.	<ul style="list-style-type: none"> <li>• Biodiversity-focused decisions for investments e.g. Foreign Direct Investments-FDIs) due to land scarcity and other local challenges</li> <li>• Compliance with Environmental Impact Assessments requirements and EIAs reports</li> </ul>	<ul style="list-style-type: none"> <li>• Promoting biodiversity friendly investments</li> <li>• Development of positive biodiversity conservation incentives</li> </ul>
Bank of Tanzania-Zanzibar	Is the Central Bank of the URT responsible for issuing the national currency, and oversees the country's monetary policy, including regulation and supervision of commercial banks and financial institutions.	<ul style="list-style-type: none"> <li>• Limited awareness on the value of biodiversity and contribution to overall economy</li> </ul>	<ul style="list-style-type: none"> <li>• Influencing macro policy instruments on biodiversity financing</li> </ul>

Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
Department of Tourism, Ministry of Tourism and Heritage	The tourism sector in the Ministry of Information, Culture, Tourism and Sports is mandated to oversee and coordinate all matters related to tourism in Zanzibar through the Department of Tourism (DoT). The DoT is responsible for sustainable tourism development including ensuring Environmental Impact Assessment application	<ul style="list-style-type: none"> <li>• Poor compliance of some tourism-related enterprises/investors to Environmental Impact Assessments requirements and EIS reports; tax paying and other related regulations, with focus to sustainable biodiversity conservation</li> <li>• Inadequate capacity (man power and financial resources)</li> <li>• Weak linkages between tourism and other related sectors, low capacity for collecting revenue, low skills in tourism management</li> </ul>	<ul style="list-style-type: none"> <li>• World class tourism image. Zanzibar has been described as land of exotic natural species, Romantic Island, land of all kinds of merchants, traders, missionaries and explorers, mother city of East Africa, paradise of Africa, isles of harmony and hospitality and the cradle of standard Kiswahili. Only resources are needed for promotion and addressing the challenges</li> </ul>
Department in charge of Heritage	The Department of Archives, Museums and Antiquities (DAMA) is dedicated to preserving Zanzibar's heritage mainly the fragile historic, cultural and natural attractions including the coastal biodiversity forms	<ul style="list-style-type: none"> <li>• Inadequate integration with biodiversity conservation</li> <li>• Operational challenges leading to lack of/inadequate direct financing to biodiversity conservation (marine, coastal and terrestrial)</li> <li>• Inadequate capacity (man power and financial resources)</li> <li>• Weak linkages with other related sectors, low capacity for collecting revenue, low skills in tourism management as well as dilapidating historical, heritage and tourist attractions.</li> </ul>	<ul style="list-style-type: none"> <li>• World class tourism destination image</li> <li>• Effective promotion strategies</li> <li>• Improving revenue collection and allocation for addressing challenges and problems</li> <li>• Intersectoral linkages</li> </ul>

Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
Zanzibar Commission for Tourism	<p>The Zanzibar Commission for Tourism (ZCT) was established to promote the archipelago as a tourist destination and is engaged in licensing and monitoring of tourism activities, public education, training and assistance to investment. The Commission works to ensure sustainable tourism development in Zanzibar through promotion of Zanzibar as a unique destination for heritage tourism including sand beaches and pristine coastal and marine environment, the flora and fauna that include Jozani National Park, the Ngezi rainforest, mangroves, Marine Conservation Areas (MCA) and a variety of birdlife.</p>	<ul style="list-style-type: none"> <li>• Inadequate financial resources to implement the Tourism Strategic Plan (2015-2020).</li> <li>• Persisting leakages in their tourism systems</li> <li>• Many tourists buying pre-arranged tours to Zanzibar as an “add-on” to their mainland Tanzania safaris</li> <li>• Inadequate funding for promotion of biodiversity related Tourism</li> <li>• Inadequate/poor balance of financing for the promotion and biodiversity conservation</li> <li>• Weak linkages between tourism and other related sectors, low capacity for collecting revenue, low skills in tourism management as well as dilapidating historical, heritage and tourist attractions.</li> </ul>	<ul style="list-style-type: none"> <li>• Committed resources for efficient utilization of available financial resources on prioritized activities.</li> <li>• A strategy for resources mobilization stipulated in the Strategic Plan (2015-2020)</li> </ul>
Zanzibar Association of Tourism Investors (ZATI)	<p>Advocates for a sustainable and responsible tourism industry mainly private sector tourism development. It is a non-governmental organization, established to represent the interests of all tourism investors in Zanzibar. ZATI ensures a sustainable and professional tourism industry working with private and Government institutions in addressing among other issues, fees, taxes and levies, advocating for friendly investment policies and security and promoting sustainable environment.</p>	<ul style="list-style-type: none"> <li>• Unstrengthened Public Partnerships with biodiversity focus to practically enhancing sustainable tourism</li> <li>• Number and size of tax charges in relation to tourism dynamics e.g. during pandemics (Global economic crisis, COVID-19, etc.)</li> <li>• Inadequate capacity (e.g. skills, resources, etc.) and awareness of members to integrate biodiversity financing in their budgeting system</li> </ul>	<ul style="list-style-type: none"> <li>• Potential in influencing government policy change and its members on paying any revised and accepted tax charges for biodiversity financing</li> </ul>

Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
Zanzibar National Chamber of Commerce, Industry and Agriculture	Serves as an umbrella organization for coordinating trade in industry and agriculture	<ul style="list-style-type: none"> <li>Inadequate awareness on valuing biodiversity enough to integrate its financing mechanisms into their budgeting systems</li> <li>Some companies indirectly linked to biodiversity, hence minimal interest to finance biodiversity conservation</li> </ul>	<ul style="list-style-type: none"> <li>Potential in influencing biodiversity financing from their budget systems and Crowdfunding campaigns</li> </ul>
Lands Department, – Ministry of Lands & Housing Development	<p>The Lands Department in Zanzibar is responsible for sustainable Land use and management. It is mandated to oversee integrated land use planning and management including urban land uses based on environmental impact considerations. The mandate is provided for by the Land Tenure Act (No. 12 of 1992). The sector is of paramount importance in setting up policies, institutions, strategies, plans and regulations related to land-use issues which have direct and indirect impact to biodiversity in Zanzibar.</p> <p>Synergies with other related sectors such as the Ministry of Agriculture, Irrigation, Natural Resources and Livestock, Ministry of Tourism and Heritage, and Local Government Authorities (LGAs) where most initiatives are implemented and private sector including the Civil Society Organisations (CSOs), and local and international NGOs will be critical.</p>	<ul style="list-style-type: none"> <li>Land scarcity to accommodate an increasing human population and their socio-economic activities</li> <li>Some subsidies somewhat or potentially harmful causing unsustainable land uses and biodiversity loss</li> <li>Challenges in harmonizing relevant inter-sectoral policies in balancing various land uses and biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Reviews and adherence to approved land policy, land use plans and institutional arrangements with focus to internalise financial windows for biodiversity e.g. land use related fees, tax charges, etc.</li> <li>Vertical development of housing infrastructure</li> </ul>
Zanzibar Electricity Corporation (ZECO)	<p>The energy sector oversees and coordinates all matters related to energy in Zanzibar through the Zanzibar Electricity Corporation (ZECO), mainly electricity development, development of alternative energy sources, and promotion of sustainable renewable energy resources. The process will thus explore all key aspects related to BIOFIN project, especially existing and possible finance solutions for biodiversity conservation.</p>	<ul style="list-style-type: none"> <li>Inadequately subsidized costs for on-grid electricity connections (Tanzania Electric Supply Company Limited-TANESCO) that would reduce an existing high dependence on wood as the main source of household energy</li> <li>Financial resources for alternative energy sources: solar, wind and renewable resources</li> <li>Inadequately formulated conservation fees and related charges for biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Alternative energy sources: solar, wind and renewable resources</li> <li>TANESCO is one of the main beneficiaries of biodiversity conservation especially water catchment forests, hence need to increase financing conservation</li> </ul>



Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
Department of Forestry and Non-Renewable Natural Resources, Ministry of Agriculture, Irrigation, Natural Resources and Livestock	<p>The Department of Forestry and Non-Renewable Natural Resources (DFNR) is responsible for sustainable forest management including the terrestrial forest reserves that harbour wildlife as well, mangroves and coastal forests. It is responsible for biodiversity conservation in core protected areas and Community Forest Management Areas (CoFMAs) as buffer and/or corridor areas. Responsible for sustainable forest management including mangroves, coastal forests and biodiversity-rich forests, natural forest with biological diversity value and genetic resources conservation</p>	<ul style="list-style-type: none"> <li>• Inadequately financed for reviewing conservation plans in protected areas, sectoral laws, policies and Regulations with focus to financing for biodiversity conservation</li> <li>• Inadequate capacity (manpower and various skills)</li> <li>• Policy gaps on setting appropriate rate/ratio of funds generated from nature-based tourism to be set back for biodiversity conservation</li> </ul>	<ul style="list-style-type: none"> <li>• Nature-based tourism is still the key in Zanzibar. Hence, study on retention scheme of the revenue generated from the destination-related tourism is crucial to add value in biodiversity financing mechanism</li> </ul>
Department of Agriculture	<p>The Department of Agriculture (DoA) under the MANRLF is charged with promoting sustainable agriculture practices that supports about 80% of the population in Zanzibar (RGZ, 2014). DoA oversees and coordinates all matters related to agriculture development guided by the Zanzibar Agriculture Policy (2002) and the Zanzibar Environmental Policy (2013). Among others, works to minimize encroachment in public lands, forests, woodlands, wetlands and pastures; and maintenance of biological farmlands uses. The traditional practice has been expansion of agriculture lands associated with shifting-agriculture systems, encroachment in forests, woodlands, wetlands and pastures identified as the main driver for biodiversity decline in most ecosystems.</p>	<ul style="list-style-type: none"> <li>• Some subsidies on agricultural inputs for poverty reduction through enhanced food security potential having direct/indirect harmful effects to biodiversity</li> <li>• Land scarcity</li> <li>• Inadequately applied agricultural intensification technologies to reduce areas for biodiversity (forests, mangroves, animals, genetic pools, etc.)</li> <li>• Inadequately set fees/tax charges to increase financing for biodiversity or deterring threatening activities to biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>• The BIOFIN finance solutions would include strategies, programmes and projects providing alternative livelihoods in Zanzibar such as climate-smart agriculture, seaweed farming and ecotourism to supplement agricultural produces. Other options would address harmful subsidies; agricultural research and technology development to improve the value chain that will contribute to biodiversity conservation.</li> </ul>

Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
Water Resources Management Department	<p>The water sector through the Water Resources Management Department under the Ministry of Water, Energy and Mining is responsible for water resources management and supply, planning and implementation of water resources development programmes including water catchment's areas, improved management and conservation of wetlands. The sector is also responsible for the prevention and reduction of pollution of the marine and coastal waters in Zanzibar. These mandates have positive implications to biodiversity conservation. Hence, the inclusion of this sector in the BIOFIN process is crucial to ascertain key strategies related to PIR, BER, BFP, FNA and FSs contributing to biodiversity conservation and environmental management.</p>	<ul style="list-style-type: none"> <li>• Inadequate valuation of water resources as an ecosystem services for appropriate pricing for various users and respective fees /tax charges</li> <li>• Inappropriate location decisions for various development projects directly or indirectly impacting water catchment areas and biodiversity</li> <li>• Lack of technology-based mechanisms for surface-ground water explorations and supplies, and waste water management</li> </ul>	<ul style="list-style-type: none"> <li>• “Without water no biodiversity, and vice versa” especially forests as catchments. Hence, opportunities for revising water –related fees and tax charges to various users at fair rates as per uses</li> <li>• Payment for Ecosystem Services (PES) to safeguard catchment forests and biodiversity</li> </ul>
Department of Fisheries and Mariculture	<p>The Department of Fisheries Development (DoFD) under the - Ministry of Blue Economy and Fisheries is dedicated to facilitating sustainable fisheries in Zanzibar. As such, DoFD is charged with implementation of the Fisheries Policy and respective strategies. Development of sustainable fisheries including policy developed, regulation and protection of fragile ecosystems and endangered species through proper fisheries management, mitigation/prevention of coastal and waterways degradation, and control of industrial pollution. The DFMR is mandated for the development of sustainable fisheries in Zanzibar including policy development, regulation and protection of fragile marine ecosystems, marine protected areas (MPAs) and endangered species through proper fisheries management, mitigation/prevention of coastal and waterways degradation, and control of industrial pollution in coastal and marine resources.</p>	<ul style="list-style-type: none"> <li>• Illegal fishing and collection of other marine resources</li> <li>• Use of inappropriate fishing gears by low income fishermen</li> <li>• Inadequate resources, man power and facilities/equipment for effective patrols</li> <li>• High demand for domestic consumption and exports that drive overfishing (legal and illegal)</li> </ul>	<ul style="list-style-type: none"> <li>• A good potential for foreign investment in offshore (EEZ) marine capture fisheries, in aquaculture and in fisheries infrastructure</li> <li>• Strengthening intra-sectoral capacity and inter-sectoral collaborations, and coordination</li> <li>• International supports</li> <li>• Strengthening the relevant legal institutional framework</li> </ul>

Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
Department of Environment, First Vice-President's Office	<p>Department of Environment (DoE) under the Second Vice President's Office (2VPO) to oversee and coordinate all matters related to environmental management and climate change in Zanzibar guided by the Environmental Management Act (No. 3 of 2015). The DoE oversees and coordinates all strategies, programmes, plans and projects through a National Steering and Technical Climate Change Committees (that incorporate also biodiversity aspects) with cross representation Committee that incorporates Departments of Environment, Energy and Urban and Rural Planning of the MLWEE; Ministry of Finance and Planning; Ministry of Tourism; Ministry of Agriculture, Livestock and Fisheries; Department of Forestry and Natural Resources; and Tanzania Meteorological Agency Zanzibar and the Disaster Risk Management Office. Also co-opts Members from NGOs and Academia/Research Institutions.</p> <p>The DoE is key in implementation of the planned Zanzibar Biodiversity Strategic and Action Plan (ZBSAP) that aims to contextualize the National Biodiversity Strategic and Action Plan (NBSAP) in Zanzibar</p>	<ul style="list-style-type: none"> <li>Climate change related inter-sectoral coordination, inadequately set clear roles at various sectors and institutions, private and CSOs on environmental issues</li> </ul>	<ul style="list-style-type: none"> <li>Environmental issues touch almost all sectors and many stakeholders, hence high chance for collaboration in addressing the challenges</li> <li>Legal and institutional framework well-arranged only needs capacitate development including finance resources</li> </ul>
Zanzibar Environmental Management Authority (ZEMA)	<p>Enforces Regulations with respect to Environmental Act including the Environmental Impact Assessment Regulations</p>	<ul style="list-style-type: none"> <li>Weak compliance of some investors in various sectors whose impacts directly or indirectly touches biodiversity</li> <li>Inadequate capacities (technical and non-technical) for undertaking EIA and</li> </ul>	<ul style="list-style-type: none"> <li>Available opportunities for stakeholder's involvement for reviewing fees and charges related to environmental impacts of various developments to enable contributions to biodiversity finance</li> </ul>
Tanzania Meteorological Authority (TMA) Zanzibar Branch	<p>Generates and manages meteorological information for planning purposes</p>	<ul style="list-style-type: none"> <li>Perceived weak linkages to other sectors that have impacts to biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Awareness raising opportunity to relevant stakeholders between sectors</li> </ul>

Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
<b>Research and Academia</b>			
IMS	The Institute of Marine Sciences (IMS) of the University of Dar es Salaam is dedicated to research, training and consultancy services in marine issues.	<ul style="list-style-type: none"> <li>Inadequate financial resources to undertake relevant research works and studies that would promote understanding and support biodiversity conservation for Sustainable Development</li> </ul>	<ul style="list-style-type: none"> <li>for expertise and financial resources (national and international) from public and private research and academic institutions to write proposals for various research projects grants</li> </ul>
Zanzibar Agriculture Research Institute – ZARI	<ul style="list-style-type: none"> <li>Research in crop management including conservation of special species and conservation of native species</li> </ul>	<ul style="list-style-type: none"> <li>Limited integration between sectors limiting resources mobilization</li> </ul>	<ul style="list-style-type: none"> <li>Legal provisions of protection of biodiversity</li> <li>Provision of tourism in the special research sites and retention of such revenue</li> </ul>
State University of Zanzibar (SUZA)	SUZA undertakes researches as well as training, generating information and having training functions in various biodiversity related disciplines	<ul style="list-style-type: none"> <li>Biodiversity is not a core responsibility for the university</li> </ul>	<ul style="list-style-type: none"> <li>Research and studies to inform biodiversity solutions</li> </ul>
<b>NGO/Civil Society</b>			
CARE International	Supporting participatory natural resources management, working with communities adjacent to protected areas (forests - Ngezi, Jozani), development of IGAs and benefit sharing mechanisms	<ul style="list-style-type: none"> <li>Sustainability after the end of project life span</li> </ul>	<ul style="list-style-type: none"> <li>Capacity building including necessary skills imparted to key staff and local communities</li> </ul>
WWF	WWF The World Wildlife Fund for Nature (WWF) works with various partners including government, NGO and communities to conserve marine, coastal forests and fisheries management in Zanzibar including conservation and environmental education initiatives in Menai Bay and other sites in Tanzania.	<ul style="list-style-type: none"> <li>Sustainability after the end of project life span</li> </ul>	<ul style="list-style-type: none"> <li>Capacity building including necessary skills imparted to key staff and local communities</li> </ul>
WCS	Supports wildlife management including birdlife, endangered species research works	<ul style="list-style-type: none"> <li>Sustainability after the end of project life span</li> </ul>	<ul style="list-style-type: none"> <li>Capacity building including necessary skills imparted to key staff and local communities</li> </ul>

Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
WIOMSA	A regional professional, non-governmental, non-profit, membership organization, registered in Zanzibar, Tanzania. The organization is dedicated to promote the educational, scientific and technological development of all aspects of marine sciences throughout the region of Western Indian Ocean, with a view toward sustaining the use and conservation of its marine resources including research in marine and coastal resources	<ul style="list-style-type: none"> <li>• Inadequate financial and other resources</li> </ul>	<ul style="list-style-type: none"> <li>• Collaboration opportunities for expertise and financial resources (national and international)</li> </ul>
Conservation Corporation Africa -CCA	An ecotourism enterprise, Conservation Corporation Africa (CCA) operates the lodge on Mnemba Island and other sites in Tanzania	<ul style="list-style-type: none"> <li>• Inadequate financial and other resources</li> </ul>	<ul style="list-style-type: none"> <li>• Engaging in ecotourism enterprise including supporting adjacent communities on alternative livelihoods and incomes</li> </ul>
Jozani Environmental Conservation Association - JECA	Is a registered community-based organization, working with local communities in villages/Shehia surrounding Jozani-Chwaka Bay National Park. Its focus is to involve communities in natural resources management to adapt with climate change. Key activities include involvement of the community in conservation of natural resources in the Jozani Chwaka bay area; education and awareness on the wise use of natural resources; rehabilitation of degraded mangrove forest and other ecosystem; facilitate and support provision of alternative sources of livelihoods;	<ul style="list-style-type: none"> <li>• Inadequate financial and other resources</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness raising and continual supports through community conservation services</li> </ul>
JUMIJAZA	Coordinate, supervise and facilitate Carbon Finance An umbrella association established through the HIMA project to coordinate the CoFMAs functions Facilitate establishment of Protected areas	<ul style="list-style-type: none"> <li>• Establishment of COFMAs is an expensive process that require external facilitation</li> <li>• Operations of CoFMAs and umbrella association rely on charges from law enforcement which is unsustainable</li> </ul>	<ul style="list-style-type: none"> <li>• This is a community-based association that operate through CoFMAs to facilitate biodiversity conservation around protected areas and biodiversity hotspots in community lands and corridors</li> </ul>



Institution	Description of the Mandate with respect to BIOFIN	Challenges in relation to Biodiversity Financing	Opportunities for +ve Change
UWAMWIMA	<ul style="list-style-type: none"> <li>• Is an organization that facilitates capacity building in production and marketing of organic farming</li> <li>• Advocates organic farming in Zanzibar</li> <li>• Coordinates household level organic farming through Family Farmer Groups (FFG) synonymous to Field Farmer Schools</li> <li>• Serves as a platform for extension service providers generate and share knowledge</li> <li>• Promotes certification of agriculture products and establishment of markets for organic products</li> </ul>	<ul style="list-style-type: none"> <li>• Market differentiation for organic products as incentive to engage in organic farming</li> <li>• Conflicts from conventional farming practices being promoted to meet the increasing market</li> </ul>	<ul style="list-style-type: none"> <li>• Promotion of best practices in organic farming that reduce shifting cultivation</li> <li>• Promotion of environmental conservation including integrated farming and ecological principles</li> <li>• Policy advocacy on biodiversity conservation in the agriculture sector</li> </ul>

Power/Interest Matrix <sup>26</sup>		
High Power	<b>Group 1: High Power/Low Interest</b> <ul style="list-style-type: none"> <li>• Non Conservation MDAs – Finance &amp; Planning; Labour, Economic Affairs and Investment; Trade and Industrial Development; Infrastructure, Communication and Transport, Energy &amp; Mining</li> <li>• Financial Agencies (MDAs) -</li> </ul>	<b>Group 2: High Power/High Interest</b> <ul style="list-style-type: none"> <li>• Zanzibar Government (MDAs with Conservation mandates) – Agriculture, Irrigation, Natural Resources and Livestock; Tourism and Heritage; Blue economy and Fisheries</li> </ul>
	<b>Group 3: Low Power/Low Interest</b> <ul style="list-style-type: none"> <li>• Non Conservation MDAs – Policy and Coordination</li> </ul>	<b>Group 4: Low Power/High Interest</b> <ul style="list-style-type: none"> <li>• Private sector</li> <li>• Development Partners</li> <li>• NGO/Civil Society focusing on biodiversity conservation</li> <li>• Research and Academic institutions</li> </ul>
Low Power	Low Interest	High Interest

## 5.2 Biodiversity Finance-Related Capacities and Needs in Priority Organization

In the analysis of stakeholders, it was noted that MDAs and LGAs require adequate capacity to lead planning and influence biodiversity budgeting in respective plans. It also indicated the need for key institutions responsible for guiding and approving investments both national and private being well capacitated to address biodiversity aspects in investment projects. It is imperative that there is adequate capacity development

including placements of adequate and skilled staff to facilitate planning and implementation of biodiversity interventions based on the national development agenda as promoted in the in among others, the national Development Vision 2050, MKUZA IV (under review) and the Blue Economy. This would go also with creation of awareness on biodiversity value at all levels. Table 16 summarizes organizational capacity needs to design, initiate, and scale out biodiversity finance solutions.

**Table 16: Organizational capacity needs to design, initiate, and scale out biodiversity finance solutions**

Institution	Mandate	Key capacity areas for effectiveness and ability to design and scale out biodiversity finance solutions
President's Office - Finance and Planning		<ul style="list-style-type: none"> <li>• Awareness on the value of biodiversity in sustainable development</li> <li>• Establishing biodiversity value in the national accounting</li> <li>• Map, screen and repurpose harmful subsidies to biodiversity</li> </ul>
Department of External Finance	Manages funding from external sources (Bilateral, Multilateral) including grants, loans intended for the general budget support or direct project funding	<ul style="list-style-type: none"> <li>• Engagement with DPs, negotiation on framework agreements on biodiversity related programmes</li> </ul>
Planning Commission	Overseeing implementation of ZSGRP III, issuance of Planning and Budget Guidelines to guide mobilization and allocation of financial resources for the implementation of Annual Development Plans and Budget	<ul style="list-style-type: none"> <li>• Inclusion of biodiversity in national development priorities</li> </ul>

<sup>26</sup> BIOFIN Workbook 2018

Institution	Mandate	Key capacity areas for effectiveness and ability to design and scale out biodiversity finance solutions
Budgeting Commission	Planning and budget based on national prioritizes	<ul style="list-style-type: none"> <li>Inclusion of biodiversity financing in the Planning and Budget Guidelines</li> </ul>
Tanzania Revenue Authority	Manages the assessment, collection and accounting of all central government revenues	<ul style="list-style-type: none"> <li>Design of retention /earmarking schemes for biodiversity conservation is in collaboration with Planning Commission under the President's Office - Finance and Planning</li> </ul>
Zanzibar Revenue Board	Administers taxes including collection of all government revenues	<ul style="list-style-type: none"> <li>Synergies with private sector for revenue related incentives on biodiversity investments</li> </ul>
Zanzibar Investment Promotion Authority (ZIPA)	Promotion and regulation, and administration of investment activities through the Zanzibar Investment Promotion and Protection Authority Act	<ul style="list-style-type: none"> <li>Developing incentives on biodiversity investments</li> </ul>
People's Bank of Zanzibar	Oversees the monetary policy, including regulation and supervision of commercial banks and financial institutions.	<ul style="list-style-type: none"> <li>Awareness on the value of biodiversity in sustainable development;</li> <li>Establishing biodiversity value in the national accounting – GDP</li> <li>Establish green finance framework for the banking sector</li> </ul>
<b>Ministry of Tourism and Heritage</b>		
Department of Tourism	Oversees and coordinate tourism in Zanzibar aiming for sustainable tourism development	<ul style="list-style-type: none"> <li>Awareness on the value of biodiversity in sustainable tourism development</li> <li>Establishing biodiversity value in sustainable tourism;</li> <li>Provide incentives for eco- tourism, green tourism</li> </ul>
Department of Heritage	Ensures preserving Zanzibar's heritage mainly the fragile historic, cultural and natural attractions including the coastal biodiversity forms	<ul style="list-style-type: none"> <li>Establishing the value of biodiversity as a natural asset</li> <li>Develop and implement sustainable financing strategy for natural attraction</li> </ul>
Zanzibar Commission for Tourism	Promotes tourist destination and licensing and monitoring of tourism activities, through promotion of Zanzibar as a unique destination including sand beaches and pristine coastal and marine environment, the flora and fauna	<ul style="list-style-type: none"> <li>Establishing biodiversity value in the tourism</li> </ul>
Zanzibar Association of Tourism Investors (ZATI)	Advocates for a sustainable and responsible tourism and represents the interests of all tourism investors in Zanzibar	<ul style="list-style-type: none"> <li>Establishing biodiversity value in the tourism</li> <li>Development of sustainable tourism</li> <li>Biodiversity products development and marketing</li> </ul>
Zanzibar National Chamber of Commerce, Industry and Agriculture	Serves as an umbrella organization for coordinating trade in industry and agriculture	<ul style="list-style-type: none"> <li>Establishing biodiversity value/contribution in the respective investments</li> </ul>
<b>Ministry of Lands and Housing Development</b>		
Lands Department –Urban and Rural Planning	Responsible for sustainable Land use management based on environmental impact considerations	<ul style="list-style-type: none"> <li>Land use plans that include preservation of fragile ecosystems, biodiversity hotspots</li> </ul>

Institution	Mandate	Key capacity areas for effectiveness and ability to design and scale out biodiversity finance solutions
<b>Ministry of Water, Energy and Mining</b>		
Water Resources Management Department	Responsible for water resources management and supply, including water catchment's areas, improved Management and conservation of wetlands, also prevention and reduction of pollution of the marine and coastal waters in Zanzibar	<ul style="list-style-type: none"> <li>• Development of viable PES options in the water resources management</li> </ul>
Zanzibar Electricity Corporation (ZECO)	Oversees and coordinates energy development in Zanzibar including development of alternative energy sources, and promotion of sustainable renewable energy resources.	<ul style="list-style-type: none"> <li>• Development of viable offsets and safeguards in energy related infrastructure development</li> </ul>
<b>Ministry of Agriculture, Irrigation, Natural Resources and Livestock</b>		
Department of Forestry and Non-Renewable Natural Resources	Responsible for sustainable forest management including the terrestrial forest reserves that harbour wildlife in core protected areas and Community Forest Management Areas (CoFMAs) as buffer /or corridor areas	<ul style="list-style-type: none"> <li>• Efficiency in collection and management of revenues from forests including re-investments in biodiversity</li> </ul>
Department of Agriculture	Promotes sustainable agriculture practices, works to minimize encroachment in public lands, forests, woodlands, wetlands and pastures; and maintenance of biological farmlands uses	<ul style="list-style-type: none"> <li>• Development of smart agriculture</li> <li>• Crop value chain improvement</li> <li>• Provide incentives for sustainable agriculture practices and eco products</li> </ul>
<b>Ministry of Blue Economy and Fisheries</b>		
Department of Fisheries and Mariculture	Facilitates sustainable fisheries in Zanzibar including policy development, regulation and protection of marine ecosystems, marine protected areas (MPAs) and endangered species	<ul style="list-style-type: none"> <li>• Implementation of key flagship programmes identified in the ZSGRP III such as the development deep sea fishing and mariculture/aquaculture.</li> <li>• Efficiency in collection and management of revenues from fisheries licencing including re-investment in biodiversity</li> </ul>
Zanzibar Fisheries Company (ZAFICO)	Conducts deep sea fishing activities in the EEZ zone while supporting development of industrial fishing infrastructure and services including cold storage and processing facilities.	<ul style="list-style-type: none"> <li>• Implementation of the Fisheries Policy and Strategy on deep sea fishing, development of fishery infrastructure and services for industrial fishing.</li> </ul>
Department of Marine Conservation Areas	Facilitates sustainable regulation and protection of marine ecosystems, marine protected areas (MPAs) and endangered species	<ul style="list-style-type: none"> <li>• Implementation of Marine Conservation Unit Regulations and protection of the MPAs.</li> </ul>
Department of Blue Economy Development and Coordination (including Oil and Gas)	Coordinates the implementation of the Blue Economy policy and strategic framework across ocean economy-based sectors such as in fisheries, energy, oil and gas, maritime transport, sustainable tourism, ocean research, etc.	<ul style="list-style-type: none"> <li>• Implementation of the Blue Economy Policy objectives.</li> </ul>

Institution	Mandate	Key capacity areas for effectiveness and ability to design and scale out biodiversity finance solutions
<b>First Vice-President's Office</b>		
Department of Environment	Oversee and coordinates all matters related to environmental management and climate change and incorporate also biodiversity aspects and the planned Zanzibar National Biodiversity Strategic and Action Plan (ZNBSAP)	<ul style="list-style-type: none"> <li>• Fundraising strategy for ZBSAP;</li> <li>• Accessing global Biodiversity related finances – GEF, CBD, REDD+</li> </ul>
Zanzibar Environmental Management Authority (ZEMA)	Regulates all environmental impact assessments and oversees mitigation plans in associated investments	<ul style="list-style-type: none"> <li>• Efficiency in collection and management of fees and taxes from environmental related investments/development such as EIA mitigation and offsets;</li> </ul>
Tanzania Meteorological Authority (TMA) Zanzibar Branch	Provision of meteorological information	<ul style="list-style-type: none"> <li>• Resources mobilization for environment and climate change data collection and dissemination</li> </ul>
<b>Research and Academia</b>		
Zanzibar Agriculture Research Institute	Undertaking agriculture research	<ul style="list-style-type: none"> <li>• Integration in land uses</li> </ul>
Institute of Marine Sciences – IMS	Undertaking research and practical training in marine sciences	<ul style="list-style-type: none"> <li>• Resources mobilization for biodiversity related research and training</li> </ul>
State University of Zanzibar (SUZA)	Undertaking research and training	<ul style="list-style-type: none"> <li>• Resources mobilization for biodiversity related research and training</li> </ul>
<b>NGO/Civil Society</b>		
CARE International	Supports participatory natural resources management in protected areas (forests - Ngezi, Jozani), development of IGAs and benefit sharing mechanisms	<ul style="list-style-type: none"> <li>• Partnerships and synergistic strategic biodiversity conservation programmes</li> </ul>
WWF	Supports forests, coastal and marine, fisheries management	<ul style="list-style-type: none"> <li>• Development and implementation of integrated Long-term programmes</li> </ul>
WCS	Supports wildlife management including birdlife and endangered species	<ul style="list-style-type: none"> <li>• Partnerships and synergistic strategic biodiversity conservation programmes</li> </ul>
WIOMSA	Supports research in marine and coastal resources in Zanzibar	<ul style="list-style-type: none"> <li>• Fundraising to support research and conservation projects</li> </ul>
Conservation Corporation Africa - CCA	Supports ecotourism enterprise development	<ul style="list-style-type: none"> <li>• Resources mobilization for biodiversity conservation</li> </ul>
Jozani Environmental Conservation Association – JECA	Carries out a number of activities in conservation education and forest protection.	<ul style="list-style-type: none"> <li>• Resources mobilization for biodiversity conservation</li> </ul>
JUMIJAZA	Coordinate, supervise and facilitate Carbon Finance and coordinate the CoFMAs functions	<ul style="list-style-type: none"> <li>• Resources mobilization for biodiversity conservation</li> </ul>
UWAMWIMA	Facilitates capacity building in production and marketing of organic farming	<ul style="list-style-type: none"> <li>• Resources mobilization for biodiversity conservation</li> <li>• Integration across sectors</li> </ul>



## 6. CONCLUSION AND RECOMMENDATIONS

### 6.1 Overall Conclusions

Tanzania is one of the global biodiversity rich countries forming party to the CBD since 1996. Zanzibar which forms part of the URT is tasked with a challenge of preserving its island biodiversity. It has thus engaged the BIOFIN program since 2018. While the country has various policy/legal/regulatory frameworks, strategies and programs, and also government, NGO and private institutions mandated and playing roles in protecting biodiversity, there are still several challenges that contribute to negative biodiversity and ecosystem trends. Key direct threats and drivers to Zanzibar's biodiversity are grouped in five categories: i) habitat conversion, loss, degradation and fragmentation of natural ecosystems; ii) over-exploitation of natural resources and biodiversity; iii) invasive species; iv) environmental pollution; and v) climate change.

While the URT has its National Biodiversity Strategy and Action Plan (NBSAP 2020) that serves to demonstrate the country's strategies for biodiversity management, it does not comprehensively address Zanzibar's unique island ecosystem and biodiversity priorities. Zanzibar is thus developing a specific Zanzibar Biodiversity Conservation Strategy and Action Plan (ZBSAP) to address the challenges of biodiversity management in the island that correspond to the Tanzania's NBSAP process.

In the absence of a unique NBSAP specificities for Zanzibar, the BIOFIN methodology thus builds on various national strategies and plans including the newly launched ZDV50, the Blue Economy Policy (2020), the Five-Year Development Plan (2020 – 2025) and specific sector policies and strategies.

The PIR process for Zanzibar shows that the country has several policies and legal frameworks in place for the conservation of biodiversity. Banking on the identified positive biodiversity and ecosystem trends, the PIR highlights those trends recommends promoting/enhancing the same with appropriate finance solutions. Some examples include the establishment and management of core protected areas, co-management and participation of communities and private sector and access and benefits sharing mechanisms of revenues generated from the tourism and related activities in the protected areas.

This review also indicates existing biodiversity finance solutions that include National and Local Government budgets which constitute the principal biodiversity financing sources from the public sector, donor funding, technical and in-kind biodiversity conservation from NGOs, communities as well as the private sector. Various revenues sources from biodiversity related products and services are also in place supported with respective legal frameworks such as tourism, forests and marine.

### 6.2 Recommendations

The key recommendations are grouped into three categories on: conservation; access and benefits sharing; and sustainable use (Tables 17-19). The recommendations are geared to enhance, improve, amend or modify existing policies and practices to achieve positive and prevent negative biodiversity and ecosystem status and trends.

#### ***6.2.1 Strengthening mainstreaming biodiversity into policies, strategies and sustainable development frameworks***

**Table 17: Recommendations on strengthening mainstreaming biodiversity into policies, strategies**

Biodiversity conservation Integration into policies and strategies	Entry point and responsible agencies
<p>a. Implement a more efficient approach to promote conservation through integrating conservation objectives in the overall economic policies and development planning. A landscape/integrated resources management should be supported to synchronize policy approaches. This will help do away with:</p> <ul style="list-style-type: none"> <li>• Isolated efforts used in integrating biodiversity into specific public institutions</li> <li>• Address biodiversity loss which is partly driven by the diversification and sectoral planning approach in landscapes and seascapes.</li> <li>• Inadequacy in mainstreaming or integrating biodiversity in sector specific plans and strategies that opens up room for institutional overlaps, inefficient resources planning and use.</li> </ul>	<ul style="list-style-type: none"> <li>• The planned Zanzibar Biodiversity Conservation Plan that will indicate biodiversity priorities in the respective sectors to be coordinated by the DoE under the First Vice President's Office</li> </ul>
<p>b. Facilitate capacity building coordinated by the Department of Environment (DoE) under the First Vice President's Office (FVPO) that also oversee and coordinate climate change matters. Strengthening of biodiversity governance as part of the National CBD structures in Zanzibar would improve development of programs to access external financing from respective global windows.</p>	<p>Existence of structures that provide for biodiversity conservation i.e. DoE, Department of Tourism and Department of Fisheries and Mariculture</p>
<p>c. Review policies to identify priorities to be incorporated in the respective policies and strategies. This will help the President's Office - Finance and Planning (PO-F&amp;P) to apply Planning and Budgeting tools for resource mobilization and result based budgeting through allocation to biodiversity financing. Most biodiversity related policies reviewed in the PIR indicated limited and inexplicit biodiversity strategies which would form a basis for prioritization in national planning and budgets</p>	<p>the President's Office - Finance and Planning will be responsible to integrate this approach in the budget planning process</p>
<p>d. Biodiversity valuation to inform the limited knowledge on the economic value of biodiversity products and services to address the limited financing for biodiversity as demonstrated from respective plans and budget allocation and encourage conservation. Key biodiversity-related government sectors (Fisheries, Forestry, Wildlife, Marine, Environment, and State University of Zanzibar (SUZA) will be involved in the valuation exercises. Zanzibar Blue Economy or the First Vice President's Office (FVPO) will lead the valuations process.</p>	<ul style="list-style-type: none"> <li>• National Development Vision 2050 and the Zanzibar Blue Economy that expound the importance of Biodiversity in the social economic development</li> </ul>
<p>e. Facilitate development of the national Biodiversity Strategy and Action Plan (ZBSAP) with costable actions to address the recently launched macro policies (Vision 2050), the Blue Economy Policy and the Five-Year Development Plan (2020 – 2025) which is an opportune time to align biodiversity sector priorities with broader national development policies, planning and expenditure frameworks.</p>	<ul style="list-style-type: none"> <li>• The planned Zanzibar Biodiversity Conservation Plan</li> </ul>
<p>f. Tracking biodiversity funds available both within internal and from external sources and developing synergies with other relevant funds</p>	<ul style="list-style-type: none"> <li>• Climate change Financing Mechanism and Action Plan</li> <li>• Tourism Fund</li> <li>• Debt for Nature Swaps</li> </ul>
<p>g. Facilitate implementation of biodiversity conservation initiatives including priorities identified in the planned national Biodiversity Strategy and Action Plan (ZBSAP)</p>	<ul style="list-style-type: none"> <li>• Existing Climate change Financing Mechanism</li> <li>• The Tourism Fund</li> </ul>

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**Biodiversity conservation Integration into policies and strategies** **Entry point and responsible agencies**


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- h. Enhance resource mobilization and budget allocation including development of Fundraising/resources mobilization strategy to finance the planned ZBSAP. This would also involve review of legal frameworks that provide for charges and fees from different sources and explore new sources of revenue
- i. Through the PO-F&P, review the Planning and Budget Guidelines to incorporate specific codes for biodiversity conservation as the current Guidelines do not include special instructions to MDAs and LGAs on prioritizing biodiversity under the special instructions. The Guidelines do not also provide specific biodiversity code which makes it difficult to allocate and track specific biodiversity budgets and expenditures.
- Allocation of funding for biodiversity through sector plans by PO-F&P
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### 6.2.2 Support participatory biodiversity resources conservation

**Table 18: Recommendations on Supporting participatory biodiversity resources conservation**

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**Promoting alternative livelihood options**


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Natural resources in Zanzibar support a wide range of community livelihood and wellbeing resulting in negative pressures contributing to degradation of these resources such as fish stock, corals, seagrass, seabed marine ecosystems and mangroves. Most biodiversity ecosystems are affected by encroachment resulting from the close proximity of communities to the protected areas or fragile ecosystems.

- It is imperative to promote alternative livelihood options related to forests, marine and coastal resources utilization such as beekeeping, aquaculture, seaweed farming and ecotourism.
  - Facilitate establishment of 'buffer zones' around the Protected Areas where communities could implement conservation related activities geared towards generating subsistence incomes from the natural resources within these buffer zone areas to reduce encroachment into core protected areas.
  - Engage communities in providing surveillance in and around the protected areas in collaboration with respective public agencies with commensurate incentives for their participation.
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**Entry point and responsible agencies**


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- CoFMAs and community fisheries management opportunities that provide implementation of IGA sharing of benefits
  - Scaling up of opportunities within CoFMAs and co-management around MPAs under the DFNR and Department of Fisheries and Mariculture
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### 6.2.3 Strength private sector engagement in sustainable conservation of biodiversity resources

**Table 19: Recommendations on private sector engagement**

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**Support private sector engagement**


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- a. Strengthen the private sector engagement especially in tourism and energy development that directly or indirectly support or benefit from biodiversity products and services. Also, oil and gas industries that have a negative impact have a responsibility to fully compensate for environmental damages. While some efforts have been made including development of policies related to investments and safeguards, opportunities for Public Private Partnerships have not been fully explored.
- Enhanced private sector engagement would facilitate some biodiversity finance solutions including the Corporate social responsibility from numerous investments in tourism.
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**Entry point and responsible agencies**


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- Regulations that include compensation based on off set, where such examples have worked well in Kenya and Uganda.
  - Incentives for sustainable investments in tourism development
  - Provisions for revenue collection that could be re-invested in biodiversity conservation as currently most fees, tax collected are channelled through the central Treasury are not necessarily re-invest into biodiversity
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Support private sector engagement	Entry point and responsible agencies
<ul style="list-style-type: none"> <li>• Support adoption of eco-labelling for key biodiversity-related products, agricultural produces and tourism investments such as hotels in biodiversity-rich areas.</li> <li>• Put in place and implement Biodiversity offsets to compensate for biodiversity loss arising from private developments could be applied as currently there is no evidence on how they are captured and re-invested in promoting sustainable fishery and responsible tourism.</li> <li>• Implementing conservation and environmental conservation tools such as EIAs mitigation for biodiversity offsets particularly in the biodiversity rich coastal/marine and terrestrial ecosystems is an area that would constitute an opportunity for biodiversity finance solution</li> </ul>	<ul style="list-style-type: none"> <li>• Emerging opportunities for eco-labelling</li> <li>• biodiversity offsets framework and appropriate regulations</li> </ul>
<p>b. Promoting Payment for Ecosystem Services (PES) as one of the mechanisms studied and recommended to address inadequate funding in biodiversity conservation. PES could be an opportunity targeting the coastal-fishery dependent communities as service providers to be engaged in protection and conservation of coastal and marine habitats such as mangroves, seagrass and coral reefs and nature-based developers such as tourism being the users of the services. PES would be applied to tap 'payment' from the beneficiaries with the objective of such payment being channelled towards funding biodiversity related activities implemented by service providers.</p>	<ul style="list-style-type: none"> <li>• CoFMAs and fisheries co-management</li> <li>• Corporate Social responsibility from the private sector what is the entry point for REDD+ in Zanzibar</li> </ul>
<p>c. Facilitating REDD+ initiatives as biodiversity finance solution</p>	
<p>d. This would also assist in setting/review revenues and taxes from biodiversity related resources and also justify re-investment of the same in conservation programmes.</p>	<ul style="list-style-type: none"> <li>• Regulations that provide for revenue collection under i.e. through MPAs, biosafety,</li> </ul>

## 7. TECHNICAL APPENDICES



## 7.1 Policies, Laws and Regulations Reviewed

Sector	Policy	Legal framework	Strategy/Action Plan
Finance and Planning	National Development Vision 2050		Zanzibar Strategy for Growth and Reduction of Poverty III
Blue Economy	Blue Economy Policy of Zanzibar		Blue Economy Strategy (currently being developed)
Environment and Climate change	Zanzibar Environmental Policy (2013) Disaster Management Policy (2011)	Zanzibar Environmental Management Act No.3 (2015)	Zanzibar Climate Change Strategy (2014-2020) and Action Plan (2016-2021) Zanzibar Integrated Solid Waste Management Strategy (2019) Zanzibar Marine Oil Spill Response Contingency Plan (2019)
Lands	Zanzibar Land Policy (2018)		National Land Use Plan (1995)
Forest	Zanzibar Forest Policy (1996)	Forest Resources Management and Conservation Act No. 2 (1996)	
Agriculture	Agricultural Sector Policy of Zanzibar The Agricultural Marketing Policy (2012) Food Security and Nutrition Policy (2008)		
Regional Administration and Local Government	Zanzibar Local Government Policy (2012)	Regional Administration Act (2014) Local Government Authority Act (2014)	
Tourism	Zanzibar Tourism Policy		
Fisheries	Fisheries Policy (2014)	Marine Conservation Unit Regulations 2014	The Fisheries Governance Strategy (2014) Zanzibar Maritime Strategy (2019) Zanzibar Maritime Authority Strategic Plan (2016 – 2021)
Water	Water Policy (2004)		
Oil and Gas		Zanzibar Oil and Gas (Upstream) Act 2016	
Industries and Trade	Zanzibar Industrial Policy (2019) Trade Policy (2006) Zanzibar Investment Policy (2007) Zanzibar Employment Policy (2008)		
Education	Education Policy (2006)		
Energy	Zanzibar Energy Policy (2019)		
Livestock	Zanzibar Livestock Policy (2009)		

Main Policies, Legislation	Main features/ Functions	Responsible Agency
Zanzibar Development Vision 2050 (ZDV50)	<p>Zanzibar Development Vision 2050 (ZDV50) serves as a long-term national development plan to guide Zanzibar’s overall development agenda from the year 2020 to 2050. It aspires to lift Zanzibar to an Upper-Middle Income country by 2050 and contributing to international commitments including Agenda 2030 for Sustainable Development and the Sustainable Development Goals (SDGs) and the African Union Agenda 2063. Key aspirations include transforming agriculture embracing sustainable and climate resilient production in fisheries, aquaculture as well as marine and forestry products. The Vision, will be realized through among other strategies, the Blue Economy Policy.</p> <p>Pillar IV of the Vision focuses on Governance and Resilience including aspirations on effective land laws and policies that observe environmental conditions, sustainable land recycling and reclamation interventions to increase land for use and reserve. It also pursues a comprehensive green and blue development through sustainable management of ENR and climate resilience and reduced pollution and environmental degradation. ZDV50 notes that sustainable management of the environment and natural resources as well as improved climate resilience is critical for economic development. Seven aspirations are highlighted in the Vision as summarized in Box 2.</p>	Planning Commission under the PO-F&P
Zanzibar Strategy for Growth and Reduction of Poverty III (ZSGRP III), MKUZA III, 2017)	<p>The Zanzibar Strategy for Growth and Reduction of Poverty III (ZSGRP III) popularly referred to as MKUZA III, 2017) includes biodiversity as part of environmental sustainability among its five key result areas (Box 3), focusing specifically on improving gender-responsive environmental measures<sup>1</sup>. The strategy also links to the United Nations Agenda 2030 and the Sustainable Development Goals (SDGs).</p> <p>Result Area D on attaining environmental sustainability and climate resilience emphasizes that marine and terrestrial ecosystems will be protected and restored, to reduce biodiversity loss including among other approaches promoting sustainable use of marine and terrestrial resources. This is expected to be realized through three specific Outcomes: (i) improving gender-responsive climate change adaptation and mitigation measures, (ii) marine and terrestrial ecosystems protection and restoration, with reduced biodiversity loss, and (iii) environmental degradation prevention, with reduced environmental and social risks of economic activities. The Strategy stresses that conservation remains a priority area that will require significant improvement, including conservation of coral reefs and forests.</p>	PO-Planning Commission

<sup>27</sup> Zanzibar Strategy for Growth and Reduction of Poverty (2016-2020)

Main Policies, Legislation	Main features/ Functions	Responsible Agency
Zanzibar Blue Economy Policy (2020)	The National Blue Economy Policy (2020) gears on development of blue economy as a growth generator to enhance employment and poverty reduction. This policy defines the four key areas, namely fisheries and aquaculture; marine trade; sustainable marine tourism and energy, mainly the renewable energy and Oil and Gas. The Blue economy specifically implements SDG 14 and aspires developing sustainable marine tourism and sustainable exploitation of marine-related resources and products. Zanzibar's Blue Policy promotes effective utilization of maritime resources through integration of ocean economy in the overall country development. The Policy translates the relevant ZDV50 aspirations to effectively coordinate and manage development of the ocean and its endowments through both its territorial waters and the Exclusive Economic Zone (EEZ).	Ministry for Blue Economy and Fisheries
Agricultural Marketing Policy (2012)	The Policy underlines the need to stimulate agro processing and value addition to reduce waste and broaden livelihood. Strategies for this policy will stimulate improved production that will reduce the shifting cultivation that has been one of the drivers for habitat destruction.	DoA
Agricultural Sector Policy of Zanzibar (2003)	The overall goal for Zanzibar Agriculture Sector Policy is to promote sustainable development of the agricultural sector as the main cornerstones of ZSGRP III. It promotes integrated and sustainable use of natural resources through adoption of environmentally friendly technologies and practices. The policy promotes agricultural land use patterns to promote optimal uses of lands and minimise conflicts among the various users of lands. It includes strategies to educate the public on environmental protection and conservation, promote agro-forestry practices and intensify genetic resource conservation programmes. Relative to the other sectors, agriculture is currently placed in priority number three of the total government expenditure annually. BIOFIN financing strategies that form entry point are those related to promotion of practices on conservation and partnership with development partners and increase government budget allocation to the sector.	Department of Agriculture – DoA, Ministry of Agriculture, Irrigation, Natural resources and Livestock
Climate change Policy framework	Like the URT, Zanzibar has no specific Climate change policy. However, Climate change issues are governed by other relevant specific policies, sector legal frameworks and strategies described in this matrix including the Zanzibar Environmental Policy (1992) updated 2013, Zanzibar Environmental Management Act (1996) updated (2015), and the Environmental Management for Sustainable Development Act No. 2 of 1996.	Department of Environment

Main Policies, Legislation	Main features/ Functions	Responsible Agency
Disaster Management Policy (2011)	The focus of this policy is on disaster risk reduction and livelihoods support. It aims to develop the required national capacity to coordinate and collaborate on comprehensive disaster management programs among the principal players. The policy notes key issues as being erratic rainfall patterns, food shortages, terrestrial and marine degradation, depletion of mangrove forests, and waste management. These issues form key synergies with some of the identified BIOFIN drivers.	
Education Policy (2006)	Education policy recognises the necessity of incorporating environmental education in capacity development programmes that include environmental management and conservation of land, water and air. Environmental education focuses also on the preservation of forests, beaches, coral reefs and hazards of environmental pollution which is key biodiversity conservation. This is an entry point to BIOFIN solutions related to capacity building.	Ministry of Education and Vocational Training
Employment Policy (2008)	Employment Policy acknowledges the role of agriculture and natural resources as an important source of employment to the rural community and livelihoods. The Policy emphasizes private sector investment in production and marketing of traditional and non-traditional products to increase income and employment opportunities that will reduce degradation of natural resources.	PO-Labour, Economic Affairs and Investment
Zanzibar Energy Policy (2019)	The Zanzibar Energy Policy (2019) focuses on providing guidance on formulation of comprehensive energy prices and taxes/levies to ensure financial and economic sustainability; ensuring reliable and guaranteed energy supplies to cushion the economy from external and internal disruptions of supply and price fluctuations. It also aims to develop and utilize existing and potential energy resources in the country sustainably; provide incentives on energy conservation and increase energy efficiency; raise the efficiency of energy use including energy technologies and equipment and develop the necessary institutional and manpower capabilities by introducing appropriate incentive measures and undertaking energy development programs. It also supports other economic sectors to meet their development objectives by putting in place a clearly defined energy policy. The main priorities in the new Policy include placing high priority on development and use of indigenous energy sources such as renewable energy and fossil fuel resources which is currently under exploration; ensuring gradual transition from traditional energy fuels to modern fuels. It also focuses on developing and publicizing standards and codes to ensure efficient energy use and developing human resources and integrated energy institutions. On partnerships, the Policy provides a framework for private sector support, investment framework and incentives to participate in the development of the country's energy resources. The Policy pays attention to ecological and environmental safeguards in development of energy projects.	Ministry of Water, Energy and Mining

Main Policies, Legislation	Main features/ Functions	Responsible Agency
Fisheries Policy, 2014 and the Fisheries Governance Strategy (2014)	<p>The policy guides management of the fisheries in Zanzibar including establishment and management of Protected Areas as a major biodiversity management strategy including marine and coastal areas. The Policy has been translated to key flagship programmes identified in the ZSGRP III that form an entry point for BIOFIN including development in deep sea fishing and mariculture/aquaculture to preserve unique marine biodiversity.</p> <p>The Fisheries Governance Strategy (2014) facilitates application of good governance principles to reach the general objectives stated in the Vision 2050 and MKUZA III. It provides policy guidance on the fishery sector in Zanzibar, including improving the overall governance framework (legislation, regulation, planning, institutions and management). The Strategy promotes establishment and management of Protected areas as a major biodiversity management strategy for marine and coastal areas. The Governance Strategy as well establishes participatory fisheries management structures including local level fisheries management committees (Shehia Fishermen's Committee). The Strategy brings together public and private institutions that have direct or indirect responsibility in the management of sustainable fisheries, coral reefs, marine conservation areas building consensus on fisheries management and implementation under environmental and sustainability safeguards. The different categories identified in the Strategy include central and local government authorities, NGOs, private sector, academic and research institutions. Key flagship programmes identified in the ZSGRP III form part of the implementation strategies mainly on development in deep sea fishing and mariculture, aquaculture to preserve unique marine biodiversity that are under threat from destructive fishing.</p>	Department of Fisheries
Food Security and Nutrition Policy (2008)	<p>The Policy acknowledges the role of agriculture including natural resources related products as an important source of protein and income generation for rural and peri-urban communities who rely on extraction of natural resources for subsistence. The policy states that increased food and nutrition security is largely dependent on sustainable development and diversification of income and livelihood options that are usually linked to natural resources and habitats that harbour biodiversity.</p>	Ministry of Agriculture, Irrigation, Natural Resources and Livestock
Zanzibar Industrial Policy (2019)	<p>The new Zanzibar Industrial Policy's vision is to see that Zanzibar becomes a hub for production of agro, marine and light manufacturing with high value products to sustain the local economy, and providing income and employment while preserving the archipelago's pristine environment and culture. The policy targets specific and critical areas of intervention including agriculture, infrastructure facilities and investment incentives relevant to industrial development. The implementation strategy for this Policy identifies key</p>	Ministry of Trade and Industrial Development



Main Policies, Legislation	Main features/ Functions	Responsible Agency
	stakeholders particularly the private sector and the PPP opportunities. The policy proactively promotes a thriving and sustainable agro-, blue economy, light manufacturing and emerging industries by ensuring a more enabling business environment and the engagement of investors to the extent that businesses in the industrial sector are competitive, profitable, inclusive and environmentally safe.	
National Forestry Policy of Zanzibar (1996) and the Forest Resources Management and Conservation Act No. 2 of 1996	The Forestry Policy of Zanzibar and the Forest Resources Management and Conservation Act are the main policy and legal tools for sustainable forest management including the terrestrial forest reserves that harbour wildlife as well, mangroves and coastal forests. The policy guides biodiversity conservation in the core protected areas and Community Forest Management Areas (CoFMAs) that buffer the PAs and in corridor areas. Specific interventions directed by the policy include undertaking biodiversity assessments mostly for the high value forests, improving the management of remnant/degraded forests, establishment and expanding the CoFMAs, undertaking land use plans and enhancing tourism avenues.	Department of Forestry and Non-Renewable Natural Resources (DFNR)
Zanzibar Land Policy (2018)	The Zanzibar Land Policy framework integrates environment into social and economic development policy framework while providing transparent and easy access to land for all. The Policy stresses protection of environment, cultural heritage and sustainable use of natural resources in the terrestrial and coastal domains in Zanzibar. The Policy also addresses the challenges of climate change and related consequences of natural disasters, food shortage, and recognize the trend of rapid urbanization as a major challenge on environment and biodiversity carrying capacity to sustain future living and livelihoods. The Policy creates directives for land administration and provides for liberal methods of acquisition of land or right of use of land and promotion of sustainable land-use practices to reduce degradation of natural resources.	Ministry of Lands and Housing Development
National Land Use Plan (1995)	The land use is embraced in other related policies including agriculture as a major land user. RGoZ has however developed the National Land Use Plan that guide diversification of land uses including the coral rag areas and areas along the shore. The plan promotes extensive utilization of coral land.	Ministry of Lands and Housing Development
Tourism Policy	Provides a tourism vision that hinges on protection and conservation of fragile ecological systems including marine underwater scenery and key biodiversity related attractions such as diving, game fishing and snorkelling. It stimulates participation of local people of the tourism development that provide an alternative source of income for local communities and also promotes public/private partnership in tourism sector. Key policy strategies that form an entry point to BIOFIN are (i) enforcing and implementing Environmental Impact Assessment (EIA), Environmental Statement (ES) for tourism development, and (ii) creating zones to encourage establishment and management of MCAs that support enforcement of regulations and	Department of Tourism- Ministry of Tourism and Heritage

<sup>27</sup> Zanzibar Strategy for Growth and Reduction of Poverty (2016-2020)

Main Policies, Legislation	Main features/ Functions	Responsible Agency
	restrictions on biodiversity. To promote the tourist image of Zanzibar, the Policy upholds conserving the natural ecological systems and attraction features. On financing, the policy provides entry points for re-investment of public profits from tourism to sustain its growth	
Trade Policy (2006) <sup>2</sup>	The Zanzibar trade policy emphasizes community-based development approach with a view to encourage social cohesion in investment, increased local involvement in nation building and adoption of modern practices and systems. The policy also calls for improvement in both the public and private sector performance. The establishment of the Zanzibar Bureau of Standards (ZBS) gives an opportunity to ensure management of biodiversity related products and services.	Ministry of Trade and Industrial development
Water Policy (2004)	The policy recognizes the importance of environmental considerations in the development and implementation of water resources management in Zanzibar. Issues related to forests as key habitats in the catchments are not fully articulated to create opportunity for biodiversity management in relation to water issues except the wetlands.	Ministry of Water, Energy and Mining
Zanzibar Environmental Policy 2013	The policy provide direction on overall and sector specific policies in relation to biodiversity conservation. The policy recognises the link between health ecosystems and natural resources and sustainable development. For marine and coastal environment, the policy promotes integrated coastal zone management, monitoring of environmental pollution and degradation of natural vegetation. The policy promotes engagement of the private sector in sustainable tourism that ensures conservation of biodiversity (flora and fauna). The policy promotes environmental sustainability for balanced consumption and regenerating capacity of ecosystems, without diminishing biological diversity by human actions.	Department of Environment under the First Vice President's Office
Zanzibar Environmental Management Act (2015)	Zanzibar Environmental Management Act No. 3 (2015) is the legal framework that guides environmental governance, management, and enforcement in Zanzibar including biodiversity conservation. Zanzibar is very reliant on coastal, marine and terrestrial ecosystem services that underpin its unique tourism and sustenance for the livelihoods. The Act addresses environmental governance, integrated coastal zone management, response to environmental emergency, application of environmental impact assessment tools, climate adaptation, conservation of biodiversity through the protection of coastal and marine resources and prevention of deforestation. It also sets safeguards and procedures to minimise pollution and environmental degradation and emphasize on efficient waste management. It focusses on maintaining basic ecological processes of land, water and air and ensure environmentally sound and healthy quality of life of the people of Zanzibar. It promotes sustainable use of renewable natural resource and the rational use	Department of Environment (DoE) and Zanzibar Environmental Management Authority (ZEMA)

Main Policies, Legislation	Main features/ Functions	Responsible Agency
	<p>of non-renewable natural resources and preserve the biological and cultural diversity of Zanzibar's lands and marine. The Act provides the basis to strengthen institutional capabilities for protecting the environment and sets standards and procedures for Environmental Impact Assessment (EIA) and Environmental Audit (EA) and defines obligations for all stakeholders. It also provides for the development of national, local and community environmental action plans. On institutional set up, the Act provides arrangements for coordinated approach to environmental compliance and enforcement of laws under the mandates of the Division of Environment (DoE) and Zanzibar Environmental Management Authority (ZEMA). The Act sets provisions from establishment of an environment fund for conservation purpose. The Act has very clear mandates on enforcement of environmental laws and regulations that provide building blocks for the BIOFIN actions.</p>	
<p>Zanzibar National Climate Change Strategy (2014-2020) and Action Plan (2016-2021)</p>	<p>Zanzibar has developed its national climate change Strategy and Action Plan both detailing strategies and priority activities to address the National Vision 2050 and MKUZA III. The Strategy puts in place various climate change adaptation and mitigation initiatives to address the drivers of deforestation, land degradation, and biodiversity loss and safeguard Zanzibar's terrestrial and coastal habitats. Priorities include promotion of CoFMAs to achieve climate change mitigation objectives and enhance carbon sequestration in natural ecosystems. Implementation of these strategies and plan is envisaged under the Zanzibar Climate Change Financing mechanism and Resource mobilisation plan. The mechanism is intended to address the challenges of funding deficit and scale up country's funding capacity to meet the needed adaptation needs. The mechanism addresses the two critical OECD DAC key principles on Climate Change Financing namely alignment with country's planning and budgeting mechanisms and capacity development to absorb and manage climate change financing. Currently majority of funding for climate change comes through bi-lateral donor support and limited amounts accessed from global funding mechanisms for climate change interventions mostly through fragmented programmes and project level activities. The URT has not capitalised on the potential for climate change financing and therefore varied financing options have not been to align behind government priorities for climate change. This makes it difficult to identify and track funding allocated specifically for climate change activities at the national level. The mechanism is anticipated to broaden climate change financing through widening national access to global funding mechanisms. Markers for tracking climate change mitigation and adaptation within national budgets will thus be considered under this mechanism. The</p>	<p>Department of Environment</p>

Main Policies, Legislation	Main features/ Functions	Responsible Agency
	Strategy proposes promotion of CoFMAs to achieve climate change mitigation objectives and enhance carbon sequestration in natural ecosystems (RGZ, 2014). Implementation of adaptation and mitigation strategies and plans is covered under the National Climate Change Finance Mechanism which will also form a comprehensive climate change expenditure framework and create better interaction with the Ministry of Finance and Planning and other partners.	
Zanzibar Investment Policy (2007)	The Zanzibar Investment Policy was developed to attract investments from both Foreign Direct Investment (FDI) and local sources to realize the Zanzibar Development Vision 2020. The policy promotes attraction of FDI commensurate with opportunities for fisheries and marine sub-sector development that are an entry point to the biodiversity financing. Due to the finite land of the Zanzibar Island, the Policy emphasize instituting a secure land tenure system that promotes maximum use of land resources. The policy promotes strategies for attracting, strengthening and broadening venture capital companies, and finance companies through investments by public, private local and foreign investments. It also puts in place incentives to promote such investments that include fiscal and non-fiscal incentives, with provision on corporate tax relief, investment allowances on capital expenditure; reinvestment on capital expenditure; preferential tax rates for withholding tax on dividends, royalties and interest; preferential rates on indirect taxes; and deductions of specified costs and expenses. The relevant BIOFIN non-fiscal incentives include access to land for investments and repatriation of funds	PO-labour, Economic Affairs & Investments
Zanzibar Local Government Policy (2012)	The Zanzibar Local Government Policy (2012) objective is to ensure that an accountable local government is established with capacity to provide better and efficient basic services to the people. It also aims to safeguard livelihoods and ecosystem services that include land, water, waste management, ocean, etc. The Policy promotes grounds for local good governance framework, provisions of local socio-economic programs of the government, security and protection, conflict resolution mechanisms and ensuring the welfare of the local communities. On sustainable development, the policy promotes conservation of terrestrial, coastal and marine environment within respective local government jurisdictions.	PO-Regional Administration and Local Governments
Local Government Authority Act (2014)	The Local Government Authority Act (2014) provides for general functions of the local council. Section 26 (1) of the Act specifies functions and responsibilities related to maintenance of environmental sanitation and control of environmental pollution. It also guides supervision and ensuring measures to control extraction of stone, sand, wood, and other forms of natural resources are observed. The Act promotes conservation related interventions such as afforestation and urban forestry initiatives, implementation of land use planning, climate change adaptation/mitigation and disaster management.	PO-Regional Administration and Local Governments

Main Policies, Legislation	Main features/ Functions	Responsible Agency
Regional Administration Act (2014)	The Regional Administration Act (2014) specifies powers and functions of the Regional, District, and Shehia Government administrators. It covers all matters related to the social, economic and environmental governance in the lower administrative units such as in the Shehias. Specifically, Section 22 (1) (d) of the Act engages on assisting in the use and management of natural resources, protection of environment for sustainable development and in all activities of national development. On investments, project proponents are required to collaborate with the regional, district and Shehia administration in the implementation of social and environmental safeguards of the proposed project. Proponents are as well required to coordinate with the community in the implementation of the Corporate Social Responsibility (CSR) in the areas affected by the operations of such developments.	PO-Regional Administration and Local Governments
Zanzibar Maritime Strategy (2019)	The Zanzibar Maritime Strategy (2019) aims to accelerate adoption, incorporation, mainstreaming, implementation and enforcement of IMO instruments into the local maritime regulations. The Strategy also enhances the level and capacity of maritime safety and security for the local shipping activities; and ensure compliance in the protection of marine environment and coastal zones.	Ministry of Blue Economy and Fisheries
Zanzibar Integrated Solid Waste Management Strategy (2019)	Solid Waste Management (SWM) situation in the Zanzibar archipelago, in both Unguja and Pemba Island is unsatisfactory and significantly substandard. Solid waste is not being adequately collected and is dumped improperly in environmentally sensitive areas such as on the beaches, in the ocean, including the tourist areas. Hardly any SWM service revenues from the households or commercial sector are being collected, and thus the required waste collection and disposal is inadequate. With the projected substantial increase in population and economic development, generation of the various waste streams, i.e. municipal/commercial, hazardous waste, health care risk waste, will increase, affecting the fragile environment and coastal and marine biodiversity. The Zanzibar Integrated Solid Waste Management Strategy prepared in 2019 addresses the existing Solid Waste Management (SWM) challenges and provides priorities in the Zanzibar archipelago that would lead to a cleaner and environmentally safer environment for its inhabitants and the tourists visiting the islands. The policy strategy focuses on integration of policy and legal frameworks related to waste management in Zanzibar. The strategy specifically promotes institutional adjustments related to sustainable waste management, financial tools/measures (including PPP), public awareness and community involvement in SWM and capacity building, as a cross cutting aspect.	Department of Environment/ZEMA



Main Policies, Legislation	Main features/ Functions	Responsible Agency
Marine Conservation Unit Regulations 2014	<p>The Marine Conservation Unit Regulations (2014) establishes the Marine Conservation Unit (MCU) as an organ mandated to coordinate marine conservation areas (MCAs) issues under the Fisheries Act No. 7 of 2010. Specific functions include management of marine conservation areas (MCAs), controlled areas in collaboration with communities and guiding sustainable use of marine resources. The regulations put in place various governance structures including a Technical Committee, Fishermen’s Executive Committee, an Advisory Committee, and Shehia Fishermen’s Committee. The regulations also establish a Marine Protected Areas Fund that draws its resources from government, voluntary payments and donations and fees collected from the protected areas where 70% of the funds are used for operational expenses in the controlled areas and 30% for supporting community development activities. Currently, the Unit manages Menai Bay Conservation Area (MBCA), Mnemba Island Marine Conservation Area (MIMCA), Pemba Channel Conservation Area (PECCA), Tumbatu Marine Conservation Area (TUMCA), Changuu Bawe Marine Conservation Area (CHABAMCA). There are also “controlled areas” (mostly used for seasonal closure programs) that may be within or outside the MCAs that are jointly managed by the Government and the local communities.</p>	Ministry of Blue Economy and Fisheries
<b>Zanzibar Integrated Solid Waste Management Strategy (2019)</b>	<p>Solid Waste Management (SWM) situation in the Zanzibar archipelago, in both Unguja and Pemba Island is unsatisfactory and significantly substandard. Solid waste is not being adequately collected and is dumped improperly in environmentally sensitive areas such as on the beaches, in the ocean, including the tourist areas. Hardly any SWM service revenues from the households or commercial sector are being collected, and thus the required waste collection and disposal is inadequate. With the projected substantial increase in population and economic development, generation of the various waste streams, i.e. municipal/commercial, hazardous waste, health care risk waste, will increase, affecting the fragile environment and coastal and marine biodiversity. The Zanzibar Integrated Solid Waste Management Strategy prepared in 2019 addresses the existing Solid Waste Management (SWM) challenges and provides priorities in the Zanzibar archipelago that would lead to a cleaner and environmentally safer environment for its inhabitants and the tourists visiting the islands. The policy strategy focuses on integration of policy and legal frameworks related to waste management in Zanzibar. The strategy specifically promotes institutional adjustments related to sustainable waste management, financial tools/measures (including PPP), public awareness and community involvement in SWM and capacity building, as a cross cutting aspect.</p>	

Main Policies, Legislation	Main features/ Functions	Responsible Agency
Zanzibar Maritime Strategy (2019)	The Zanzibar Maritime Strategy (2019) aims to accelerate adoption, incorporation, mainstreaming, implementation and enforcement of IMO instruments into the local maritime regulations. The Strategy also enhances the level and capacity of maritime safety and security for the local shipping activities; and ensure compliance in the protection of marine environment and coastal zones.	
Zanzibar Maritime Authority Strategic Plan (2016 – 2021)	The Zanzibar Maritime Authority Strategic Plan spanning the period of five years (2016 – 2021) focuses on creating a good framework for future and sustainable economy of maritime industry and services development. As part of the safety and environmental responsibilities, Zanzibar Maritime Authority is also responsible for preventing marine sources of pollution and protection of the marine environment.	
Zanzibar Marine Oil Spill Response Contingency Plan (2019)	Zanzibar Marine Oil Spill Response Contingency Plan (2019) was prepared for the purpose of responding to maritime oil spill incidences and protection of human health, marine and coastal zone environment from vessels related marine oil spills and discharge. The plan recognizes that marine oil spills pollution poses a threat to beach amenity and the related tourist industry, destruction of coastal installations, sea birds, marine life and fisheries leading to revenue and livelihoods loses.	

## 8. DATA COLLECTION CHECKLIST

Data/Information	Source (Depart/Sector)
1. Economic contributions of Biodiversity to Zanzibar Economy:	
• Time series data (2010/2015-2019/2020): Biodiversity-linked Sectoral contributions to GDP:	PO-F&P
• Forest and mangroves	DFNR
• Tourism	DoT, Commission of Tourism
• Employment in sectors related to biodiversity: tourism, fisheries, forestry, marine – estimated # of people – HH level	DoT, observation
• Marine resources	MPA, DoF
• Fisheries	DoF
• Processing industries (Fish, spices, seaweed products etc)	MoI
• Wetlands management etc	DoW/DoE
• Aquaculture including cage fishing	DoF
2. Projects on biodiversity conservation	DFNR, DoT, MPAs, DoF, DoE, NGOs
• List (sectors, NGOs, CBOs)	
• Species under special conservation programmes (e.g. endangered species)	
Tourism and associated businesses/enterprises (Hotels, Lodges, transport, etc): Create bar chart	CoT, ZRB, MoFP
3. Botanical gardens and biodiversity/wildlife in captivity (trends/#s)	MPAs, DFNR, Private sector
4. Positive trends (5/7 years)	
• Wetlands management etc	DoE
• Aquaculture including cage fishing	MoBE&F
• Restored habitats (land and forest hectares rehabilitated/restored)	DFNR/DoE
• Forest plantations	DFNR
• Organic farming (Certified agricultural lands for organic farming) - spices, Eco-labeling	DoA
• Payment for Ecosystem Services-PES (Certified areas under the PES initiative) – Presence and potential solution	MoWEM, DFNR
• Status of illegal activities (Forest products, marine resources, etc)	MPAs, DoF, DFNR
5. Negative trends (5/7 years):	
• Habitats changes	DFNR, MPAs
• Endangered species	DFNR, MPAs
• Invasive alien species	DFNR, MPAs, DoA
• Pollutions including agrochemicals	DFNR, MPAs, DoA, DoE
• Over harvesting of wildlife and wild plants for commercial and local consumption	MPA, DFNR
6. Inter-sectoral gaps regarding roles including financing for biodiversity conservation	Consultants
• Fisheries Act and priorities on biodiversity	Consultants
• Agencies and institutions involved in biodiversity conservation	Consultants
• Decentralization of central government roles and services to local government	
• Tourism contribution to foreign earnings receipts	Consultants

Data/Information	Source (Depart/Sector)
<ul style="list-style-type: none"> <li>National Tourism Policy</li> </ul>	Consultants
7. Climate change	
<ul style="list-style-type: none"> <li>Zanzibar Climate Change Strategy (2014-2020)</li> </ul>	DoE
<ul style="list-style-type: none"> <li>National Climate Change Finance Mechanism</li> </ul>	DoE
8. Land policy in Zanzibar	MoL&HD
9. Ring-fenced funds for conservation?? And potential retention solutions	MPAs, DFNR, PO-F&P
<ul style="list-style-type: none"> <li>Ring-fenced charges and taxes for re-investment based on respective laws i.e. Environmental law, Tourism Act</li> </ul>	
<ul style="list-style-type: none"> <li>Specific biodiversity standard budget (or cost) units and Account codes</li> </ul>	PO-F&P
10. Current financial instruments	PO-F&P
<ul style="list-style-type: none"> <li>Economic incentives – taxes and expenditures</li> <li>Policies, laws, and practices</li> <li>National reports</li> <li>Market, fiscal, grant, debt/equity</li> <li>Risks</li> </ul>	
<ul style="list-style-type: none"> <li>Employment in tourism about .... people</li> </ul>	DoT, CoT
<ul style="list-style-type: none"> <li>Entrance fees charges in PAs and MPAs</li> </ul>	MPAs
<ul style="list-style-type: none"> <li>Water resources user fees charged</li> </ul>	
11. Solutions:	
<ul style="list-style-type: none"> <li>Debt-for-nature swaps</li> </ul>	PO-F&P, DFNR
<ul style="list-style-type: none"> <li>Environmental penalties and proceeds for mitigation and operations of the institution</li> </ul>	DoE
<ul style="list-style-type: none"> <li>Biodiversity conservation related projects in Zanzibar</li> <li>Biodiversity related initiatives supported through the CSR</li> <li>Eco-labels applicable in Zanzibar</li> </ul>	PO-F&P, DoF, DFNR, MPAs, DoT,
12. Institutions with direct mandates and functions on biodiversity conservation and utilization	DFNR, MPAs, DoA, DoE
13. Key capacity areas for effectiveness and ability to design and scale out biodiversity finance solutions	DFNR, MPAs, DoA, DoE
14. Guidelines for the Preparation of Annual Plan and Budget in the Implementation of the Five Year Development Plan (2015/16-2020/21)	PO-F&P

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