

REPORT ON THE STUDY OF IDENTIFIED INSTRUMENTS AGAINST THE STUDY REPORT ON REGIONAL FRAMEWORKS ON TRANSBOUNDARY PROTOCOLS, JOINT MANAGEMENT PLANS AND STRATEGY FOR AQUATIC BIODIVERSITY CONSERVATION – UNITED REPUBLIC OF TANZANIA

1.0 INTRODUCTION

- Tanzania has made significant strides in putting in place regulatory frameworks and governance structures for management of natural resources for sustainable and social economic development.
- In so doing it has made a range of policies, guidelines and regulatory frameworks on transboundary cooperation in environmental management and climate change mitigation and adaptation for conservation of aquatic biodiversity.
- Both National Development Policies and Natural Resources related policies are geared towards providing strong support to transboundary cooperation in environmental management and climate change mitigation in adaptation for aquatic biodiversity initiatives to include both fresh and marine waters.
- The natural resources related policies, which are supporting transboundary conservation in environmental management and climate change mitigation and adaptation for conservation of aquatic biodiversity includes: -
 - (i) The National Fisheries Policy, 2015
 - (ii) The Forestry Policy,
 - (iii) Wildlife Policy, 2012
 - (iv) National Policies for National Parks
 - (v) Water Policy 2002
 - (vi) Mineral Policy, 2009
 - (vii) Zanzibar Blue Economy Policy, 2020
 - (viii) Local Content Policy for Oil and Gas Industry 2014;
 - (ix) The Deep-Sea Fisheries Act, CAP 388 RE 2002
 - (x) The Forest Act No. 14/2002
 - (xi) Environment Management Act, 1983
 - (xii) The Fisheries Act No 22/2003
 - (xiii) The Special Economic Zones Act, 2005
 - (xiv) Fisheries Regulations, 2009
 - (xv) Marine Parks and Reserves Units Act No. 29/2004
 - (xvi) The Merchant Shipping Act, of 2003

(xvii) Tanzania Shipping Agency Act No. 14/2017

A synopsis of relevant nation instruments reviewed and gaps identified in relation to environmental and aquatic conservation are as follows:-

2.0 THE NATIONAL FISHERIES POLICY, 2015

Overall objective: to develop a robust, competitive and efficient fisheries sector that contributes to food security and nutrition, growth of the national economy and improvement of the wellbeing of fisheries stakeholders while conserving the environment.

2.1 Strengths of Fisheries Policy

Policy provides for Management and Sustainability of Fisheries Resources because Fisheries resources are renewable; however, capture fisheries are subject to depletion if not properly managed and conserved in a sustainable manner.

Policy Objective under this statement intends *“to ensure effective management of fisheries resources through proper conservation, protection and rational utilization for sustainable development”*.

The policy objective is supported by six (6) Policy Statements. However, the under mentioned policy statements are the relevant policy with specific focus with the conservation of Aquatic Resources, these are Policy statement (v) and (vi);

Other issues related to aquatic environment being addressed by the Fisheries Policy include effective management of both marine and freshwater protected areas.

In implementing this Policy, the Ministry develops strategy and development programs; whereby to-date, several programs have been implemented. These include Tanzania Fisheries Sector Master Plan, Fisheries Sector Development Strategy and National Aquaculture Development Strategy (2018 – 2025) just to mention a few.

Sub-Provision 3.16.1 Environment: This insists that fisheries production depends on environmental resources such as land, water, air and other resources. The sustainable utilization of these resources is important for the growth and sustainability of the sector. Changes in rainfall patterns and increase in temperatures affects water levels, aquatic ecosystems, fish breeding sites and species diversity; and fish performance which lead to low fisheries production. Also, appropriate fishing and aquaculture practices conserve the environment and, therefore, reduce negative impacts.

Gaps in the Fisheries Policy

(i) The policy objective and policy statement provides only one policy statement, which is envisaged in Policy Sub-Policy Provision 3.16.1 which states

that, *the Government shall strive to improve adaptation measures to climate change effects and deal with all the risks involved.*

- ❖ While the climate change is one of the serious problems affecting the aquatic environment where fishing activities are being conducted and associated biodiversity – the issue of **climate change** is not well torched and not given priority in the National Fisheries Policy (2015).

The **gaps** in relation to Climate Change includes

- i) the magnitude of climate change issues/threats to aquatic environment and associated biodiversity are not well defined;
 - ii) Lack of policy objective on climate change;
 - iii) Intervention measures, which were supposed to be presented as policy statement, are also missing. One policy statement in the entire policy of fisheries is not enough for a serious issue like climate change and its associated impacts.
 - iv) The Policy does not clearly mention Blue Economy issues.
- ❖ The issue of invasive/alien species is not well captured in the National Fisheries Policy (2015) despite its impacts on aquatic environment (especially in the Lake Victoria) and associated biodiversity.

3.0 NATIONAL ENVIRONMENTAL POLICY 2021

The National Environmental Policy (2021) was adopted to ensure environmental conservation and sustainable use of natural resources for socio-economic development. The Policy was adopted to address the identified environmental challenges and foster sustainable socio-economic development in the country.

3.1 Aquatic environment and biodiversity

Environmental Policy analyzes the situation of Deterioration of Aquatic systems including freshwater, coastal marine ecosystems and wetlands in the country which are faced with numerous environmental challenges including decreased productivity, reduction in aquatic resources and biodiversity as well as water shortages leading to decreased capacity to support human well-being.

This situation is caused by unsustainable human activities including deforestation; poor agricultural practices, destructive fishing practices; coral mining, mangrove cutting, unmanaged tourism; industrial and mining practices which cause water pollution, seapages and leakages; climate change; and expansion of infrastructure development particularly in urban areas and catchment basins.

Strength of Environmental Policy

Aquatic Environment and Biodiversity policy provides for climate change issues Objectives *which insists on strengthening of the national capacity for addressing*

climate change impacts; and objective, and enhancing conservation of aquatic ecosystem for sustained ecological services and socio-economic wellbeing.

3.2 Climate Change

Extreme climate and weather driven events such as droughts, strong winds, prolonged dry periods, erratic rainfall, variable rainfall seasons, flooding and duration has accelerated water scarcity, food insecurity, desertification and ecosystem shifts in almost all regions of the country.

Sea level rise due to climate change has resulted in submergence of some Islands and intrusion of sea water into freshwater wells along the Coast. Climate change impacts have enormous costs both socially and economically.

Strengths Environmental Policy

The strengths of Environmental Policy in addressing climate change issue are stipulated in its objectives and policy statements as follows;

Policy Statements:

- i) Strengthen institutional and human resources capacity on Climate Change Issues;
- ii) Promote public awareness on Climate Change impacts;
- iii) Promote collaboration with Private Sector on Climate Change initiatives;
- iv) Promote regional and international cooperation to address Climate Change; and
- v) Promote development and transfer of green affordable technologies

Gaps of Policy on Climate Change

Despite Government initiatives to address climate change and the progress made, adverse impacts of climate change are still felt in the country due to:

- (i) As African blue economy includes fresh water bodies, spatial planning is also important in freshwater bodies.
- (ii) Effectiveness in following protocols while attending challenges in transboundary waters.
- (iii) Lack of legal mandate and capacity to monitor deep waters (transboundary areas).
- (iv) Absence of Guidelines in managing Environmentally Sensitive Areas (ESAs) to develop management plans.
- (v) Conflicting roles in sectors (e.g., EAC and NEMC or Ministry responsible for water in managing transboundary environmental issues etc).
- (vi) Unavailability and access to environmental data – enable LGAs to prepare Environmental Action Plans
- (vii) Disjuncture between NEMC and LGAs for reporting activities.
- (viii) Inadequate collaboration between government and private sector
- (ix) Low national adaptive capacity to the impacts of climate change;
- (x) inadequate capacities to explore opportunities resulting from climate change;

- (xi) Unestablished National Environmental Trust Fund that could facilitate easier implementation of NEMC's roles and mandates.

4.0 WATER POLICY

Water resources are considered as a key factor in the socio-economic development and the fight against poverty. Deliberate efforts are therefore needed in the management of the resources to sustain the desired pattern of growth and consumption, so as to ensure that all socio-economic activities maximizes their capacities, as articulated in the Tanzania Vision 2025.

Strengths of the policy

The policy explains in detail and entails integrated planning, development and river basin management in support of food security and poverty reduction as well as environmental safeguards which include water as a resource base of all aquatic ecosystems and biodiversity.

4.2 Gaps of the Policy

The policy is silent on climate change factors affecting water availability and other associated impacts.

5.0 FORESTRY POLICY

Forest Policy provides four objectives of the forest sector based on the overall goal. One of them is to ensure ecosystem stability through conservation of forest biodiversity, water catchments and soil fertility.

Watershed management and soil conservation is one of the key areas that need to be taken care-off by the Forestry Policy. Sustainability of water sources is one of the key pre-requisites for local and national development. Population pressure and inefficient forest management and protection have contributed to the deterioration of catchment forest areas causing water shortages.

However, poor species selection and illegal logging combined with inappropriate logging methods have further reduced the quantity and quality of water as well as created sedimentation and peak floods. Cultivation on riverbanks outside forest reserves has caused erosion and devastated waterways. The value of water is not internalized in the pricing of forest products, leading to conversion of forests to other land use in the catchment forest areas.

Strength in relation to aquatic environment and biodiversity

In order to address the above mentioned issues the following policy statements are adhered to:

Policy statement (19): New catchment forest reserves for watershed management and soil conservation will be established in critical watershed areas.

Policy statement (20): Watershed management and soil conservation will be included in the management plans for all protection and production forests. Involvement of local communities and other stakeholders in watershed management and soil conservation will be encouraged through joint management agreements.

Policy statement (21): Research and information dissemination will be strengthened in order to improve watershed management and soil conservation.

5.2 Gaps

Management of aquatic resources and biodiversity as well as climate change issues are not explicitly explained in the Policy. The Policy also lacks proposed interventions for addressing those issues.

6.0 NATIONAL POLICIES FOR NATIONAL PARKS

The vision of the National Policies for National parks in Tanzania is "*Sustainable conservation of national park's resources and values for the benefits of mankind*".

Policy Objective:

To perpetuate native plant life as part of natural ecosystems and ensure that landscapes and plants may be manipulated only when necessary to achieve approved management objectives as defined in an approved Park's GMP.

The policy Provision 3.9 on Water Resources states that:

TANAPA will evaluate fresh water, brackish and marine resources to ensure they are properly preserved and managed. Efforts will be undertaken to restore the integrity and eliminate the effects of human disturbances on water resources.

Furthermore, **Provision 3.9.1** on Water Quantity and Quality emphasize that:

TANAPA will seek to perpetuate surface and ground waters as integral components of park aquatic and terrestrial ecosystems. *Park water, either surface water or groundwater, will be withdrawn for consumptive use (for tourism and park administrative purposes only) only if absolutely necessary, and then only when approved by the park's GMP and TANAPA Water Use and Management Guidelines*). The consumptive use of water will not be allowed to significantly alter natural processes and ecosystems.

Regarding Climate Change **Policy Provision 3.11** Weather and Climate literates that Parks will maintain baseline climatological data for perpetual references that will contribute into local, regional and global climate database.

Strengths of National Policies for National Parks in Tanzania

The policy Provision 3.7.7 Exotic Plants and Wildlife elaborates that, exotic species are those that occur in a given place as a result of direct or indirect, deliberate or accidental actions by humans. Introduction of new exotic species will be prohibited. Management of Populations of exotic plant and wildlife species already present in the park, up to and including eradication, will be undertaken wherever such species threaten park resources or public health and when control is prudent and feasible.

Gaps in National Policies for National Parks in Tanzania

Provision 3.10.5 of the National Policies for National Parks states is on Weather and Climate: This section state that, parks containing zones with a natural preservation emphasis will gather and maintain baseline climatological data for perpetual reference.

This section emphasize on maintaining baseline climatological data for perpetual reference. There is no policy statement on Climate Change. *In this regard, it appears that the issue of climate change is not well articulated and not given priority in the national policies for National Parks in Tanzania (1994).* Currently, climate change is one of the serious problems affecting aquatic environment and associated biodiversity.

7.0 LOCAL CONTENT POLICY OF TANZANIA FOR OIL AND GAS INDUSTRY, 2014

Gaps of Local Content Policy

Policy for Oil and Gas Industry is silent on issues related to aquatic environment and biodiversity, and climate change issues, although aquatic environment is one of the major resource base for both oil and gas. The common environment challenges on aquatic environment on oil and gas includes oil and chemical spill over which causes oxygen suffocation in water areas.

8.0 MINERAL POLICY

Despite the registered achievements, the mineral sector has continued to face challenges, particularly low integration with other sectors of the economy; low contribution to the GDP compared to the sector growth; slow development of small-scale mining; low capacity of the Government to administer the sector; low level of value addition of minerals; and environmental degradation.

One of the key areas referring to environment in the Policy is “*Development of Small Scale Mining*”.

The environment being mentioned here is not specifically referred to aquatic environment; though aquatic environment may be inclusive.

Issue: Effective Development of Small-Scale Mining

Since 1997, the Government has taken efforts to formalize artisanal miners into small-scale miners and provide extension services. Despite these efforts, the contribution of small-scale mining to the economy is insignificant. This is due to the use of inappropriate technology and lack of capital. The Government is still committed to support small-scale mining through provision of supportive extension services and establishment of mechanisms for accessing capital.

Objective: To support and promote development of small-scale mining to increase its contribution to the economy.

Strength of Mineral Policy

Policy Statement: The Government will continue to collaborate with stakeholders to ensure that small-scale miners preserve the environment.

Issue: *Strengthening Management of safety, occupational health and environment in mining activities.*

Mining activities cause adverse effects to safety and occupational health of mineworkers as well as environmental land degradation, pollution, and social disruption to local communities around mine sites. However, improved management systems for health, safety and environment have dramatically increased safety and environmental performance in mining operations over the last decade.

Objective: To promote best practices for health, safety and environmental management in mining areas.

All six **Policy Statements** are intending to address environmental issues, where aquatic environment may be part and parcel of environmental issues that the policy statements intend to address.

Gaps of Mineral Policy

Upstream activities including mining affecting water run-off and underground water are not mentioned in mining policy id there is no management policy strategies to address the issue.

9.0 WILDLIFE POLICY

9.1 Wetlands conservation and management

Wetlands play an important role in poverty alleviation and conservation of environment. Tanzania mainland surface area covers 883,343 km² of which 10% (equivalent to 88,334.3 km²) is wetlands. Wetlands are among the high productivity aquatic environments. The functions of wetland include;

- (i) Water storage, distribution filtration and purification;
- (ii) Provision of natural products including water;
- (iii) Erosion control and sedimentation;
- (iv) Flood control; and
- (v) Support for fisheries and other aquatic biodiversity

Issue: Loss of wildlife habitat, and wetlands degradation.

Policy statements:

(a) In recognition of the importance of conservation of biological diversity to the livelihood of mankind, the state will retain the overall ownership of wildlife. Since land and water resources are owned by the state, and that the wetlands constitute these elements, the state will retain the overall ownership of wetlands to ensure that wetlands continue to provide goods and services to the people and the environment for sustainable development.

Strengths of Wildlife Policy

Sustainable utilization of wildlife and wetlands

Sustainable utilization of wildlife and wetlands resources can substantially contribute to an increase in export and domestic economy through tourism, increased value of products, diversification of economy activities, sustaining food security and directly increasing production in other sectors such as fishery, agriculture, and the informal sector. Wetlands are a major source of livelihood to communities living around them.

Issue: Wildlife and wetlands economic potentials not sufficiently explored and tapped; and wetlands services not quantified, therefore prone to misuse.

Policy statement: The government will continue to promote the use of wildlife and wetlands resources in a manner that contribute to economic development, without prejudice to environment through system planning.

Gaps of Wildlife Policy

The policy discusses only wildlife and wetlands, while there are other aquatic environment and their associated resources being managed under the Wildlife Policy. Those aquatic environments include both marine and freshwater environments (sea, lakes and rivers). Some of those areas are either, national parks or game reserves. Like many policies reviewed, the issue of climate change, aquatic habitats and their biodiversity are lacking in the policy objectives and policy statements.

10. MARITIME ENVIRONMENTAL POLLUTION

The Merchant Shipping Act, of 2003 came into force on 26 March 2004 and was amended on 20 September 2019. To facilitate the efficient implementation of the provisions of the Act, the Minister responsible for shipping has made twenty- two (22) sets of Regulations and the Tanzania Maritime Qualification Code which are currently in force. One more set of Regulations were made under the Tanzania Shipping Agencies Corporation Act, No. 14 of 2017.

POLICIES STRENGTH

Regulations made under the Tanzania Shipping Agencies Corporation Act, No. 14 of 2017 were intended to mitigate the impact of environmental pollution within the Tanzania territories.

a) The Merchant Shipping (Oil Pollution Preparedness, Response and Cooperation) Regulations, 2012

These Regulations shall apply:

- (i) Concerning port and oil handling facilities,
- (ii) When a ship entering or leaving the port should have oil pollution emergency plan.

b) The Merchant Shipping (Prevention of Oil Pollution) Regulations, 2012

These Regulations shall apply to:-

- (i) Tanzanian ships;
- (ii) Other ships while in Tanzanian territory water;
- (iii) Government ship registered in Tanzania;

All of the Regulations cited above aims to prevent pollution and protect the biodiversity from the ships while when transport activities are carried out.

THE ENVIRONMENTAL IMPACT OF SHIPPING

The environmental impact of shipping includes air pollution, water pollution acoustic, and oil pollution. Ships contribute more than 18 per cent of air pollutants globally including the sources greenhouse gas emissions.

THE CHALLENGES FACING ENVIRONMENTAL POLICY IN TANZANIA

Challenges facing maritime environmental pollution were categorized into:-

- a) Human factors
- b) Maritime Transportation
- c) Sound pollution
- d) Wildlife Collisions
- e) Atmospheric Pollution
- f) Oil spills
- g) Wastewater

GAPS OF POLICY ON MARITIME ENVIRONMENT POLLUTION

- ✓ Tanzania is currently promoting the development of industry and exploitation of natural resources in an attempt to improve its economic stability. Tanzania lacks the economic base and trained manpower essential for the implementation of a regulatory and properly administered strategy.
- ✓ The country lacks a conceptual framework, public support, governmental motivation, legislation and regulatory infrastructure needed for effective environmental pollution management.
- ✓ The lack of effectiveness of maritime environmental laws/ regulations in prevention and controlling environmental pollution, the lack of public awareness, education and lack public participation in the environmental issues is also a major hurdle. Non- enforcement of regulations outdates fines for polluters are another area of our Regulations weakness.