



Identified Barrier #3 to climate-resilient water management in Tanzania

Overlapping legal and regulatory mandates
impacting inter-sectoral coordination

A root cause analysis



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Preface – Global Water Leadership in a Changing Climate (GWL)

The primary aim of this study is to undertake a comprehensive evaluation of the legal and regulatory mandates governing both the consumptive and regulatory sectors within the water resources management framework. This assessment is carried out with a specific focus on understanding the implications of these mandates on the overall performance of the water sector. The ultimate goal is to formulate recommendations aimed at enhancing water governance, particularly in terms of fostering coordination and collaboration among the various sectors involved.

The groundwork for this study was laid through the Global Water Leadership Programme (GWL) in partnership with the National Multi-Sectoral Forum (NMSF), with invaluable support from the Foreign, Commonwealth, and Development Office (FCDO).

The process began with a comprehensive stakeholder and gender analysis, conducted by a consultant, to gain a holistic understanding of the water sector's stakeholder landscape, including both consumptive and regulatory sectors. This analysis not only identified key actors but also highlighted existing structures and critical gaps within the sector.

Subsequently, on 9 and 10 June, 2022, a two-day workshop was convened by the GWL, serving as the first formal consultation with key sector stakeholders. This engagement allowed the gathering of insights and perspectives from a wide spectrum of stakeholders, enriching the study with diverse viewpoints.

On 14 June 2022, the study process was further strengthened through a courtesy visit and consultation meeting with key officials from the Ministry of Water, specifically the Director of Water Resources and Development, as well as officials working within the Directorate of Water Resources Management and Development. These engagements ensured that the study was well-informed by the experiences and insights of government authorities directly involved in water sector management.

The culmination of this collaborative effort was the official launch of the GWL during the 5th National Sectoral Multi-Stakeholder Forum in June 2022. At this forum, the GWL Country Coordinator presented a comprehensive snapshot of Tanzania's water and climate change scenario, laying the foundation for the study's subsequent stages.

Throughout this process, the support provided by FCDO has been instrumental in facilitating the study and ensuring that it is conducted effectively, with access to critical resources and expertise. This multi-faceted approach, involving diverse stakeholders and expert consultations, underscores the rigor and comprehensiveness of the study, which aims to yield meaningful recommendations for improving water governance through enhanced coordination and collaboration among sectors.

Executive summary

Tanzania began implementing the Water Sector Development Programme (WSDP) in 2006. This aims to strengthen water sector institutions for integrated water resources management and improved access to water supply and sanitation services. Currently, the country is implementing the third phase of WSDP (WSDP III) from 2022/2023 to 2025/2026. The water sector under the existing programme works with a diversity of collaborators from the other sector ministries, such as education, health, and local government in the delivery of the programme objectives.

The programme's success depends upon the adequacy of existing sector legislation to support the implementation of integrated water resources management and the root causes of identified gaps. The Global Water Leadership Programme, an initiative supported by the United Kingdom's Foreign, Commonwealth & Development Office seeking to address the most critical challenges for WRM within the framework of the National Multisectoral Forum, sought to investigate the root causes behind conflicting, overlapping, or contradicting legislation. Sectoral responsibilities related to water resources have been identified to include agriculture, (irrigation), mining, hydropower, industries, domestic water supply, environmental management, fishing, and lands.

The main objective of this analysis is to review the legal mandates of consumptive and regulatory sectors and their impacts on water sector performance to provide recommendations on water governance improvement, especially regarding coordination and collaboration among the sectors. These findings will inform the working group-led process of preparing a comprehensive response strategy, GWL's flagship product that will be submitted to the National Water Board. The response strategy will provide recommendations for enhancing legal and regulatory mandates related to water resources management.

In conducting this analysis, key sectoral legislation on or related to water resources management have been reviewed. Comparisons and contrasts between different legislation have been determined. Powers, functions, and responsibilities have been analysed regarding licensing, monitoring, and enforcement of the legislation to see whether there are any overlaps, conflicts, or complementarity.

Root Cause 1 - Fragmented implementation of the Institutional Framework for Water Resources Management

There's an absence of comprehensive and integrated planning for water resources, leading to inconsistent management practices that contribute to water scarcity, depletion, and reduced water quality. This fragmentation is marked by a lack of coordination among various agencies and stakeholders responsible for water management.

Root Cause 2 – Overlapping sectoral mandates and low integrity of practitioners

There's a notable duplication of efforts and resources, resulting in wasted time and money that could have been more effectively used.

Root Cause 3 – Limited financial and human resources

A lack of trained personnel with the expertise to manage and implement effective water management strategies directly leads to inadequate investments in research and innovation for more sustainable water management practices. This shortfall makes it even more challenging to collaborate across various sectors and agencies.

Upon close review, most of the legislation is complementary rather than overlapping or conflicting. In occasions where there are overlaps, however, analysis shows that there are legal procedures to resolve them. For that reason, the key recommendations are as follows:

- **Improve cross-sectoral coordination by inserting legally binding, pragmatic clauses in the current legislation** to improve budgetary allocation for management of water resources instead of small, isolated budgets managed by different institutions or ministries.
- **Implement Integrated Water Resources Management (IWRM)**. The root cause analysis exercise revealed that water-related legislation is mostly complementary, meaning that implementing IWRM will allow for compulsory coordination and collaboration among all players and authorities of related sectors (agriculture/irrigation; hydropower; industrial; domestic water supply; environmental management; fishing; land and mining activities; oil and gas activities; and land use planning).

- **Establish clear coordination performance indicators**, both long-term (aligning to WSDP III, TanWIP and the Mbeya Declaration) and short-term (aligning to annual sector plans, Mbeya declarations). Clear sector-based performance indicators on IWRM, including investment, harnessing commitment from high-level decision-makers from within the Ministries building on the country's experience in addressing critical issues such as the recent water crisis in Dar es Salaam, Cholera, and COVID-19, will better enable effective monitoring of progress.
- Strengthening cross-sectoral accountability through **developing and enforcing vertical and horizontal accountability frameworks** regarding water resources management and use.
- Strengthen multi-sectoral platforms at all levels (NMSF, BMSF, CMSF) by **setting aside budget for convenings and related activities and by regular communication** among stakeholders. This may partly be done by providing information like improving and producing the Water Resources Status Report promptly at both the Basin and National Level.
- **Leverage better collaboration modalities** between the WRM Institutions and other information Monitoring/management Authorities like TMA instead of working on MoU basis.
- **Promote awareness and education programmes on IWRM** to both public and private stakeholders



Working Group Three: National Multisectoral Forum for Water Resources Management Working Groups Formation

Acknowledgements

We are grateful to the diverse range of stakeholders, both governmental and non-governmental, who contributed their time, expertise, and perspectives to shape this report. Your dedication and support have been invaluable in addressing the critical challenges in WRM.

This report has been developed as a result of the Global Water Leadership Programme, which is generously funded by the Foreign, Commonwealth & Development Office (FCDO). We deeply appreciate the FCDO's commitment to improving water security and resilience.

Special appreciation goes to Lesley Pories, Global Coordinator of the Global Water Leadership Programme, for editing the report.

We also want to thank the National Multisectoral Forum members for their active participation and invaluable insights throughout the process. Your dedication to fostering positive change in the water sector has been instrumental in the success of this endeavour.

Special thanks go to the members of the Working Group 3 taskforce team who conducted comprehensive evaluation of the legal and regulatory mandates governing both the consumptive and regulatory sectors within the water resources management framework. The assessment that focused on understanding the implications of these mandates on the overall performance of the water sector with the goal to formulate recommendations aimed at enhancing water governance, particularly in terms of fostering coordination and collaboration among the various sectors involved.

Additionally, we extend our appreciation to the Ministry of Water, specifically the Directorate of Water Resources and Development, for their support and cooperation.

Lastly, our appreciation goes out to the wider community and the public for their interest and engagement in our mission to ensure water security and sustainability.

Abbreviations

BWB	Basin Water Board
CSO	Civil Society Organisation
DoE	Division of Environment
DP	development partner
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
FCDO	Foreign, Commonwealth, and Development Office
GWL	Global Water Leadership
IWRM	Integrated Water Resources Management
IWRMD	Integrated Water Resources Management and Development
LGA	Local Government Authority
LTBWB	Lake Tanganyika Basin Water Board
MNRT	Ministry of Natural Resources and Tourism
MW	megawatt
NAWAPO	National Water Policy
NEMC	National Environmental Management Council
NGO	non-governmental organisation

NMSF	National Multi-Sectoral Forum
NMSWRF	National Multi-Sectoral Water Resources Forum
NWB	National Water Board
SDG	Sustainable Development Goals
TANAPA	Tanzania National Parks Authority
TANESCO	Tanzania Electric Supply Company
TanWIP	Tanzania Water Investment Programme
TFS	Tanzania Forests Services
TMA	Tanzania Meteorological Authority
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WASH	water, sanitation, and hygiene
WRM	water resources management
WRMA	Water Resources Management Act
WSDP	Water Sector Development Programme
WSSA	Water Supply and Sanitation Authority
WUA	water-user association

Chapter 1: Introduction and background

1.1 Problem statement

Sustaining water resources is a global focus, and this is reflected in various country initiatives, especially given the need for water security and to keep track with SDG 2030. The efforts are streamlined from top-level government officials down to the community level, through overhauling and revamping of existing legal and institutional frameworks and structures. Despite the development of classic world policy, legal frameworks, and their established institutional settings in line with the IWRM framework, feedback from the practitioners has highlighted implementation challenges. The Water Resources sub-sector is inadequately resourced, leading to poor performance, that includes challenges in coordinating the implementation of IWRM plans and fragmented participation of stakeholders leading to challenges in legal compliance. These challenges are exacerbated by competing demands as a result of population growth, climate change, the demand to sustain life, and economic development.

In Tanzania the National Water Policy (NAWAPO) was developed in 2002 and the legislation was approved in 2009. The sector has evolved during the 20 years of policy development, hence this analysis strives to assess both the adequacy of existing sector legislation that supports the implementation of IWRM and the root causes of identified gaps. Specifically, the study will assess whether there is existing conflicting, overlapping, or contradicting directives in legislations governing the water resources sub-sector and related to sectors which include agriculture, (irrigation), mining, hydropower, industries, domestic water supply, environmental management, fishing, and lands.

1.2 Purpose

The main objective of conducting this study is to assess the legal and regulatory mandates of water consumption and regulatory sectors and their impacts on sector performance and provide recommendations to support the government to initiate reviews and improve water resources management governance.

In March 2022, a multi-stakeholder consultation process was initiated to identify the most critical barriers to climate-resilient water management in Tanzania. That process, anchored in the NMSF and led by the Global Water Leadership Programme (GWL), identified “overlapping legal and regulatory mandates impacting inter-sectoral coordination in water resources management” as one of the three biggest barriers that must be addressed. A diverse working group was constituted from within the NMSF taskforce dedicated to *Strengthening Institutions for improved water governance working group* and guided by GWL to investigate this barrier over the course of one year.

The investigation began with a comprehensive root cause analysis of the barrier, and the findings from this inquiry are shared in this report to fill that knowledge gap. These findings will form the basis for designing appropriate Response Strategies to Tanzania’s more urgent challenges to climate-resilient water management as part of the larger GWL programme.

In addition to providing the foundational information for crafting effective response strategies, this report is intended to serve as stimulus for supplementary efforts to address the legal limitations to inter-sectoral coordination challenge.

1.3 Deliverables

The output of the working group investigation is a documented analysis of the legal and regulatory root causes hindering inter-sectoral collaboration and key recommendations.

In conducting this investigation, the study will focus on the following:

- alignment with role of protection and conservation of water resources as this is everyone’s mandate; and

- comparison of the WRMA of 2009 (11) and its amendment of 2022, between identified sector legislation on water supply and sanitation, forestry, agriculture (irrigation), mining, lands, wildlife, local government, and the environment.

Because the root cause analysis is an inquiry into *overlapping legal and regulatory mandates* impacting inter-sectoral coordination in water resources management, the role of science in managing water resources will not be a significant part of this study.

1.4 Methodology

This assignment has been carried out with the support of different sector leaders who were identified to have broad knowledge and experience implementing the policy and regulatory framework. Terms Of Reference for conducting the root cause analysis were drafted and shared for all to review and further improve before being finalized and shared for familiarization and reference. There were a total of ten (10) task-force members. For efficiency in data collection, the team was divided per sector with two members of the Working group allocated to each specific sector for investigation. Information was obtained from key informants in the Water, Environment, Natural Resources, livestock and fisheries and Energy sectors. Data were also collected from Land sector.

A questionnaire was prepared and shared to all task force members to serve as a guide in conducting the exercise in a structured manner. However, information was also gathered in unstructured manners, and through review of literatures. Modality of data collection involved virtual, telephonic and in person structured and unstructured interviews. All in consultation with respective interrelated sectors.

In analysing the root causes, the following framework was adopted. This is a qualitative approach that involved five steps.

1. Defining the problem: What do you see happening?
2. Collecting data: What proof do you have that the problem exists?
3. Identifying possible causal factors.
4. Identifying the root cause(s).
5. Recommending and implementing solutions.

The inputs to this analysis include literature reviews, key informant interviews, focus group discussions, and expert perspectives which in this regard means the experience and expertise of Working Group Three team members. Interviews were conducted using questionnaires as well as direct discussion with selected groups and individuals. Data from the interviews was analysed to verify observations made in the literature review.

Literature review

The reviewed documents and standards included, but were not limited to, the following documents:

- The Water Resources Management Act no. 11 of 2009, and its amendment made in 2022
- The Water Supply and Sanitation Act, 2019
- The Water Supply Regulations, 2019
- Water-related legislations
 - The Land Act, 1999, R.E. 2019.
 - Environmental Management Act, 2004
 - National Water Policy, 2002
 - The Environmental Management (Fees and Charges) Regulations, 2021

- The Environmental Management (Hazardous Waste Control and Management) Regulations, 2019
- The Environmental Management (Registration and Practice of Environmental Experts) Regulations, 2021
- The Forest (Amendments) Regulations, 2017
- The Land Acquisition Act [Principal Legislation], 1968, R.E. 2019
- The Land Use Planning Act, 2007
- The Mining (Mineral Rights) Regulations, 2018
- The Mining Act [Principal Legislation] Revised Edition 2019
- The Mining Act [Safety, Occupational Health and Environmental Protection] Regulations, 2010
- The National Irrigation Act, 2013.
- The Urban Planning Act, 2007
- The Village Land Act, 1999
- The Wildlife Conservation (Prospecting, Mining of Uranium, Exploring and Production of Oil and Gas in Game Reserves) Regulations, 2017
- The Wildlife Conservation Act [Principal Legislation] R.E. 2022
- Water Sector Development Programme: Phase II (2014/2015 – 2018/2019), (July 2014), 2014
- National Irrigation Act

Key informant interviews

Key informant interviews were conducted with opinion leaders who had specific information and could give both quantitative and qualitative insights into the institutional set up, legislation, regulatory and legal frameworks governing institutions they work with which has either direct or indirect impact in Water Resources Management.

1. Kulthum Nancy Shushu - Environmentalist at National Environmental Management Council – Tanzania
2. Magreth Mchome, Marine Conservation Warden at Marine Parks and Reserve Unit (MPRU) – Ministry of Livestock and Fisheries
3. Shukuru Simba, Water Professional - Tanzania Wildlife Management Authority (TAWA)
4. Dr Caren Anatory Kahangwa, Principal Environmental Officer at National Environment Management Council (NEMC),
5. Simon Nkanyemka, Advocate, Ministry of Water, Tanzania
6. Dr Pilly Kagosi, Principal Officer, Tanzania Forestry Research Institute (TAFORI)
7. An official from Ministry of Minerals
8. An official from Ministry of Energy
9. An official from Ministry of Livestock and Fisheries
10. An Official from Ministry of Land
11. An official from Tanzania Forest Service Agency (TFS)

Focus group discussions.

Focus group discussions were conducted during two different convenings with members of Working Groups 1 and 2 as the team presented their report to obtain general qualitative information related to the comprehensive evaluation of the legal and regulatory mandates governing both the consumptive and regulatory sectors within the water resources management framework.

Data analysis

All structured questionnaires collected during interviews were included in overall analysis. The collected data were analyzed qualitatively since it was predominantly textual.



Working Group Three representatives Ms Mwanamkuu Mwanyika and Dr Makariu Lalika holding a key informant interview

1.5 Situation analysis of legal and regulatory mandates impacting inter-sectoral coordination for water resources management

1.5.1 Water Sector Development Programme (WSDP)

The country began implementing the Water Sector Development Programme (WSDP) in 2006 with the aim of strengthening water sector institutions for integrated water resources management (IWRM) and improved access to water supply and sanitation services. Currently, the country is implementing the third phase of WSDP (WSDP III), which runs from 2022/2023 to 2025/2026. WSDP III sets strategies to significantly improve the water resources management and development, and water supply and sanitation services to urban and rural areas. These strategies include construction and expansion of new water supply systems, rehabilitation of water schemes, development of emergency water supply infrastructure in urban areas and promotion of technology development, and applications on operation and maintenance of water supply infrastructure.

1.5.2 The role of water in attaining national and international development goals

“High-quality livelihoods” are among the five main attributes prioritised by **the Tanzania Development Vision 2025**. The water sector is envisaged to contribute to this attribute by ensuring food security through allocation of adequate water for irrigation and other economic activities, including mining, industry, and tourism. In addition, to ensure high-quality community livelihoods, the sector plans to achieve domestic water coverage of 95 percent of urban households and 85% of rural households by 2025.

The **Third National Five-Year Development Plan** for the period 2021/2026 is a nationwide multisector document that aims to achieve the goals set out in the National Development Vision 2025. In achieving the priority areas of the Five-Year Development Plan III, the water sector will implement strategic investments, such as construction of dams and the development of catchment conservation plans to minimise catchment degradation, increase water availability, and improve resilience to climate change.

The contribution of water sector to the realisation of the **Africa Agenda 2063** through transformation of the nation to form part of the regional powerhouse and agriculture to be the food basket for the region. In order to achieve this goal, the sector has a number of projects planned to ensure that by 2063 Tanzania will be part of the powerhouse of the future. Among the strategic projects is the 2015 MW Julius Nyerere Hydropower Project which aims to ensure that the country is supplied with enough power, with surplus to be sold to the neighbouring countries. The Ministry of Water has planned to sustain the hydropower plant through adequate allocation of water for power generation through conservation of the upstream water catchment areas.

1.5.3 Sector collaborators

In the realm of water resources management, especially under the existing Water Sector Development Programme (WSDP) III, the intricate interplay of legal and regulatory mandates across various sectors becomes evident. This programme is not just a unilateral effort; it necessitates synergized action across multiple sectors, including education, health, and local government. This multi-sectoral collaboration is pivotal for the holistic delivery of the programme's objectives.

The water sector in Tanzania additionally benefits from the financial backing of various development partners (DPs) like the World Bank, African Development Bank, French Aid (AFD), USAID, and UNICEF. This support extends beyond mere funding; it encompasses a range of expertise and global best practices that these partners hold from their broad portfolios. Moreover, the involvement of both local and international civil society organizations adds another layer of richness and diversity to the programme.

The presence of these varied collaborators under WSDP III underscores a critical aspect of water resources management: the necessity of robust coordination. With so many influential actors in play, the risk of overlapping mandates and potential duplication of efforts is significant. Effective coordination ensures that each stakeholder's contributions are aligned with the overarching goals of the WSDP, thereby optimizing resource utilization and maximizing the programme's impact. This integrated approach is essential not just for achieving the specific objectives of WSDP III, but also for setting a precedent for future inter-sectoral collaborations. It demonstrates how diverse legal and regulatory frameworks from different sectors and entities can be harmonized to manage a resource as vital as water. This harmony is crucial for sustainable development, and the WSDP III serves as a model in showcasing the effectiveness of coordinated, multi-sectoral engagement in managing complex, cross-cutting environmental challenges.

1.5.4 Sector financing

In the implementation of the Water Sector Development Programme (WSDP) II and the planning of WSDP III, the Government of Tanzania, in collaboration with Development Partners (DPs), earmarked substantial funds. For WSDP II, the planned investment was approximately USD 3.3 billion, with 97 percent originating from foreign sources as per the funding landscape of June 2019. However, by December 2021, the disbursement of these funds revealed significant disparities. Notably, the Water Resources Management (WRM) component

had received only seven percent of its proposed allocation, while the overall disbursement for WSDP II stood at 37 percent of the total USD 3.3 billion.

These financial shortfalls have a profound impact on the programme's execution, particularly regarding inter-sectoral coordination. The ambitious budget of USD 6.4 billion for Phase III, aiming to achieve WRM and Water, Sanitation, and Hygiene (WASH) milestones by 2026, further underscores the challenge. With WRM allocated 32.5 percent of the total planned investment in this final phase, the necessity for effective coordination becomes even more critical. The shortfall in funds, particularly for coordination activities, has directly impacted the ability of the programme to navigate the complex web of legal and regulatory mandates. The underfunding exacerbates the challenge of aligning diverse sectoral regulations and policies, crucial for integrated water resources management.

1.5.5 Policy, legal and institutional framework

There have not been any major policy changes since the inception of Phase 1 of the programme.

The relevant policies include the National Water Policy (NAWAPO) of 2002; the Water Resources Management Act No. 11, 2009, with a minor amendment of 2022 in the management of water resources, and the Water Supply and Sanitation Act No. 5, 2019 that introduced the Rural Water Supply and Sanitation Authority as a major player in rural water supply and sanitation.

The Water Resources Management Act (WRMA), 2009, established the WRM institutions as listed below and illustrated in Figure 1:

1. Ministry of Water (led by the Minister of Water)

- The Ministry of Water is the highest governing body in the water sector, typically responsible for formulating national water policies, strategies, and regulations. It oversees all water resource management activities, ensures compliance with national and international water laws, and coordinates with other government departments and stakeholders. The ministry is usually staffed with a range of professionals including policy makers, engineers, environmental scientists, legal experts, and administrative staff.

2. National Water Board

- The National Water Board is an advisory board to the Minister on matters related to multi-sectoral coordination in integrated water resources planning and management as well as resolution of national and international water conflicts. The National Water Board consists of the Chairman and other ten members appointed by the Minister from the following sectors (i) agriculture (ii) energy; (iii) industry; (iv) forestry; (v) environment; (vi) livestock; (vii) wildlife; (viii) lands; (ix) mining; (x) irrigation; (xi) fisheries; and (xii) infrastructure; (c) one representative from local government administration, (d) three representatives from Basin Water Boards; (e) one representative of the private sector; and (f) one representative from Non-Government Organisations. By law, one third of the members are supposed to be female.

3. Director of Water Resources

- Appointed by the Minister from among public servants, the Director of Water Resources is the advisor to the Government on all matters pertaining to water resources. The Director has the duty to ensure the efficient, effective, and sustainable economical management and supervision of water resources in accordance with the provisions of the Water Resources Act. The director implements policies, manages water resources, and coordinates between different departments and levels of government.

4. Basin Water Board (BWB)

- The Basin Water Board, established by the Minister for each water basin, is a crucial entity in water resource management. Operating under the Board's direction, its mandate includes preparing basin water resources management plans, integrating district plans into these, and providing guidelines for the construction and maintenance of water structures. It is also responsible for monitoring and approving these structures, managing data for water

resources, and maintaining assessments of water availability and demand. Additionally, the Basin Water Board plays a pivotal role in issuing and revoking water use and discharge permits, maintaining a Water Register, enforcing permits and pollution prevention measures, resolving intra-basin conflicts, and coordinating inter-sectoral water resources management at the basin level. It advises on technical aspects of trans-boundary water issues and appoints chairpersons and members of Catchment and Sub-catchment Committees, while also preparing reports on the state of water resources in its respective basin. As a body corporate with perpetual succession and a common seal, it possesses the legal capacity to sue and be sued, and to undertake activities in line with its objectives.

5. Catchment Water Committee/Subcatchment Water Committee

- Catchment or Sub-catchment Water Committees play a vital role in the integrated management of water resources at the local level. Their primary functions include coordinating and harmonizing the catchment or sub-catchment integrated water resources management plans, ensuring that these plans align with broader regional and national strategies while being tailored to the specific needs and conditions of their local areas. Additionally, these committees are responsible for resolving water resources conflicts within their respective catchments or sub-catchments, a critical task in areas where water resources are scarce or heavily utilized. Beyond these core functions, Catchment Committees also carry out various tasks delegated by the Basin Water Board, acting as key intermediaries in implementing broader water management policies and practices at the grassroots level. These committees are typically composed of local stakeholders, including representatives from local government, community groups, environmental experts, and sometimes members of civil society, ensuring a diverse and inclusive approach to water resource management.

6. Multisectoral Forums (National, Basin, and Catchment)

- These forums facilitate the involvement of various stakeholders in water resource management at different levels. They provide a platform for discussion, information exchange, and consensus-building among diverse stakeholders, including government agencies, non-governmental organizations, private sector representatives, and local communities. Participants come from a wide range of sectors and backgrounds, reflecting the diverse interests in water resource management.

7. Water-User Associations (WUA)

- Water Users Associations (WUAs) in Tanzania are formed by the agreement of most of a group of water users and serve multiple key purposes. These include managing, distributing, and conserving water from a shared source; acquiring and operating permits under the relevant Act; resolving conflicts among members related to joint water use; collecting water user fees on behalf of the Basin Water Board; and representing interests and values related to water used for public purposes, like environmental conservation or managing a Groundwater Controlled Area. Membership in these associations is open to any user of water from a common stream, regardless of the purpose of use. To form a WUA, water users must prepare and submit a constitution for approval by the Basin Water Board, which also assists in formulating this constitution. Once approved and registered in the Water Register, all water users within the association's area are required to become members and adhere to its constitution. The WUA is governed by a Management Committee, elected by its members. The Basin Water Board has the authority to provide directions to WUAs for better performance of their functions, including water distribution and management, source protection, and land drainage. This structure ensures that WUAs are effectively managed and aligned with broader water resource management objectives.

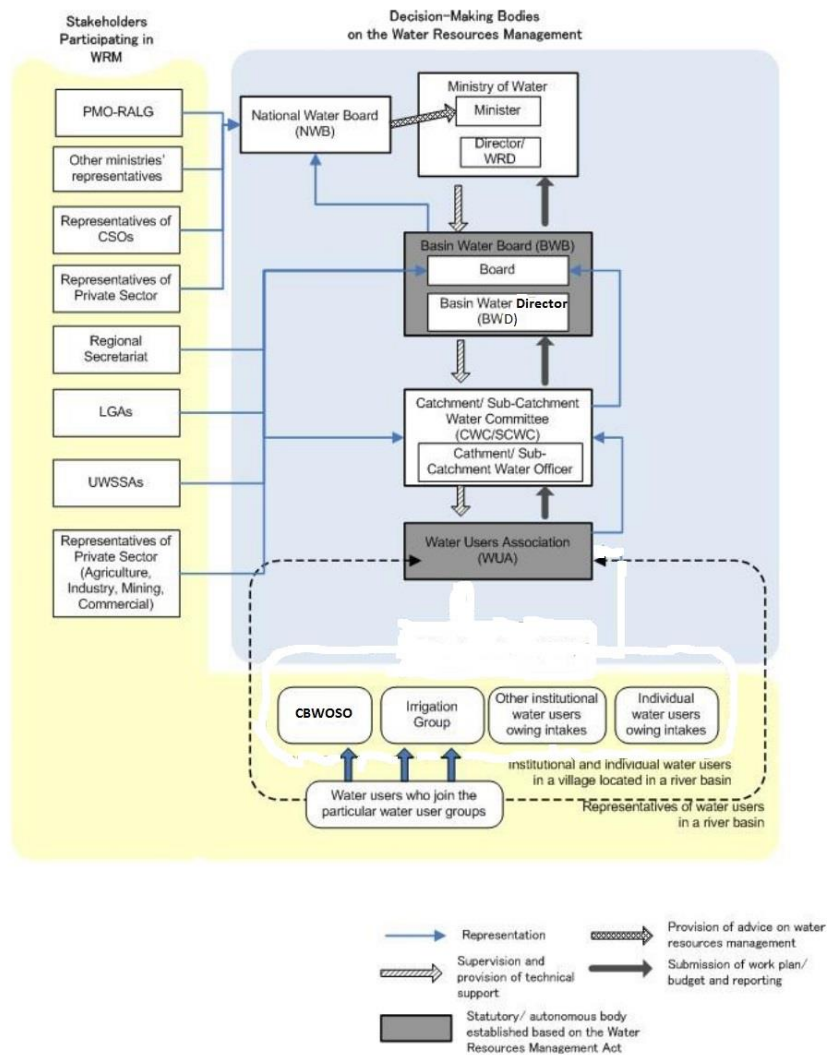


Figure 1: Water Resources Management Institutional Framework

Chapter 2: Literature review

2.1 Overview of Water Sector in Tanzania

Tanzania's water sector is shaped by diverse geographical elements and socio-economic challenges. It possesses rich water resources critical for agriculture, power generation, and domestic needs, but faces pressures from urbanization and population growth. The sector's regulatory framework, involving multiple laws and policies, often leads to overlapping mandates and coordination issues. Key legislations include the Water Resources Management Act and the Water Supply and Sanitation Act, each targeting different aspects of water management but sometimes creating intersecting jurisdictions.

Administratively, the water sector sees involvement from various ministries and agencies, leading to fragmented management and decision-making challenges. This necessitates clear role delineation and enhanced stakeholder coordination for effective water management and achieving sustainable development goals in Tanzania.

2.2 Sectoral responsibilities for WRM

As part of the root-cause analysis, a stakeholder analysis was undertaken to identify key stakeholders (direct and indirect involvement) and assess their prospective roles and responsibilities in the context of the proposed study. The Table in Annex 1 lists the key stakeholder organisations, provides a summary of their mandates (especially in relation to water resources management) and describes the anticipated role(s) of each of the stakeholder organisations in supporting or facilitating implementation of study activities.

2.3 Legislation relating to water resource management

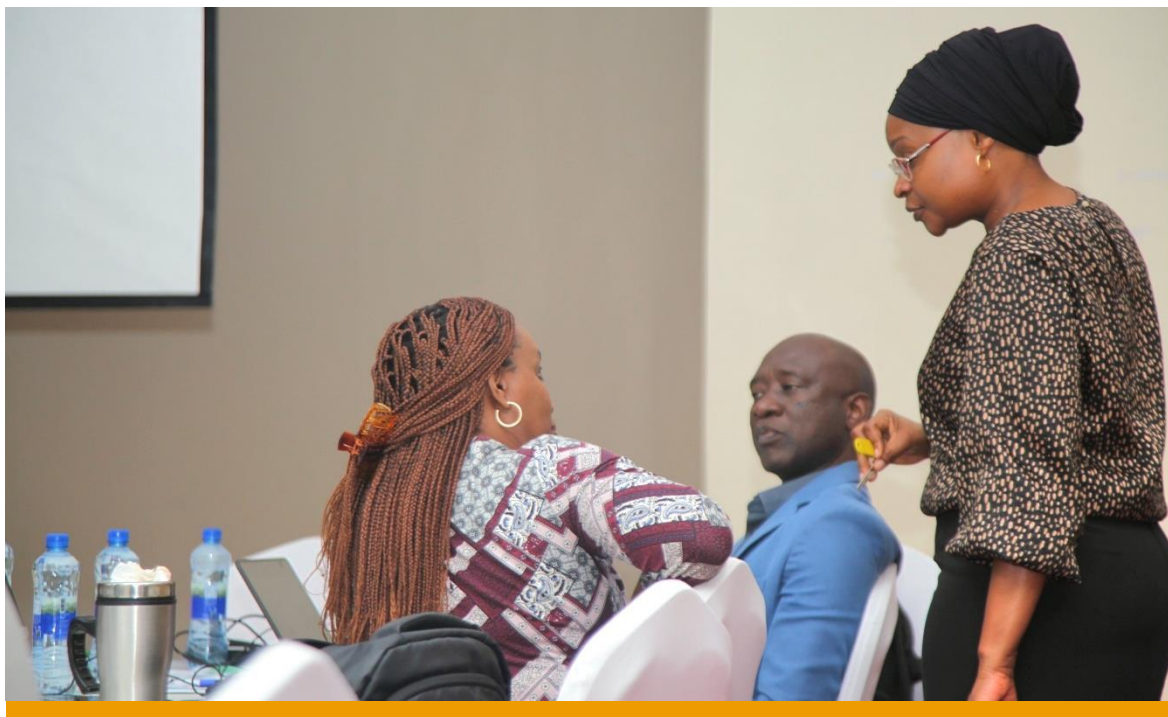
2.3.1 Water Resources Management Act No (11) of 2009

The Water Resources Management Act No. 11 of 2009 and its amended version of 2022 provide an institutional and legal framework for the management and development of water resources. The Act is premised on promoting the principles of the NAWAPO and also deals with ownership and management of water sources, including pollution control. It vests ownership of water sources in the President as trustee and puts in place mechanisms for harvesting and using water. The Act mandates the Minister of Water to oversee water resources management in the country. The Minister is assisted by the Director of Water Resources. The Act also establishes a National Water Board and provides for its functions, including the power to regulate water catchment areas, enact water management plans, classify water resources, and restrict the use of water during certain periods. The Act also establishes BWBs and charges them with the duty of undertaking various tasks, including preparing basin water resources management plans, integrating district plans into the management plans, and providing guidelines for the construction and maintenance of water structures. It is also responsible for monitoring and approving these structures, managing data for water resources, and maintaining assessments of water availability and demand. Over the course of discharging their functions, these BWBs may acquire lands under the Land Acquisition Act. Under section 112 (2) (f) of the Act, the Minister may also transfer easements registered in water rights. In the context of this Act, an easement refers to a right to cross or otherwise use someone else's land for a specified purpose. In the context of water rights, this could mean the right to access and use a water source located on another person's property. Section 112 (2) (f) of the Act seems to suggest that the Minister has the power to transfer these easements. This means that the Minister can change who has the right to use the water source. This could be done for a variety of reasons, such as to ensure fair access to water resources, to manage water scarcity, or to protect the environment.

Salient features of the Act relating to water security are as follows:

- water allocation priorities (section 6)

- strategic environmental assessment and EIA (section 8 &9)
- IWRM plans (section 31)
- protection and prevention of water sources pollution (section 32)
- water abstraction and use (part VII; Sections 43 to 79).



Dialogues enhance cross sectoral coordination. Working Group Champion, also the Country Director of Water for People, Ms Rehema Tukai, facilitating a dialogue supported by GWL during the development of the Response Strategy.

2.3.2 Water Supply and Sanitation Act 2019

The Water Supply and Sanitation Act of 2019 provides for delivery of water supply and sanitation services in urban and rural areas and established the Water Supply and Sanitation Authorities (WSSA) and Rural Water Supply and Sanitation Authorities (RWSSA). These authorities function more as utility operators than providing control and regulation, however, having many location-linked offshoots, or WSSAs such as the Arusha Urban Supply and Sanitation Authority (AUWSA).

The function of water resources conservation are also mandated to these institutions. Sometimes WSSAs (e.g. Dar es Salaam Water Supply and Sanitation Authority, DAWASA) are perceived to regulate private providers of water and sanitation services by registering them and controlling them regarding the services they provide.

2.3.3 Environmental Management Act 2004

The Environmental Management Act (EMA) of 2004 provides the legal and institutional framework for the sustainable management of the environment in mainland Tanzania. It includes compliance and incentive mechanisms for environmental management at all levels of governance – national, regional, district and village level – in the management of environmental resources and enforcement of the law. The Act outlines

principles for management, impact and risk assessments, prevention and control of pollution, waste management, environmental quality standards, public participation, compliance, and enforcement; to provide for implementation of the National Environment Policy; and provide for continued existence of the National Environment Management Council.

Salient features of the act relating to water security are as follows:

- conservation and protection of environment (sections 50 and 51)
- protection and management of rivers, riverbank, lake or lakeshore and shorelines (section 55)
- prohibition of human activities in certain areas (section 57)
- environmental obligations under water law (section 60)
- EIA and other assessment (section 61)
- pollution prevention and control (section 106)
- environmental quality related standards (Sections 140, 143,144)
- compliance and enforcement (section 182)

2.3.4 Land Acts (Village Land Act 4 & 5, Land Act No 9, and Land Act No 8 Urban Planning)

The National Land Policy, 1997, advocates the protection of land resources from degradation for sustainable development. The policy addresses many environmental issues relevant to water resources development projects, such as land use planning. The policy designates three categories of land: general land, reserved land, and village land. General land is vested under the President of the United Republic of Tanzania, administered by the Land Commissioner. Reserved Land is mainly under authorised institutions such as national parks, game reserves and watersheds. Village land is demarcated for an established village and administered by the respective village government.

There are procedures which intentionally shift the title from one category to another. The Policy states that individuals should be allowed to obtain titles within an area not designated for communal uses, land conservation, and other specified village or communal projects – areas that need protection against encroachment by outsiders and individual villagers. Villagers, through their village assemblies, will therefore be allowed to survey such lands and get separate Certificates of Village Land.

Land use planning takes into consideration the land capability to ensure proper management of coastal, urban, and rural land resources, and promote resource sharing and multiple land use techniques in areas of conflicting land use. The policy also advocates for community participation in resource management, land use, and conflict resolution. The policy is enforced by laws such as the Land Act CAP 113 of 1999, and Village Land Act CAP 114 of 1999, the Land Acquisition Act 1967, and the Urban Planning Act No. 8 of 2007.

2.3.5 Other important water-related legislations

- The Forest Act of 2002 and its amendments of 2022
- The Mining Act of 2019 and its amendments
- Wildlife Conservation Act 2022 and its amendments
- Tanzania Meteorological Authority Act of 2019
- Water Supply and Sanitation Act 2019
- National Irrigation Act of 2013
- The Rural Energy Act 2005
- The Local Government Act 1982 (Urban Authorities)
- The Local Government Act 1982 (District Authorities)

Chapter 3: Sectoral legislation analysis

3.1 Sampled sector legislation analysis

This section analyses legislation for governing protection and conservation of water resources, especially groundwater control areas, water resources protected zones, water pollution, water permitting and water resources monitoring. It analyses the extent of support from other legislation in the implementation of the WRMA and its amendments. Both regulatory legislation and users' legislation are reviewed.

In its review of legislation, the team looked to identify examples of fragmentation, overlap, duplication, conflict, contradiction, or gaps. The definitions of those are provided in Table 3.1.

Fragmentation – A situation in which multiple actors operate in the same sector and there is room for efficiency improvements in the activities.

Overlap – A situation in which multiple actors or multiple government programmes have the same goals or are promoting the same goals or strategies.

Duplication – A situation in which multiple actors promote the same goal in the same manner.

Gap – A situation in which gaps are identified in the activities but nobody is responsible for tackling them.

Conflicting – A situation in which legislation or its regulations conflict with each other in the delivery of services.

Contradicting – A situation in which legislation or its regulations assert the opposite, denying the truth of facts.

Table 3.1. Definition of key sector issues

3.1.1 Groundwater-controlled areas

An area declared to be a *groundwater-controlled area* under Section 38 of the WRMA 2009 has key functions related to conservation. Table 3.2 provides a summary of core functions in each of these provisions.

Under the Land Act land authorities are instructed to identify and allocate land for special and specific uses. To stop other sector players taking advantage of them, they are to demarcate and gazette the areas under their jurisdiction. However, it is reported that in Tanzania only three (3) percent of urban land use plans are registered, while for village land use plans only seven point seven (7.7) percent are registered. For example, it is reported that from 2015 to 2022, only 999 out of 12,317 villages have prepared land use plans (United Republic of Tanzania 2023). This leaves much of urban and village land vulnerable to unchecked exploitation with potential negative environmental consequences.

There are potential overlaps between the Forest Act and WRMA on demarcation powers and roles, specifically concerning the definitions of the water resource and sources. Further analysis of regulations made under these acts (to guide their implementation) is needed to reveal the extent of this problem. For example, under the forest legislation, a demarcated and gazetted area, restricting it for protection and conservation, can also be advantageous for water resources management. Currently, every sector addresses their jurisdiction area in the absence of the other (especially when formulating regulations and guidelines). Authorities should avoid duplication in both control and enforcement.

The examples of these three legislations clearly shows inadequacy in coordination norms. This is a gap which could cause negative impacts allowing for the invasion and abuse of potential ground water areas or well

fields and degradation of the environment impacting aquifer recharge areas potentially polluting groundwater sources.

Functions	WRMA	Forest	EMA	Mining	Wildlife	Lands	Observation or Expert interpretation of legislation alignment
Demarcate	♣	♣		♣	♣	♣	Potential overlaps and also complementary Land use plans
Gazette	♣	♣			♣	♣	Potential conflicting and complementary
Prevent	♣		♣	♣	♣	♣	Conflicting and complementary

Table 3.2. Summary of functions by regulation: groundwater controlled area

Case: In areas such as Mzakwe (Makutupora Groundwater Controlled Area) which have already been gazetted, with compensation paid to landowners in exchange for not irrigating all of their arable land, there are still instances of new Certificates of Occupancy being issued within the reserved areas. There is one ongoing court case in Mzakwe on water extraction from the Wami-Ruvu Basin. Here, because of inadequate coordination, the assorted legislation does not clearly stipulate limits and boundaries of powers among the respective custodians. This may cause overlaps that are not necessarily due to individual behaviour.

3.1.2 Protection of water sources

Protection of water resources is one of the biggest challenges for a growing population in terms of both social and economic demands. The source of water can be vulnerable due to ease of accessibility.

The primary protection of water resources is found in the WRMA 2009, which protects against human activities that may endanger both water quantity and quality. It provides for identification, demarcating and gazettement of water sources. This includes all water resources (surface water and groundwater), including rivers, springs, lakes, reservoirs, aquifers, and rainwater-harvesting facilities.

A *protected area* is defined in the WRMA 2009 as an area such as a nature reserve, game protected area or reserve, forest reserve, marine park, national park, watershed, or any such areas so gazetted pursuant to any act.

The Forest Act protects natural forest, which may include a water source, while the Land Acts also allocate land to safeguard water sources subject demarcation and gazettement by related sectors. Quite often these sectors do not talk to each other. The comparatively small number of land use plans (discussed above in 3.1.1) demonstrates the challenges in protecting and conserving water sources. Conflicts regularly occur between farmers and pastoralists for land and water for agriculture and pasture, and governing policy is often unable to provide the clarity needed for dispute resolution.

Table 3.3 shows how various legislations relate functionally to protect water resources.

Function	WRMA	Forest	EMA	Mining	Wildlife	Lands	LGA	Observation or Expert interpretation on legislations alignment
Demarcate	♣	♣		♣	♣	♣	♣	Potential overlaps and also complementary Land use planning
Gazette	♣	♣			♣	♣	♣	Potential conflicting and complementary
Prevent	♣	♣	♣	♣	♣	♣	♣	Conflicting and complementary

Table 3.3 Summary of functions by regulations: protected zones and areas

The issues become even more complex when Sections 54, 55, and 56 of EMA 2004, are introduced since the NEMC Local Government Authority (LGAs) are also empowered to make guidelines to ensure water sources (banks and shorelines) are protected. Also, in these sections, wetland areas and reserves are declared by the Minister of Environment. According to the EMA, the definition of wetland includes water (stagnant or flowing). Here is where potential overlap happens: the Wildlife Act (R.E. 2019) *also* establishes wetland areas and reserves. Meanwhile, neither the EMA 2004 or the Wildlife Act refer to the WRMA 2009 at all.

“There are both complementary and contradicting issues. Policies and acts supporting Water Resources Management and Environment sectors facilitate the conservation of water resources and pollution prevention, however, there are contradictions such as:

Section 57 of EMA 2004 prohibits any permanent activity that may compromise conservation within 60 m of a water body but, in practice, the water sector may take prohibition beyond 60 m to 65 m, 70 m, etc. This could mean that for certain water bodies or under specific circumstances, the buffer zone where activities are restricted might be larger than 60 meters.

Issuance of discharge permits are not harmonised between these two sectors.”

– Interview with an anonymous National Environmental Management Council expert

The case of farming communities along the Mgeta River in Mvomero District in the Upper Ruvu sub-basin illustrates what happens when institutional frameworks for WRM are not clear and followed: Farmers, leaders and officials in Mgeta were unaware of policy, law, roles and responsibilities for WRM. The lack of coordination was leading to conflicts, resource depletion, degradation and hardship for almost 5000 water users. Actors at the Ward and Village level were not aware of Tanzania’s water policy or the legal frameworks governing water use. They neither understood the government’s role in water resources management nor their own roles and obligations. The absence of coordination between users was found to be a key risk for the community. A major part of the solution for Mgeta was to establish a WUA¹.

WUAs are at the centre of protection and conservation of water resources in their jurisdiction areas, but they are regularly faced with challenges of not being adequately recognised by the local government authorities (since, institutionally, WUAs are not within the LGA framework).

¹ Shahidi wa Maji (2015) case study Mgeta: http://www.shahidiwamaji.org/s/Mgeta-Bulletin_FINAL.pdf

3.1.3 Water pollution control

The WRMA 2009 defines the pollution of water resources as any direct or indirect alteration of physical thermal, chemical, or biological properties of the water resource so as to make it (a) Less fit for any beneficial purpose for which it is or may reasonably be expected to be used; and (b) Harmful or potentially harmful to (i) the welfare, health, and safety of human beings, or (ii) any aquatic or non-aquatic life property or the environment. Table 3.4 shows how various legislations relate to control pollution.

The discharge permit issuance is done by BWBs, which also monitor and enforce compliance. Meanwhile the NEMC also has a monitoring function that includes penalising offenders. Quite often, however, monitoring and enforcement are not effectively coordinated between the two entities.

The challenge also relates to local governments implementing the EMA regulations, specially Part VIII on pollution prevention and control, and Part 109 on prohibition of water pollution. Duplication or overlapping results in confusion for the licensee as well as those charged with regulation of enforcement. The result of unclear lines of accountability is that some offenders get away with polluting, as is the case with Dar es Salaam’s main river, the Msimbazi².

	WRMA	EMA	Mining	Water supply and sanitation	Lands	LGA	Observation or Experts interpretation on legislations alignment
Licence	♣						BWB only mandated to issue discharge permit Mining liability with mining licence Utility performance with Energy and Water Utilities Regulatory Authority
Monitor	♣	♣	♣	♣	♣	♣	Potential overlaps WRMA and EMA, in some cases each work in isolation
Enforce	♣	♣	♣	♣	♣	♣	Potential overlaps with WRMA and EMA

Table 3.4. Summary of functions by regulation: pollution control

3.1.4 Permission to access: water permits

This section describes the permitting functions of BWBs and other authorities regarding water allocation, pollution control, protection, and conservation functions.

According to the WRMA, BWBs issue several types of water permits: water use, groundwater abstraction, drilling, discharge, and easement. BWBs also register WUAs.

The Ministry of Water issues licenses to water-well-drilling companies and registers groundwater professionals involved in groundwater exploration and drilling.

Table 3.5 shows how various legislations relate functionally to permitting. The most common permit issued is the water-use permit, which has to be periodically renewed. The WRMA defines water-use permits as any permit to divert, dam, store, abstract or use water from surface or underground water sources registered in

²Case study from Shahidi a Maji on Msimbazi river: <http://www.shahidiwamaji.org/s/Msimbazi-Bulletin-FINAL-cftj.pdf>

the Water Register under the provisions of WRMA. However, sometimes the term “permit” is applied to what is formally registered as a water right issued under the Water Utilization (Control and Regulation) Act 1974, which is of a much longer duration than a permit.

	WRMA	EMA	Water supply and sanitation	Lands	LGA	Observation or Experts interpretation on legislations alignment
Licence	♣	♣	♣	♣	♣	The BWB the has mandate to issue water use permits for abstracting water from any source of water
Monitor	♣		♣			Provision to issue local permits for groundwater to private individuals for business in urban utilities
Enforce	♣	♣	♣	♣	♣	

Table 3.5. Summary of functions by regulation: water use permit

The WRMA empowers the Minister of Water responsible for water affairs through BWBs to issue a water use permit upon submission of a formal application and application fee. The permit is issued for both surface and groundwater sources.

Analysis of other water-related legislation shows that the EMA 2004 under clause 55(1) and (2) also Section 56(4) implies that the Minister, after consultation with other sector authorities, is empowered to issue authorization or permits for apparently or otherwise prohibited actions to be carried out in water sources.

More confusion can be observed when considering wetlands and who has the legal authority to make decisions, with potential for conflicts on the use of such sources of water if they are not properly regulated:

Section 56(1) of EMA gives powers to establish wetland reserves and wetland areas to the Director of Environment, sector ministers, and LGAs. In theory, the same actors could issue permits to use wetlands for other activities, contrary to the provision of the EMA and WRMA.

However, the WRMA Act 2009 also includes wetlands in its categories of water sources: a ‘water source’ means- (a) a river, tributary, estuary, lake, swamp, marsh, or other wetland; (b) an aquifer or a spring; (c) sea waters and interface between sea water and fresh water (d) a dam, pond, or reservoir.

In principle from this definition, the Minister for Environment and the Director or an officer at Local Government may issue a permit for activities in the wetlands even though it is defined as a water source under the WRMA Act 2009.

These excerpts sections show how the EMA may complement the WRMA but could also cause duplication if not carefully coordinated.

3.1.5 Monitoring of water resources

Section 16 of WRMA 2009 defines the duties of the Director of Water Resources as supervising and coordinating data collection and national water resources assessments, as well as facilitating the conduct of water audits and providing technical support in terms of information tools, basin models and decision support systems.

Section 23 indicates that BWBs support the Director of Water Resources in monitoring water resources, notably collecting, processing, and analysing data for water resources management; and maintaining and updating assessments of the availability and potential demand for water resources.

This allows the Director of Water Resources and BWB to install an equipment system to collect and analyse data for the purpose of monitoring and allocation of water resources.

However, Section 6 of the Tanzania Meteorological Authority (TMA) act gives that institution the responsibility to regulate and coordinate meteorological activities in the United Republic of Tanzania, safely store all meteorological records and data, and in Subsection (1), the right to install equipment for observing and recording meteorological information in, on, over or under any land, or water body.

These functions and powers of TMA could potentially interfere with the operations and mandates of the Directorate of Water Resources and BWBs.

A breakdown of water resource monitoring and compliance mandates is provided in Table 3.6 below.

	WRMA	EMA	Water supply and sanitation	TMA	Observation or Experts interpretation on legislations alignment
License	♣	♣		♣	The BWB has a mandate for monitoring of resource source of water overlap with EMA
Monitor	♣		♣	♣	TMA legislation provides powers above WRMA and thus can contradict and overlap WRMA on weather
Enforce	♣	♣	♣	♣	Gaps in the WRMA on specific monitoring mandate

Table 3.6. Summary of functions by regulation: monitoring of resources and compliance

3.1.6 Summary of the sectoral legislation analysis

A number of key issues emerge from the sectoral legislation analysis. While a specialized lawyer would need to confirm them, these observations come from the lived experience of water practitioners over the course of implementing their core functions. Further legal analysis of each of these is needed.

1. Overlapping implementing mandates and modes for some of the regulations

Subject to expert interpretation, the analysis suggests that there are several overlaps between the WRMA and those of Forest Act, EMA, mining, and wildlife. The overlapping incidences are mainly in areas of protection, pollution control, and conservation. In addition, the TMA and WRMA potentially overlap in monitoring and permitting. This analysis may require additional evidence in the form of case studies to validate the literature review, with a few examples of these cases.

2. Contradicting and conflicting core functions and regulations

Subject to legal expert interpretation, the analysis of certain areas of legislation reveal a few notable potential contradictions for a water practitioner, such as the TMA’s power of monitoring equipment and data over those charged with executing water resources management. The law empowers TMA to regulate BWBs and anyone who installs, collects, and processes meteorological and hydrometeorological data. There are also contradictions in source protection between the Forest Act and the EMA, such as the definition of a water source in the Forest Act as well as the 60-metre buffer discrepancy observed in the EMA 2004. There also areas of conflict between the EMA and the Wildlife and Forestry Law in defining a water source.

3. Complementarity of legislation

Analysis of associated regulatory water legislation indicates an opportunity for the bodies implementing WRM Act to take advantage of the delivery of their core functions. This will avoid overlaps in delivery, duplication of resources, and scaling of core functions in areas of protection.

4. Coordination among IWRM actors

Coordination across IWRM actors is a major issue that challenges the delivery of services. The functions of different actors for managing water resources in Tanzania are explicitly provided under the WRMA, and not any other legislation.

The Director of Water Resources is charged with coordinating the activities of the Basin Water Boards (BWBs), supervising and coordinating data collections and national water resources assessment, and coordinating and harmonising external funded projects and programmes affecting water resources.

Meanwhile, BWBs are charged with coordinating inter-sectoral water resources management at basin level and serve as a channel of communication between the sectors and other water users.



Vice President H.E. Dr Philip Mpango launching the Catchment Conservation Plans to the applause of the Minister of Water, the Honorable Jumaa Aweso, during the 2022 Basin Boards Annual General Meeting.

Chapter 4: Root cause analysis

This chapter analyses the root causes of the issues identified in the legal and regulatory analysis, identifies the reason for the cause, and suggests a solution.

4.1 Overlapping legal and regulatory mandates

Overlapping mandates, as referenced in Table 3.1, can be observed when multiple actors or multiple government programmes are promoting the same goals or strategies. The analysis revealed existing and potential overlaps. The WRMA of 2009 and its amendment regarding water resources protection and conservation overlaps with the Forest Act 2000, the EMA of 2004, Land Acts, and TMA.

The evidence shows overlapping legal and regulatory mandates are a critical barrier to effective climate-resilient water resource management by contributing to:

- Duplication of efforts, especially in resource allocation and use;
- Confusion for clients/customers regarding which regulation to follow;
- Inadequate enforcement; and
- Breakdown of law (it is easy to default the provisions of law if responsibilities among law enforcers are not clear).

These observations are supported by the following illustrative examples:

Overlapping control over water pollution by water resources management authorities, such as the BWBs, and environment management authorities, such as NEMC: NEMC and BWB both enforce and penalise offenders on water pollution. Why would both be mandated by the same government regulatory authority for the same function? And if each knows the other is performing this work, are either of them actually executing it or are they assuming the other is doing so? Or worse, are the actors disputing with each other over who has “real” authority to act?

Overlapping control over resources protection between land authorities and BWB: It is claimed that it is the responsibility of land authorities to map and demarcate areas for various purposes, including protection. However, BWBs also have the responsibility of demarcating, and the Minister for Water declares protected zones. This lack of clarity and who has authority to do what can give rise to behavioral problems between personalities. For example, the land authorities claimed that a demarcated area with a National Gazette Number was not known to them and dismantled a beacon installed by the BWB in Lake Rukwa basin and allocate plots for residents to construct houses.

Overlapping control over the definition of protection and conservation between forest authorities and water authorities: The case of the Forest Act of 2002 and WRMA, 2009, highlights the importance of definitions, in this case what is meant by ‘a natural resource’. Igombe Dam Forest Reserve was established in Tabora Municipality under the Forest Act and the Tanzania Forest Services (TFS) is mandated to preserve and control utilization of forest resources. The Igombe Dam, situated within the Reserve, is used to supply water to the Tabora Municipal residents. The dam is facing problems of siltation, frequent droughts, water pollution, and illegal fishing, as shown in Figure 4.1.



Figure 4.1. Illegal fish traps in the Igombe dam in the Igombe Dam Forest Reserve

Source: Lake Tanganyika BWB Information

The Lake Tanganyika Basin Water Board (LTBWB) reports that this method of illegal fishing was found to be practiced by community members around Igombe dam at its upstream end within the forest reserve. This practice involves blocking the river to trap fish of all sizes using a device made from wooden materials. It was also reported that community members had been involved in conducting farming activities in the forest reserve. Both illegal fishing and farming activities in the forest reserve stopped after intensive awareness campaigns conducted by WUA in 2022.

LTBWB has several other examples showing the need to further conserve the Igombe catchment. They include the heavily silted reservoir area, which requires dredging to increase the volume, ongoing dam rehabilitation works (damaged by human activity), illegal logging, charcoal making, brick making, wildfires, cultivation, and livestock grazing within and in the vicinity of the Igombe Dam Forest Reserve. It is argued that under the Forest Act alone, some of the WRM concerns (water quality, water quantity, and the sustainable water supply network in Tabora Municipality) would not receive the necessary attention.

As a result of these concerns, in 2022, Lake Tanganyika Basin Water Board decided to further protect the entire Igombe reservoir catchment, which means that a larger area than the forest reserve will be gazetted. This decision was made because the protection objectives of the two institutions differ, as noted above. Although, it is possible for TFS to amend their Government Notice particulars to include WRM objectives, there is currently a potential overlap.

However, as is seen here is like having a Government Notice inside another Government Notice which under proper coordination should not happen. This is a case of overlap itself.

Likely causes of overlapping include:

- Different legislation with overlapping mandates;

- Ministry of Water's weakness in coordinating with implementing agencies, which exacerbates the confusion in the delivery; and
- Water Resources Management, Forestry Department, Land Use Planning Commission, Local Government Authorities planning and working in silos, where implementing agencies are only accountable to their line of business and only concerned with their respective/guiding legal framework.

The following have been identified as root causes:

- Unclear system for executing the legal and regulatory mandates, especially issues of accountability and ownership. This is especially true for issues concerning the relationship between political interests and professional conduct and ethics.
- Instruments for coordination (including guidelines) are either not adequate or absent.
- The procedure for developing legislation works in theory but not in practice, leading to legislation being passed that has not been reviewed by the full set of affected parties and enables overlapping mandates to exist. For example, according to the Director of Legal Services in the Ministry of Water, adequate stakeholder engagement and involvement is required while preparing acts and regulations. The processes for making regulations is initiated by the responsible ministry and is supposed to include all relevant ministries and stakeholders. Before the regulation is finally gazetted by the respective minister, the drafts are sent to the Attorney General for further drafting, legal scrutiny, and endorsement. There are inadequate checks and balances on the participation modalities. This is especially true in the process of preparing regulations and guidelines. This may be due to limited funds and the costs involved in the stakeholder engagement processes.

Possible solutions to the root causes include:

- Initiating a legal review process to quantify the extent of the overlaps;
- Creating dialogue with key stakeholders to understand the barrier of coordination as these mandates sit in the Ministry of Water (according WRMA, 2009 and its amendment, 2022);
- Evaluating the effectiveness of the legal review process and address the gaps; and
- Resolving overlaps among acts using existing legal instruments.

4.2 Contradicting and conflicting core functions and regulations

A problem with contradicting and conflicting core functions and regulations is observed between multiple regulatory agencies. Examples from the review include the following:

The enforcement of the 60-m buffer zone (from each river, lake, or reservoir bank) differs from one authority to the other. This causes confusion to the public on which legal mandate to follow. Sometimes urban planners allocate plots and buildings within the buffer zone.

Both the Wildlife Act and the EMA can establish wetland reserves and wetland areas for conservation and protection, which may conflict with the WRMA. While defining the wetland, the two legislations include water sources. The actions which may be allowed by these legislations may sometimes be prohibited by the WRMA 2009, thus becoming both contradictory and confusing for compliance purposes.

The Forest Act enables the collection of levies from water users under their jurisdiction for protection of natural forest which is separate from user fees collected by BWBs. Asking a water user who pays a water-user fee to BWB to then pay another levy for the same purpose to the Forestry Authorities is confusing at best. The Principal Forest Regulation 2004 and its subsequent amendments place daily fees on certain aspects, such as navigation (inland waters) in the forest reserves. At the same time, the WRMA regulations, 2022, have similar charges. This may be a contradiction on for water users but could easily be solved if coordination is improved. Other regulations with similar provisions include the Environmental Management Act (Fees and Charges) Regulations, 2021.

The Mining Act regulations (2010) and their various amendments provide for management of water resources (use and pollution, and some other specific actions on water resources) – responsibilities entrusted to BWBs. While BWBs are empowered by the WRMA 2009 to deal with issues of WRM (surface water, waste water disposal, groundwater management), the Mining Act regulations and other subsequent amendments do not make reference to the WRMA 2009 and its regulations when designating certain powers to the Commissioner of Mining and other officers in that sector. Section 35(2) of CAP 123 (R.E. 2019), for example, gives a holder the right to enter a prospective mining areas and erect camps, temporary buildings and installations in any water-forming part of said space. This may result in conflicts if enforced.

The Wildlife Conservation (Prospecting, Mining of Uranium, Exploring and Production of Oil and Gas in Game Reserves) regulations 2017 (GN 88); do not mention conservation areas under the jurisdiction of other sectors, including those under WRMA, 2009, when defining ‘conservation areas’.

Likely causes of the contradictions and conflicts include:

- absence of a system to check against and integrate related legal mandates;
- absence of inter-sector learning processes;
- presence of silos

The following have been identified as root causes:

- Weakness in participatory processes while enacting legal and regulatory provisions;
- Inadequate awareness of other sectors regarding expectations for IWRM;
- Inadequate accountability mechanisms in managing multiple regulators.

Possible solutions to the root causes include:

- Initiating an all-inclusive review of the legal and regulatory development process;
- Launching an intensive IWRM awareness campaign (including policies, legislation, and programmes) to all stakeholders, especially targeting public institutions;
- Resolving conflicting or contradicting provisions using known legal methods.

4.3 Complementary legislation

Under complementary legislation, consideration is made of those legal provisions which serve the requirements and needs of legislation of other sectors. This investigation found that the opportunities posed by complementary legislation were not fully capitalised upon by the reviewed institutions due to silo planning, inadequate financial resource bases, and shortfalls in services delivery. Examples where complementary legislation could be leveraged include the following:

- Land use planning is a good tool that if well implemented would support many sectors to achieve their objectives at reasonable cost. However, with only a 3.3 percent coverage of village land use at present, it is doubtful that this can be achieved in a resource-constrained state with the average cost of developing a plan estimated to be 40 – 50 million Tanzanian Shillings (roughly USD 16,000 – 20,000) per village. That said, if the government chose to prioritize this activity, it could be done.
- The Forest Act provisions allow for demarcation of water sources. The BWBs can capitalise on its good relationship with forestry agencies to take this opportunity to scale because the Forest department has relatively good financial capital from selling of the Forest products.
- The EMA provides for easy collaboration with the WRMA, especially as it is a framework legislation. The collaborative process for preparation and implementation of the Lower Kihansi Hydropower Project and Environment Management Plan could be replicated or mandated as a best practice. This was an example in which all the authorities worked together under the coordination of DoE and NEMC.

Effective use of complementary legislation has to safeguard against potential weaknesses, such as:

- Vertical accountability blocks (rare or absent horizontal accountability), inadequate creativity and innovation;
- Inadequate collaboration among sectors; and
- Lack of incentives to coordinate and innovate.

The following have been identified as root causes:

- An existing policy environment that perpetuates silos rather than supporting coordination, creativity, and cross-sectoral communication;
- Individual sectors within the same larger public sector working in silos for the same or similar objectives are not discouraged; rather, they are encouraged.

Possible solutions to the root causes include:

- Collaborate with institutions outside the public sector such as academic research organisations, the private sector, and NGOs to stimulate creativity and new processes to ensure legislation complements rather than conflicts other legislation;
- Mobilise the public sector to capitalize on complementary legal provisions and avoid duplication of efforts by using various available avenues, including selective and prudent resource allocation to complementing sectors.

4.4 Summary

The three root causes in the three categories of issues (overlapping, contradicting or conflicting, and failure to complement) have been merged into six overarching root causes as follows:

1. Fragmented implementation of the Institutional Framework for Water Resources Management Act. This includes the following root causes:
 - Weakness in participatory processes while enacting legal and regulatory provisions;
 - Inadequate accountability mechanisms in managing multiple regulators;
 - Inadequate or absent instruments for coordination (including guidelines).
2. Overlapping sectoral mandates and integrity of practitioners. This has one root cause:
 - The fact that different legislation with overlapping mandates exist. This leads to unclear systems for operating the legal and regulatory mandates, especially issues of a) accountability and ownership, and b) managing the relationship between political interests and professional conduct and ethics.
3. Limited financial and human resources. This has two root causes:
 - Impractical procedure for developing legislation – and limited funding to go through the required ‘impractical procedure’
 - An existing policy environment that perpetuates silos rather than supporting coordination, creativity, and cross-sectoral communication

Chapter 5: Conclusion and recommendations

5.1 Summary of work and findings

The analysis conducted to assess the legal and regulatory mandates of consumptive and regulatory sectors and their impacts on sector performance has been carried out successfully through literature review and focused interviews. Pertinent legislation was reviewed but policies were not deemed necessary.

The areas of interest identified for analysis were groundwater control areas, water resources protected zones, water pollution, water permitting, and water resources monitoring. For each of these categories, licensing, monitoring, and enforcement roles were investigated.

Legislation was reviewed to identify which provisions were likely to demonstrate potential for overlapping, contradicting/conflicting, or complementary roles and responsibilities, powers, or functions. Almost all the investigated legislations demonstrated the opportunity to be complementary, with minor cases in which some provisions seemed to overlap with the WRMA. Legal frameworks that provide for procedures to resolve the overlaps or conflicts if they happen to impede effective enforcement of laws exist, but it is clear from the investigation that coordination and collaboration among sectors is weak.

The overarching root causes for this weak coordination and collaboration among sectors have been assessed to be:

- Fragmented implementation of the Institutional Framework for Water Resources Management;
- Inadequate stakeholder engagement;
- Overlapping sectoral mandates and integrity of practitioners
- Limited financial and human resources.

Additional observations:

The interviews conducted were limited in terms of number of people or groups and time allocated for the exercise. As a result, the interviews have not added much to the literature review.

The establishment of Multi-Sectoral Forums (at national, basin, and catchment levels) have not been shown to effectively and actively engage stakeholders fully in WRM in their respective jurisdictions.

There are always national efforts, initiatives, and processes geared towards water resources management and cooperation. The National Water Board (NWB) is supposed to issue bi-annual water resources status reports for stakeholders. This can be a good meeting point for all sectors to find information on the implementation of Integrated Water Resources Management and Development (IWRMD) Plans.

5.2 Recommendations

1. Improve cross-sectoral coordination by legally providing binding and pragmatic clauses in the current legislation to improve budgetary allocation for the management of water resources instead of small and isolated budgets managed by different institutions and ministries.
2. Sector benefiting directly or impacted directly by presence and absence of water resources should contribute to conservation efforts within water catchments to ensure sustainable water supplies. The model employed by TANESCO in which revenue collected from sales of their electricity products support the work of the Rural Electricity Authority and Energy and Water Utilities Regulatory Authority can be replicated, with a certain percentage of revenue from Tourism, Mining, Fisheries, Energy being allocated for the management and conservation of water resources via a contribution to the National Water Fund, If this model is not considered feasible, similar models can be explored.

3. Because water-related legislation is mostly complementary, the institutional framework for WRM, the Water Resources Management Act, should be improved to mandate compulsory coordination and collaboration among all players and authorities of related sectors (mining, oil and gas, and land use planning). Clear coordination performance indicators should be established that are both long term (aligning to WSDP III, TanWIP, and the Mbeya Declaration) and short term (aligning to annual sector plans, Mbeya declarations). Establish clear sector-based performance indicators on IWRM, including investment, harnessing commitment from high-level decision-makers from within the ministries and building on the country's experience in addressing critical issues such as the recent water crisis in Dar es Salaam, cholera, and COVID-19.
4. Include coordination requirements for Water Resources Management and Development in all sector legislations and regulations, specifying essential responsibilities and accountabilities, including funding.
5. Strengthen cross-sectoral accountability by developing and enforcing vertical and horizontal accountability frameworks regarding water resources management and use.
6. Ensure enforcement of the Water Resources Management Act (WRMA) by Central Government, Local Government Authorities, and independent organizations, through a focused approach, this includes regular training and capacity building for all entities, establishing effective monitoring and evaluation systems, creating clear reporting mechanisms, encouraging inter-agency collaboration, conducting public awareness campaigns about WRMA compliance, and reinforcing legal and administrative measures to enforce the Act's provisions and penalize non-compliance.
7. Ensure transparency in water allocation by enhancing transparency in water allocation, ensuring public access to information, and involving a diverse range of stakeholders in decision-making processes. Establishing clear, equitable criteria for water allocation and implementing regular reporting and auditing mechanisms are essential. Utilizing modern technologies like GIS and remote sensing in monitoring and transparent reporting of water usage, thus fostering accountability and trust in the water allocation process
8. Strengthening multi-stakeholder platforms at all levels (NMSF, Basin Multi-sectoral Forums, Catchment Multi-sectoral Forums) by allocating funds to support their activities and by communicating regularly with stakeholders.
9. Periodically, every ten year, review WRM-related policies to accommodate the changing environment.



National Multisectoral Forum for Water Resources Management stakeholders in one of the Working Group's working sessions supported by GWL during the development of the Response Strategy.

References

Ministry of Water (2022) *Strategic Action Plan for the National Multi Stakeholder Forum 2022–2026*. Ministry of Water, Dar es Salaam.

Shahidi wa Maji (2015) *Pollution and flood impacts*. Bulletin 1. Shahidi wa Maji, Morogoro, Tanzania.

Government of the United Republic of Tanzania (2023) *Tanzania's 2023 Voluntary National Review Report on the Implementation of the 2030 Agenda for Sustainable Development*. Government of the United Republic of Tanzania, Dar es Salaam.

Energy and Water Utilities Regulatory Authority. (2022). *Water Utilities Performance Review Report for FY 2020/2021*. Available: <https://www.ewura.go.tz/wp-content/uploads/2022/03/Regional-and-National-Project-WSSAs-Performance-Review-Report-for-FY-2020-2021-.pdf>.

Ministry of Agriculture. (2017). *Agricultural Sector Development Programme Phase II (ASDP II)*. Available: [https://asdp.kilimo.go.tz/uploads/FINAL_VERSION_ASDP_II_NOVEMBER_2017_\(1\).pdf](https://asdp.kilimo.go.tz/uploads/FINAL_VERSION_ASDP_II_NOVEMBER_2017_(1).pdf).

Ministry of Mining. (2023). Budgetary Speech of The Ministry of Mining. Dodoma. April 2023. Available: <https://www.parliament.go.tz/uploads/budgetspeeches/1682668091-document.pdf>.

Ministry of Water. (2019). *Tanzania Water Resources Atlas*. Yekom Consulting Engineers: Tehran. Available: <https://maji.go.tz/uploads/publications/sw1585816688-TWRA.pdf>.

Ministry of Water. (2020). *Water Sector Status Report 2015-2020*. Available: <https://www.maji.go.tz/uploads/publications/en1593170637-WSSR%202015%20-%202020.pdf>.

Ministry of Water. (2022). *Water Sector Development Programme Phase Three (WSDP III) 2022/23 – 2025/26*. Available: [https://www.maji.go.tz/uploads/publications/sw1664866566-WSDP%20III%20FINAL%20FINAL%202022%20\(1\).pdf](https://www.maji.go.tz/uploads/publications/sw1664866566-WSDP%20III%20FINAL%20FINAL%202022%20(1).pdf).

The United Republic of Tanzania (URT), Ministry of Finance and Planning, Tanzania National Bureau of Statistics and President's Office - Finance and Planning, Office of the Chief Government Statistician, Zanzibar. (2022). *The 2022 Population and Housing Census: Administrative Units Population Distribution Report*. Tanzania. Available: https://www.nbs.go.tz/nbs/takwimu/Census2022/Administrative_units_Population_Distribution_Report_Tanzania_volume1a.pdf.

United Republic of Tanzania. (2021). National Five-Year Development Plan 2021/22 – 2025/26, Ministry of Finance and Planning, the United Republic of Tanzania, June

United Republic of Tanzania. (2000) Tanzania Development Vision 2025

Annexes

Annex 1: List of key stakeholders

Key Sectors	Mandate of the Institution/Agency	The responsibilities or mandates these ministries or departments have when it comes to water	Level of engagement
Ministries, Departments and Agencies (MDAs)			
Vice President’s Office (VPO) Division of Environment (DoE) and the National Environmental Management Council (NEMC)	The DoE is responsible for the co-ordination of all national and international matters related to environmental protection and management. It is also responsible for national reporting to the relevant international conventions e.g. UNCCD	The DoE will ensure the alignment and integration of the project activities with national environmental strategies and plans and ensure policy-implementation; it will also assist with securing co-finance commitments and will communicate the results of the study/project to the broader community.	Key enabler and study/project partner, with representation on the Technical Working Group Team.
Ministry of Water (MoW)	The Ministry of Water (MoW) has overall responsibility for national water policies and strategies; management of surface and sub-surface water; and conservation and protection of water resources. It is responsible for sectoral co-ordination, monitoring and evaluation; reviewing policy and legislation; formulating technical standards and IWRM guidelines; co-ordination of trans-boundary water issues; oversight of water quality monitoring; co-ordination of data collection and assessment of water resources; development of water resources of national interest (including dams); supervision, monitoring and evaluation of Basin Water	MoW is the lead executing agency for this project with overall responsibility for implementation. MoW will be responsible for co-ordinating the implementation of all project activities and may be responsible for direct implementation of some of these. It will take the lead role in ensuring ongoing communication with all Ministries, Departments, Agencies and other study/project stakeholders.	Lead implementer and custodian of the study/project.

	Boards and supervision of the Water Resources Institute Agency and the Drilling and Dam Construction Agency.		
The Ministry of Land, Human Settlements and Development (MLHSD)	The MLHSD is mandated with facilitating effective management of land and human settlements in Tanzania.	The Ministry of Lands and Human Settlements is concerned with water resources, particularly the availability of potable water for urban settlements, and inundation. For this reason, it can play an important role in ensuring wise and informed allocation of land for settlement and other uses, in alignment with the objectives of the project.	Key enabler, with representation on the Technical Working Group (TWG).
<i>National Land Use Planning Commission (NLUPC)</i>	The NLUPC is responsible for preparing physical land use plans; formulation and co-ordination of land-use policies and legislation; specification of norms, standards and criteria for land-use planning and the protection and beneficial use of land, and the maintenance of land quality in support of improved socio-economic development and optimal production. It has key decision-making powers in respect of land use planning in Tanzania.	The NLUPC will play a central role in providing planning expertise required for the project and co-ordinating and guiding activities related to land-use planning. It will be directly responsible for implementation of some project activities and will play an important role in the provision of training to PLUMs teams.	Key enabler and study/project partner, with representation on the Technical Working Group Team.

The Ministry of Natural Resources and Tourism (MNRT)	This Ministry is responsible for overseeing the land-based management of all natural, cultural and tourism resources in the country. The mandate of the MNRT includes the development of appropriate policies, strategies and guidelines for managing natural resources and the formulation and enforcement of environmental laws and regulations, including the issuing and monitoring of forest harvesting permits.	The MNRT will develop enabling policy and regulations in support of the project and will work to improve policy-practice interactions. Because land-based management impacts significantly on water quality and quantity, MNRT has an important role to play in securing watershed services and their support is vital for the success of the project.	Enabler, with representation on the TWG.
Tanzania Forest Service (TFS)	The TFS is an executive agency mandated with managing national forest reserves (natural and plantations) and forest resources on general lands.	The TFS has a key role to play in identification of forests to be placed under greater protection, identifying degraded forests for rehabilitation and strengthening enforcement of laws regarding harvesting of forest resources. It also plays an important role in building relationships with communities around prioritised forests and will play an important role in overseeing ongoing implementation of project-initiated activities and providing technical support.	Study/Project partner, provider of technical support and participant in selected study/project activities.
Wildlife Management Agency	(also deal with management of wetlands)		
The Ministry of Agriculture, Food Security and Co-operatives (MAFC)	The MAFC is mandated with providing policy guidance and services to support a modernised, commercialised and effective agriculture and co-operatives system. It works to provide a conducive environment for stakeholders, build capacity of LGAs and facilitate involvement of the private sector in contributing effectively to sustainable agricultural production, productivity and co-operative development.	Because agricultural productivity is reliant on a sustained supply of water, and agricultural practices impact on water quantity and quality, the MAFC can play an important supporting role, in ensuring the uptake of SLM and the adoption of appropriate agricultural technologies that conserve natural resources and sustain livelihoods. It will play an important role in capacity building for SLM in LGAs, in providing improved extension services and in brokering public-private partnerships.	Enabler and project partner, with representation on the TWG

National Irrigation Commission	This commission is responsible in promotion of irrigation practices, development and management of irrigation and drainage infrastructure while ensuring Integrated Water Resources Management	The Tanzania National Irrigation Commission (NIRC) is responsible for managing and promoting irrigation activities across the country. Its mandates include the development and implementation of irrigation schemes, ensuring effective use of water resources for agricultural purposes. NIRC focuses on the construction, operation, and maintenance of irrigation infrastructure, while also supporting the development of irrigation technologies and practices. Additionally, NIRC plays a role in policy formulation and offers guidance on irrigation-related matters, contributing to the overall improvement and sustainability of irrigation in Tanzania	Key enabler and study/project partner, with representation on the Technical Working Group Team.
Ministry of Energy and Minerals (MEM)	The MEM is responsible for facilitating the development of the energy and mineral sectors in Tanzania, through policies, strategies and plans for sustainable use.	<p>The Ministry of Energy and Minerals (MEM) has a significant role in water resources management since it has overall responsibility for the management of mining industry which is a major water user, potential source of pollution and producer of sediments which flow into water courses in the targeted river catchments.</p> <p>The MEM will play an important supporting role by assisting with the regulation and monitoring of illegal wood-fuel harvesting from forests, unregulated mining activities in the targeted sub-catchments and in monitoring and preventing pollution of water bodies.</p>	Enabler, with representation on the TWG
Ministry of Livestock and Fisheries Development (MLFD)	The MLFD has the mandate for overall management and development of livestock and fisheries resources for sustainable achievement of MDGs, the National Strategy for Growth and Reduction of Poverty. Improved livelihoods of livestock- and fisheries-dependent communities, food safety and security, without compromising	The MLFD will play an important role in the project through the provision of baseline data on stocking rates and other aspects related to keeping livestock, and in assisting with the development and facilitation of capacity building and the provision of extension services to promote the uptake of SLM in rangelands.	Project partner, with representation on the TWG

	animal welfare and environmental conservation. It is responsible for building and supporting the technical and professional capacity of local government and the private sector to develop, manage and regulate livestock and fisheries resources sustainably.	They will have a lead role to play in the development of a Sustainable Rangeland Management Plan	
Decision-making Bodies involved directly in Water Resources Management: Water Basin Boards			
Basin Water Boards (BWBs)	The BWBs are responsible for: collection, processing and analysis of data for WRM monitoring and resource assessment; co-ordination of technical aspects of trans-boundary issues in the basin; co-ordinating and approving basin WRM planning/budgets; approving, issuing and revoking water use and discharge permits; and enforcing water use permits and pollution control measures. The Boards resolve conflicts between water users, co-ordinate stakeholders and integrate district plans into basin WRM plans.	Provide baseline data, promote co-ordination and be direct implementers of project activities relating to planning, co-ordination and law enforcement.	Lead implementing agencies (under the MoW), with representation on the TWG
Other stakeholders participating in Water Resources Management			
Water Supply and Sanitation Authorities (WSSAs (Water Utilities)	Water Supply and Sanitation Authorities (WSSAs) own, manage and develop water supply and sewerage infrastructure. They are responsible for preparing business plans to provide water supply and sewerage services including capital investment plans. The functions of the WSSAs also include financing of capital investments.	These agencies will contribute co-finance (and baselines) and will benefit from the increased flow of water and reduced siltation and pollution. They will play an important role in providing baselines and in the institutional set up for co-ordination. Payment for Ecosystem Services (PES)	Study/Project partners and co-funders, with representation on the TWG

RUWASA	Ensures the provision of water services to rural communities, small towns and district headquarters.	The Rural Water Supply and Sanitation Agency (RUWASA) in Tanzania, established by the Water Supply and Sanitation Act No.5 of 2019, is responsible for planning, designing, constructing, and managing water supply and sanitation services in rural parts of Tanzania. Previously, these responsibilities were managed by Local Government Authorities. RUWASA's role is crucial in addressing challenges such as the need for better infrastructure, project management, result-focused service delivery, data-driven decision making, and sustainable financing and maintenance of water projects. It also emphasizes the importance of private sector engagement and technological innovation in improving water services	Study/Project partners and co-funders, with representation on the TWG
The President's Office – Regional Administration and Local Government (PO-RALG) Regional Administrative Secretariat and District Executive Directors	PO-RALG is responsible for improving the coordination between MDAs, Regional Administrations and Local Government Authorities. They are also responsible for monitoring and improving the institutional capacity and management systems of local government to deliver better quality services.	The PMO-RALG will facilitate improved linkages between, and alignment with, the project activities and relevant local government initiatives and programmes. PMO-RALG may also fund, through the Regional Authorities, complementary community development projects linked to Integrated Water Resource Management. They will play a key role in facilitation of the development of land use plans	Enabler and partner, with representation on the TWG
<p>Non-Government Organisations (NGOs) and Civil Society Organisations (CSOs): NGOs and CBOs will support project activities through the ongoing implementation of training, awareness-raising and capacity-building programmes in the targeted study/project activities.</p> <p>Some of the key CSOs involved include SHAHIDI WA MAJI, Tetra Tech through the Maji na Usafi wa Mazngira Program, Water For People</p>			
Others (e.g. Development partners/conservation funds	Conservation International, the Critical Ecosystem Partnership Fund, and others to be identified as project implementation proceeds (e.g. UNICEF, ADB). These organisations could serve as enablers, co-funder's and project associates. The analysis		

should have identified more such stakeholders since this may assist in unearthing problems and solutions WRM including in coordination issues.

Local communities

Academic institutions and professional associations

Ardhi University	Ardhi University (former UCLAS) provides graduate, postgraduate, MSc, PhD and Certificate level education in Architecture and Design, Construction Economics and Management, Environmental Sciences and Technology, Geospatial Science and Technology, Urban and Regional Planning, Real Estates Studies, Housing and Information Systems Management	This is an important stakeholder providing technical inputs into the land use planning process, water and sanitation as well as capacity building involving both technical staff and communities in various aspects especially on land use and catchment conservation and management.	Study/Project Partners
Dar es Salaam University (Institute for Resource Assessment and TANRIC); Sokoine University of Agriculture (SUA); Tanzania Forest Research Institute (TAFORI)	Research institutions and institutions of higher learning	Will provide technical inputs, and baseline data and conduct research in support of study/project activities.	Study/Project Partners
Private sector			
Bakhresa Group of Company (Sugar Plantation)	Commercial farming concerns operating within the study/project footprint	Will provide first-hand experience of interacting with the different water related sectors and regulators and the positives and negatives observations during those interactions and if there are any recommendations	Study/Project partners, with specific roles to be determined



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Ministry of Water

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