



**USAID**  
FROM THE AMERICAN PEOPLE



**TANZANIA MAJI NA USAFI WA  
MAZINGIRA ACTIVITY (MUM)  
CAPACITY BUILDING PLAN OF THE  
LAKE NYASA BASIN WATER BOARD  
(LNBWB)**

**May 2022**

This report is made possible by the support of the American people through the United States Agency for International Development (USAID.) The contents of this report are the sole responsibility of Tetra Tech and do not necessarily reflect the views of USAID or the United States Government.

This publication was produced for review by the United States Agency for International Development by Tetra Tech, through the Water and Development IDIQ (Contract No. GS00Q14OADU138 / 72062121N00001 and Project No. REQ-621-21-000012 under the One Acquisition Solution for Integrated Services (OASIS) contract, Maji na Usafi wa Mazingira- MUM

This report was prepared by: Tetra Tech  
159 Bank Street, Suite 300  
Burlington, Vermont 05401 USA  
Telephone: (802) 495-0282  
Fax : (802) 658-4247  
E-Mail : international.development@tetrattech.com

Tetra Tech Contacts: Bigambo Nandiga, Chief of Party  
Email: Bigambo.nandiga@tetrattech.com  
Bradley Carr, Tetra Tech ARD Project Manager  
Email: brad.carr@tetrattech.com

USAID Contacts: Francis Mtitu, Contracting Officer Representative  
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT  
686 Old Bagamoyo Road, Msasani, P.O Box 9130  
Dar es Salaam, Tanzania

# USAID/TANZANIA MAJI NA USAFI WA MAZINGIRA (MUM)

CAPACITY BUILDING PLAN OF THE LAKE NYASA BASIN  
WATER BOARD (LNBWB)

MAY 2022

## **DISCLAIMER**

This document is made possible by the support of the American People through the United States Agency for International Development (USAID). The contents of this report are the sole responsibility of Tetra Tech and do not necessarily reflect the views of USAID or the United States Government.



# TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
ACRONYMS AND ABBREVIATIONS .....	ii
LIST OF TABLES .....	iii
LIST OF FIGURES.....	iii
INTRODUCTION.....	iv
1.0 DESCRIPTION OF THE DELIVERABLE .....	1
2.0 ASSESSMENT OF CAPACITY GAPS .....	2
2.1 BACKGROUND.....	2
2.1.1 The LAKE NYASA BASIN.....	2
2.1.2 LAKE NYASA BASIN WATER BOARD.....	3
2.2 CAPACITY GAPS .....	3
2.2.1 BASELINE CAPACITY ASSESSMENT METHODOLOGY .....	3
2.2.2 BASELINE CAPACITY ASSESSMENT FINDINGS.....	7
3.0 CAPACITY BUILDING PLAN .....	18
3.1 PRIORITY AREAS FOR CAPACITY BUILDING.....	18
3.2 CAPACITY BUILDING PLAN .....	20
3.3 CAPACITY BUILDING APPROACH.....	26
3.4 MONITORING AND EVALUATION APPROACH .....	26
<b>ANNEXES</b> .....	27
ANNEX I: BASELINE SELF ASSESSMENTS FINDINGS .....	27
ANNEX II: PRIORITIZATION FOR CAPACITY DEVELOPMENT USING PRIORITY INDEX .....	27

# ACRONYMS AND ABBREVIATIONS

BMSF	Basin Multisectoral Forum
BWBs	Basin Water Boards
CBWSO	Community Based Water Supply Organizations
CDP	Capacity Development Plan
CMSF	Catchment Multi-sectoral Forum
CWC	Catchment Water Committees
GePG	Government Electronic Payments Gateway
IWRMDP	Integrated Water Resources Management and Development Plan
LGAs	Local government Authority
MoW	Ministry of Water
MUM	Maji na Usafi wa mazingira
MUSE	Mfumo wa Ulipaji Serikalini
NAWAPO	National Water Policy
NWSDP	National Water Sector Development Plan
PAF	Performance Assessment Framework
RBWB	Rufiji Basin Water Board
RUWASA	Rural Water Supply and Sanitation Agency
SCC	Sub Catchments Water Committees
STTA	Short Term Technical Assistance
WRMA	Water Resource Management Act
WSSAs	Water Supply and Sanitation Authority
WUA	Water users Association

## LIST OF TABLES

TABLE 1 EXISTING BWBS CAPACITY BUILDING PLANS .....	1
TABLE 2 CAPACITY ASSESSMENT DOMAINS FOR LNBWB .....	4
TABLE 3 CATEGORIZATION OF EXISTING CAPACITY GAP .....	6
TABLE 4 CATEGORIZATION OF PRIORITY INDEX .....	6
TABLE 5 CAPACITY GAPS- INTERNAL PROCEDURES AND OPERATIONS .....	7
TABLE 6 WATER RESOURCES MONITORING NETWORK STATUS FOR 2021 .....	8
TABLE 7 CAPACITY GAPS- STAKEHOLDER ENGAGEMENT AND RELATIONS .....	9
TABLE 8 REPRESENTATION OF MEN AND WOMEN IN BASIN FORUMS .....	12
TABLE 9 CAPACITY GAPS- WATER RESOURCES MANAGEMENT FUNCTIONS .....	15
TABLE 10 SOURCES OF LNBWB REVENUE .....	16
TABLE 11 SUMMARY OF CAPACITY GAP SCORES .....	18
TABLE 12 PRIORITY CAPACITY BUILDING ACTIVITIES .....	18
TABLE 13 CAPACITY BUILDING PLAN .....	22

## LIST OF FIGURES

FIGURE 1 LAKE NYASSA BASIN WITH THE CATCHMENTS .....	2
--	---

# INTRODUCTION

The USAID/Tanzania Maji na Usafi wa Mazingira (MUM), Contract No. GS00Q14OADUI38 / 72062121N00001 and Project No. REQ-621-21-000012 under the One Acquisition Solution for Integrated Services (OASIS) indefinity delivery, indefinite quantity (IDIQ) contract is a five-year (August 2021 – August 2026) Activity funded by the U.S. Agency for International Development (USAID). The purpose of this activity is to expand and sustain the provision and governance of Water, Sanitation, and Hygiene (WASH) services. Tetra Tech is the prime contractor for MUM and has engaged subcontractors FSG, WISE Futures, and Iris Group to support on specific tasks.

Specifically MUM will work directly with national, regional and district stakeholders to improve Tanzanian systems for planning, financing, and implementing actions to expand access to WASH and WRM services, using four complementary implementation strategies, namely: Building ownership through continuous stakeholder engagement, strengthening organizational systems and services, applying market-based principles, and learning by doing in 10 districts in four regions of Morogoro, Iringa, Njombe and Rukwa in the Rufiji, Lake Nyasa, and Lake Rukwa basins. MUM will also work in some parts of Lake Tanganyika Basin, where identified water infrastructure projects fall with these parts. More specifically, the Activity will work to complete the following Sub-Objectives (SOs):

- **Sub-Objective 1:** Increase access to sustainable water services managed by the Rural Water Supply and Sanitation Agency (RUWASA) and water supply and sanitation authorities (WSSAs)
- **Sub-Objective 2:** Increase access to finance for water, sanitation, and hygiene
- **Sub-Objective 3:** Strengthen the market for sanitation and hygiene products and Services
- **Sub-Objective 4:** Strengthen basin water boards and water user associations to enhance stewardship of water resources; and
- **Crosscutting** - Advance gender equality and engage youth and women in the governance and management of multiple-use water resources and services.



# I.0 DESCRIPTION OF THE DELIVERABLE

The Basin Water Boards Capacity Building Plan (CBP) is one of the MUM contractual deliverables required by the Task Order (TO). The development of the Basin Water Boards (BWBs) capacity building plans is thus one of the priority Tasks under SO4 (Task 4.1, Sub-Task 4.1.1). Activities carried out under this task include.

- a) Identification of capacity gaps of the Rufiji Basin Water Board (RBWB), Lake Nyasa Basin Water Board (LNBWB) and Lake Rukwa Basin Water Board (LRBWB). During the MUM joint annual work planning workshop held in Iringa on 3-5 November 2021, and through consultation with the Basin Water Officers (BWOs) of the three BWBs, it was established that, except Lake Rukwa where the CBP expired in June 2021, all the BWBs had existing and current capacity building and Strategic plans covering various periods as shown in Table I.

**TABLE I EXISTING BWBS CAPACITY BUILDING PLANS**

Basin Water Board	Start Date	End date	Start Date	End Date	Remarks
River Rufiji	July 2021	June 2024	July 2020	June 2025	
Lake Nyasa	Sept 2020	June 2025	July 2019	June 2024	
Lake Rukwa	July 2019	June 2021	July 2019	June 2024	CBP expired in June 2021

To avoid duplication of efforts, MUM reviewed the exiting capacity building and strategic plans to identify and prioritize critical capacity issues to be addressed through MUM’s interventions and beyond. The information gathered from the existing plans was supplemented by MUM’s own field level assessment in February 2022, which identified specific capacity gaps and issues of particular interest to MUM in the three targeted BWBs (details provided in Annexes I-II).

- b) Development of capacity building plans to improve BWBs,’ institutional capacity and operational efficiency to collect revenue, use data to inform decisions, use participatory methods to engage water users, and address the needs of water service providers. Capacity issues identified under sub-task (a) above were processed and validated by MUM in collaboration with BWBs in a stakeholder workshop. The workshop was held on 30-31 March, in Iringa and involved various representatives from USAID, the Ministry of Water (MoW), BWBs, Local Government Authorities (LGAs), the Rural Water Supply and Sanitation Agency (RUWASA), Water Supply and Sanitation Authorities (WSSAs), Community Based Water Supply Organizations (CBWSOs), and Water Users Associations (WUAs) to produce Capacity Building Plans (CBPs) which prioritizes interventions to be supported by MUM throughout its implementation period.

This report presents the CBP for the Lake Nyasa Basin Water Board (LNBWB). Specifically, it provides a detailed assessment of the BWB’s capacity gaps and description of how MUM will work in collaboration with LNBWB and other stakeholders to address them. The report is structured in 3 sections.

**Section 1-**Provides a brief background of the deliverable and structure of the report (this chapter).

**Section 2-** Provides a detailed assessment of the capacity gaps of the LNBWB building on the existing CBP and MUM’s own field level assessment of specific capacity gaps and issues in the basin.

**Section 3-** Presents a tailor-made CBP of LNBWB to address the identified capacity gaps. Specific capacity building activities are described including the approach that MUM will use to deliver, monitor, and evaluate the impact of the proposed interventions.

Findings of MUM’s field level assessment of the capacity gaps in the LNBWB are provided as an annex to this report.

## 2.0 ASSESSMENT OF CAPACITY GAPS

### 2.1 BACKGROUND

#### 2.1.1 THE LAKE NYASA BASIN

Lake Nyasa Basin is one of the nine water basins in Tanzania and is the smallest and wettest basin in the country with an average of 1,500 mm of rain per annum. The Basin is shared between Tanzania, Malawi and Mozambique and covers approximately 165,109 km<sup>2</sup> which includes part of the Lake Nyasa. The lake area within the Basin is about 39,140 km<sup>2</sup>. The Basin has ten Catchments which are Songwe, Kiwira, Mbaka, Lufilyo, Rumakali, Mbawa, Nkiwe, Ruhuhu, Mchuchuma, and Lumbira (Figure 1)

There are four (4) Administrative regions (Songwe, Mbeya, Njombe and Ruvuma), and 14 districts with 19 District Councils in the basin. However not all districts are wholly within the basin. Mbozi, Momba, Njombe, Namtumbo, Songea, Mbinga, Nyasa, Makete and Mbeya rural districts are partially located in the basin while Ludewa, Ileje, Kyela and Rungwe are virtually fully within the basin. The head office of the Basin is located at Tukuyu town, Rungwe District in Mbeya region. Sub offices are located in Songea Municipal Ruvuma region and Njombe town in Njombe (office construction ongoing). The population in the basin is estimated to be 2.2 million inhabitants according to 2012 National population census. Water resources in the basin fall in the following main categories: Domestic Water supplies, Irrigation, Hydropower, Industries, Livestock, Mining, Fishing and Navigation especially in Lake Nyasa.

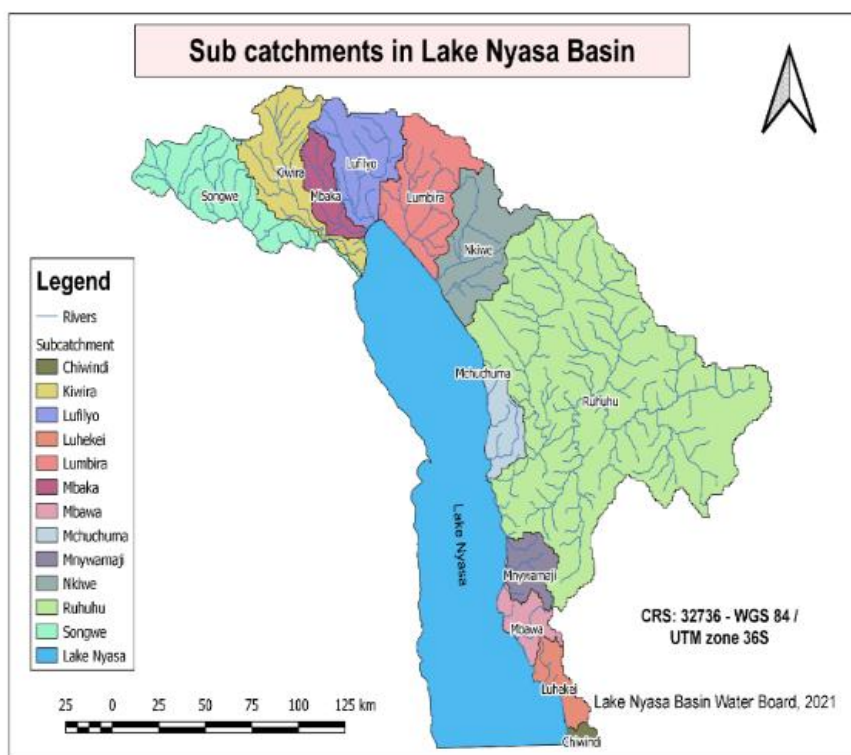


FIGURE 1 LAKE NYASA BASIN WITH THE CATCHMENTS

## 2.1.2 LAKE NYASA BASIN WATER BOARD

The Lake Nyasa BWB is governed by the Board of Directors which is the highest decision-making organ of the BWB. In Tanzania the BWBs are established by the Minister responsible for water for each basin in accordance with the Water Resources Management Act No.11 of 2009. The major roles of the BWBs are stipulated in section 23 of the Act, which can be summarized as: water resources assessment, allocation and water sources protection and pollution control. Specifically, the LNBWB has the following responsibilities and functions:

- (i) Prepare Basin Water Resources Management plans, projects budgets and an implementation strategy
- (ii) Integrate District plans into Basin water resources management plans
- (iii) Provide guidelines and standards for construction and maintenance of water source structures
- (iv) Monitor, evaluate and approve construction and maintenance of water source structures
- (v) Collect, process, and analyze data for water resources management
- (vi) Maintain and update assessments of the availability and potential demand for water resources
- (vii) Approve, issue and revoke water use and discharge permits
- (viii) Maintain a Water Register in accordance with Section 78, of the Act.
- (ix) Monitor and enforce water use and discharge permits and pollution prevention measures
- (x) Resolve intra-Basin conflicts
- (xi) Implement water resources management projects and programmes
- (xii) Co-ordinate the inter-sectoral water resources management at the Basin level and serve as a channel of communication between these sectors and water users in general
- (xiii) Advise the Director on technical aspects of trans-boundary water issues in the Basin
- (xiv) Appointment of Chairman and members of the Catchment and Sub-Catchment Committees and
- (xv) Prepare reports on the state of water resources in the basin

## 2.2 CAPACITY GAPS

### 2.2.1 BASELINE CAPACITY ASSESSMENT METHODOLOGY

Capacities are defined as a set of skills, knowledge and competences, procedures, and arrangements, required to perform specific functions at a satisfactory level<sup>1</sup>. Capacity assessments are therefore conducted to determine the overall capacity of people or organizations to perform their responsibilities. Capacity assessment is defined as a process whereby current capacities are identified and analyzed against future capacities to understand the gaps and formulate a capacity development response to achieve organizational goals.<sup>2</sup>

Generally, organizations conduct capacity assessments to develop a comprehensive view of issues that could be addressed, systematically determine future capacity needs, and assess existing capacity assets.<sup>3</sup> Organizations conduct capacity assessments with the main goal being to improve performance. In this assignment the objectives of the assessment are outlined below:

- to identify capacity strengths and gaps prevalent in the LNBWB
- to generate baseline capacity data and information to guide monitoring and evaluation,

---

<sup>1</sup> For more detail-<https://www.undp.org/content/undp/en/home/ourwork/capacitybuilding/overview>

<sup>2</sup> UNDP Capacity Assessment Practice Note, 2008

<sup>3</sup> UNDP Capacity Assessment Methodology User's Guide: Capacity Development Group 2008

- to determine relative priorities for capacity development and for support to improve operations and performance
- to generate commitment towards addressing gaps and needs
- to draw capacity development plans to guide implementation of capacity development interventions.

Capacity development plans draw from assessment results to formulate and suggest interventions to effectively address existing capacity gaps and create a solid foundation for long term planning, implementation, and sustainable results. They also serve as an opportunity for learning through assessment rather than evaluation and help in measuring change overtime

Overall, the baseline capacity assessment of the LNBWB looked at three (3) key capacity areas and fourteen (14) capacity domains which are aligned with the existing BVWBs performance assessment tools currently in use by the Ministry of Water namely the Performance Assessment Framework (PAF) and Performance Agreement Contract (PAC) between MoW and BWBs. The key capacity areas are stipulated in Table 2 below.

**TABLE 2 CAPACITY ASSESSMENT DOMAINS FOR LNBWB**

Key Capacity Area	Capacity Domain
A: Internal Procedures and Operations	A <sub>1</sub> : Human Resources Management and Development
	A <sub>2</sub> : Leadership
	A <sub>3</sub> : Infrastructure and Technical Equipment
	A <sub>4</sub> : Organizational procedures
B: Stakeholder Engagement and Relations	B <sub>1</sub> : Functioning of the Executive Board
	B <sub>2</sub> : Coordination with other Government Institutions
	B <sub>3</sub> : Community Involvement
	B <sub>4</sub> : Gender integration and youth inclusion
	B <sub>5</sub> : Customer services
	B <sub>6</sub> : Communication with stakeholders
C: Effectiveness in Water Resources Management Functions	C <sub>1</sub> : Monitoring and Data analysis
	C <sub>2</sub> : Billing, fee collection and permits
	C <sub>3</sub> : Resource Mobilization
	C <sub>4</sub> : Basin Catchmen and Conservation Plan
	C <sub>5</sub> : Implementation of climate sensitive areas of the IWRM&D Plan

The following approach was used to identify capacity gaps and prioritize capacity building interventions of the LNBWB.

First, a self-assessment checklist (see Annex I for details) with questions designed to measure capacity for each domain in the three key capacity areas was prepared and administered to a purposefully sampled assessment team composed of between 12-15 people with representation from different stakeholder groups and basin staff. Through the facilitation of independent consultants, assessment teams (focus groups), discussed reasons for scoring each before reaching a consensus score for existing capacities for each capacity question. The following ranking scheme was applied: 1- Very low capacity or none, 2- Low capacity, 3- Moderate capacity with less than 50% achievement 4- High capacity, 75% achievement and 5- Full capacity, above 75% achievement. It is important to note that self-assessment was chosen as a primary tool for data collection because it allows for greater ownership and understanding of the process of capacity development, stimulates dialogue regarding the capacities required and captures current and targeted capacity levels<sup>4</sup>

Secondly, a rapid capacity assessment and planning tool was used to support the self-assessment tool to collect qualitative data. This tool was administered to focus groups of between 8-10 people comprised of basin experts alone. Through the facilitation of consultants, the same capacity questions were asked to basin staff who were subjected to a rigorous process of determining desired and existing capacities, capacity gaps and actions to address the gaps. Assessment teams also determined progress indicators, organizations to be responsible for the action, priority, and time frame.

Thirdly, consultations with the Director of Water Resources were used to get insights on capacity gaps and actions to address capacity development challenges. The process of assessing capacity gaps using the various tools and approaches described above culminated with preparation of a capacity baseline table.

It is important to note that during the assessment, the Desired Capacity (DC) score was set at five (5) based on the scoring scheme of 1-5 for each capacity area in all domains. This score was deemed an ideal level for BWBs to be able to effectively function, execute their mandates and achieve optimal level of performance as well as to match with targets set in their strategic plans. It is also important to note that desired capacities do not emerge from capacity assessment but are defined before assessment is conducted. Questions were posed to participants through focus groups and used questions and discussions to obtain group consensus on a score. The assessment teams arrived at the scores in a participatory manner and reasons for each ranking were recorded. To reduce subjectivity in ranking, assessment teams (Focus Groups) were applied over individual interviews. Average scores for Existing Capacities (EC) were calculated for each capacity area and domain and this initiated a process of determining Capacity Gaps (CG) by finding the difference between the desired and existing capacities determined by assessment teams. Box I below summarizes definitions of key terms used during the assessment.

---

<sup>4</sup> United Nations Development Group (UNDAF), Companion Guidance 2017

## BOX 1: KEY TERMS

### DESIRED CAPACITY

Desired Capacity (DC) is the preferred performance level of BWBs for any capacity area in achieving its objectives. Desired capacities are the desired or standard capacities required to implement its mandates. Capacity assessments help to analyze what is desired and what exists to help determine measures to address the gap. Determination of the level of desired capacity was done by the assessment team composed of the basin staff who are the primary client and other relevant stakeholders.

### EXISTING CAPACITY

Existing Capacity (EC) describes the prevailing level of performance of an institution. It explains current practices, systems, and structures. Existing capacities are usually identified through engagement with key stakeholders in focus group to determine capacity gaps and priority areas that require improvements.

### CAPACITY GAP

A Capacity Gap (CG) is defined as a significant disparity between organizations goals and objectives and its actual potential ability to achieve its vision and mission<sup>1</sup>. Capacity gaps can be found in one or multiple areas of the organization such as on organizational policies, the Board, staffing, leadership, financial management, equipment, or fund raising. In this task, capacity gaps are determined as the difference between desired capacity (DC) and existing capacity (EC) for each capacity question in all domains.

To determine priority areas for capacity development, the assessment team developed a priority index by first and foremost categorizing existing capacity gap scores into three levels namely *Low*, *Medium*, and *High* based on a scale of 1-5 and supported by qualitative evidence. The objective was to determine levels of priority as shown in Table 3 below.

**TABLE 3 CATEGORIZATION OF EXISTING CAPACITY GAP**

Existing capacity scale levels	Less than 2.00	2.00 to 3.00	More than 3.00
Interpretation (levels of priority)	Low	Medium	High

Having categorized the existing capacity scale levels and their interpretation (low, medium, and high) the priority index (PI) was then computed as a ratio of Capacity Gap (CG) and desired capacity (DC) and presented as a percentage (Equation 1). The team determined the PI for each capacity area and domain as well as overall averages for the three key capacity areas. Using this categorization, the higher the existing capacity gap score, the higher the PI percentage of a particular capacity area or domain and hence the higher the priority for capacity development.

**Equation 1:  $PI = CG/DC * 100\%$**

Finally, three priority index scale levels were established to categorize priority index results as shown in Table 4 below.

**TABLE 4 CATEGORIZATION OF PRIORITY INDEX**

Priority index scale levels	Less than 40%	40%–60%	More than 60%
Priority levels	Low	Medium	High

In this report existing capacity gap scores (CGS) and priority index (PI) are used for analysis in the subsequent sections and to assist in the prioritization of actions for capacity development (see Annex II for details). Using this prioritization index, it is observed that the higher the PI the lower the existing capacity of the board in a particular domain or capacity area and the lower the PI the higher the existing capacity.

## 2.2.2 BASELINE CAPACITY ASSESSMENT FINDINGS

Overall, the findings from the baseline capacity assessment of Lake Nyasa Basin Water Board LNBWB shows that on average the basin has the highest capacity gap score of 2.75 than Rufiji BVB (1.95) and Lake Rukwa BVB (2.34), implying that although LNBWB has moderate capacity, comparatively it is the least capacitated basin than Lake Rukwa and Rufiji Basins. Below is a summary of baseline capacity assessment findings in all capacity areas and domains for LNBWB.

### 2.2.2.1 Internal Procedures and Operations

Table 5 below shows that internal procedures and operations have high capacity due to low-capacity gap score of 1.96. However, the operational efficiency of the LNBWB is hampered by a lack of adequate staff. For example, data shows that the total number of staff required at LNBWB is 124 but currently the basin has 65 staffs indicating 48% as the staffing gap.

Lack of adequate number of staff is a huge constraint facing the water resources subsector. For example, a recent concluded WSDP II evaluation shows that during the WSDP II (2016/17-2020/21)<sup>5</sup> it was anticipated that 1,000 staff from a variety of technical disciplines would be recruited during the program's cycle for deployment to the MoW's Directorate of Water Resources (DWR): water quality laboratories, and BWBs. However, only 98 staff in various positions were recruited, implying that only 9.8 percent of the target was met—further highlighting the acute shortage of staff to fully implement the program's WRM component. This underperformance in staff recruitment against the target derailed the implementation of the program—particularly limiting MoW's DWR, water quality laboratories and the BWBs' ability to offer consistent extension services and capacity-building support to community-level WUAs and perform routine duties in ensuring sustainable WRM in the country. It is important to note that the shortage of staff in the entire water sector was also highlighted by the Minister of Water in the 2021–2022 budget speech where he insisted that a total of 1,547 new staff will need to be recruited to fill the gap<sup>6</sup>.

**TABLE 5 CAPACITY GAPS- INTERNAL PROCEDURES AND OPERATIONS**

Capacity area	Domain	Capacity gap score	Existing Capacity description	Priority index (PI)	Priority level
Internal Procedure & operations	Human resources management and development	2.67	Moderate capacity	53%	Medium
	Leadership	1.50	High capacity	30%	Low
	Infrastructure and Technical Equipment	2.33	Moderate capacity	47%	Medium
	Organizational procedures	1.33	High capacity	26.6%	Low

<sup>5</sup> Final evaluation report: Government of Tanzania Water Sector Development Program phase 2 final evaluation December 2021

<sup>6</sup> Ministry of Water, 2021. Minister's Budget Speech 2021–2022.



	<b>Average</b>	<b>1.96</b>	<b>High capacity</b>	<b>39.3%</b>	<b>Low</b>
--	----------------	-------------	----------------------	--------------	------------

#### *Human Resources Management and Development:*

During the assessment, the LNBWB indicated that priority staff required at the BWB include Lawyer (1) Hydrogeologist (2) Hydrologist (2) Civil Engineer (1), Community Development Officer-CDO (2) and Water Resources Engineer (1). Hiring new staff to key positions identified in the strategic plan remains a top priority and the BWB should continuously engage the Ministry of Water on this agenda. Other strategies must be explored including maximum utilization of existing staff should be considered including multi-tasking, accepting graduate interns and part-time staff for specific tasks. In the spirit of promoting multisectoral collaboration and leveraging resources, outsourcing some of the work and working in collaboration with other key stakeholders including RUWASA, WSSSAs, and LGAs in areas where they have competence and resources should be explored. For example ensuring that activities such water sources protection and pollution control, demarcation of water sources, tree planting and land use planning are included in LGA or RUWASA annual work plans would make a great difference just like ensuring Community based water supply organizations (CBWSOs) under RUWASA effectively implement activities related to sustainable management and use of water resources such as protection of water sources, tree planting, promoting good land use practices and efficient use of water.

#### *Infrastructure and Technical Equipment*

It is noted that LNBWB had moderate capacity on infrastructures and equipment with a capacity gap score of 2.33. This score is due to the construction of new offices at the head office in Tukuyu and suboffices in Njombe and Songea which are nearing completion which ensures sufficient office space. Refurbishing of office buildings in Tukuyu to cope with weather conditions is also planned. Assessments also showed that the basin has sufficient and functional office equipment such as computers, printers, and software. Additional 4 computers and 4 printers will be required in the immediate future for fieldwork purposes and replacement. As for vehicles, the board has 3 functional vehicles and 4 that need major repairs or replacement in the next five years

On the other hand, good performance in construction of offices has masked more serious challenges including lack of hydrological equipment, hydrometric and hydro meteorological stations which threaten implementation of its activities. LNBWB has no modern flow measurement equipment such as Qliners and was compelled to borrow from Rufiji Basin. The board now requires five (5) Qliners, five (5) river ADCPs and one (1) current meter to effectively implement its WRM functions. In the meantime, the board has one (1) current meter but has neither Qliners nor ADCPs.

Table 6 below shows the status of water resources monitoring network in Lake Nyasa Basin compared to Lake Rukwa and Rufiji Basins with significant gaps observed on groundwater monitoring stations.

**TABLE 6 WATER RESOURCES MONITORING NETWORK STATUS FOR 2021**

<b>Basins</b>	<b>River gauging</b>	<b>Rainfall (Automatic)</b>	<b>Rainfall (Manual)</b>	<b>Weather</b>	<b>Ground water</b>	<b>Lakes</b>	<b>Dams</b>	<b>Total</b>
<b>LNBWB</b>	28	4	10	5	0	3	0	<b>50</b>
<b>LRBWB</b>	23	2	9	6	0	2	0	<b>42</b>
<b>RBWB</b>	58	7	7	39	27	0	3	<b>137</b>

Source: Water Sector Status Report (2014–2020) and MoW.



The basin also has one (1) old Terameter and one (1) Magnetometer. Two (2) terameters are damaged and can no longer function. The board now requires two (2) Terameters, One (1) Magnetometer and five (5) ground water monitoring stations. Moreover, the capacity for water quality monitoring equipment and stations was also found to be low. Issues identified include expired reagents and inadequate calibration of water quality monitoring equipment

Making available equipment and resources for effective implementation of surface and ground water activities is critical in achieving water resources management objectives as it is a core function for BWBs. This will also contribute to WSDP area of focus for strengthening WRM monitoring, assessment, enforcement, and compliance.

### 2.2.2.2 Stakeholder Engagement and Relations

Capacity gap scores in stakeholder engagement and relations were found to be predominantly high across all domains with an average of 3.25 as can be seen in Table 7 below which denotes low capacities across all domains. However, poor customer service has a highest capacity gap score (3.68) implying that it is a huge limiting factor of the BWB in managing stakeholder relations.

**TABLE 7 CAPACITY GAPS- STAKEHOLDER ENGAGEMENT AND RELATIONS**

Capacity area	Domain	Capacity gap score/	Capacity Description	Priority index (PI)	Priority level
B. STAKEHOLDER ENGAGEMENT AND RELATIONS	B1. Functioning of the executive board	3.00	Moderate	60%	Medium
	B2. Coordination with other Government Institutions,	3.14	Low	63.8%	High
	B3. Community involvement	3.20	Low	64%	High
	B4. Gender Integration and Youth Inclusion	3.40	Low	68%	High
	B5. Customer services	3.68	Low	73%	High
	B6. Communication with stakeholders	3.00	Low	60%	Medium
	<b>AVERAGE</b>		<b>3.24</b>	<b>Low</b>	<b>65%</b>

### *Functioning of the Executive Board*

Assessments show that the capacity of the Executive Board to function effectively is low to moderate with a capacity gap score of 3.00 due to the inability to hold its quarterly meetings as required by law due to lack of financial resources. For instance, it was reported that the outgoing BWB (2018/2019-2020/2021) held only two (2) meetings out of the required 12 in three years of office tenure. The two meetings conducted were made possible through the support of the Ministry of Water. This situation has rendered the board unable to provide direction and support, monitor performance, manage governance processes, and ensure accountability. A sustainable solution for improving basin performance lies in its capacity to generate more revenue from diverse sources. This requires a fund-raising strategy that includes enhancing coverage of permits by ensuring those using the resources illegally are reached, introduction of self-reading meters and introduction of electronic payment systems and enhancing enforcement<sup>7</sup>. For this to work it must be supported by an enabling policy environment that provides autonomy for organizational and financing operations

Basin Water offices still depend on the ministry for staff, financing, and critical operational support<sup>8</sup> and as observed elsewhere in this report this arrangement is the underlying factor for low capacity in most of the domains. To facilitate progress in BWB performance, granting administrative and financial autonomy as envisaged in the implementation of the Water Sector Development Program (WSDP) must be enhanced. The basin water boards need to have the capacity to determine policies, procedures and strategies that are relevant to their context and capable of timely decision making and implementation.

Progress has been made towards equitable representation in the Basin Water Board. Assessments show that the fifth Board (2018/2019- 2020/2021) had six women out of 11 members thus exceeding the 30% threshold required by law. This appears to have promoted gender representation and equality in decision making. It is not clear however if women contributed effectively in setting ground for improved performance of the board in the future given the fact that only two board meetings out of twelve were conducted due to lack of resources.

### *Coordination with other government institutions*

The assessment shows that the existing capacity of the LNBWB to coordinate with other government institutions is low with a capacity gap score of 3.14. Assessments show that activities of stakeholders such as LGAs, RUWASA, CBWSOs and WSSAs are not closely followed-up. The BWB is not adequately aware of the strategies and work of other organizations due to limited consultation when planning and implementation of its activities. The board has mostly relied on information contained in IWRMD plans to do the planning. The basin forum in which a limited number of LGAs and other stakeholders participate is as well not an adequate forum to review IWRMD plans and coordinate with other government institutions. Different formal mechanisms including formal stakeholder meetings must be considered. Low coordination with other key stakeholders threatens government desire to promote effective collaboration and coordination of stakeholders given that WRM is a multi-sectoral activity.

The assessment noted that the implementation of the Basin IWRMD plan is not effectively communicated to LGAs for several factors. Only one LGAs is represented in the Basin Water Board meetings- as required by the law- and there are no guarantees that reports or information from

---

<sup>7</sup> MoWI, COWI. Water Resources Management Financing Options: An assessment of Financing Options and Pricing Strategies. Final Draft, 2017

<sup>8</sup> USAID TANZANIA WATER SECTOR ASSESSMENT FOR STRATEGY DEVELOPMENT  
February 2020

these meetings are relayed to the remaining LGAs. LGAs participate in Basin forums which are supposed to happen twice a year; however, these forums do not take place as planned due to financial limitations. Similarly, catchment forums in which LGAs are represented have not been formed thus denying the basin the opportunity to communicate implementation of its plans. This situation limits communication with LGAs and their participation in implementation and evaluation of IWRMD plans. Despite the commitment of the BWB to ensure partners and key stakeholders support implementation of the IWRMD plan, it is hampered by inadequate financial and human resources and sharing of information essential for result-oriented stakeholder engagement

Through the support of GIZ, the board has prepared a Communication Strategy which underscores the need to improve information flow with LGAs, Regional and District RUWASA managers through provision of information and data and participation in Regional and District consultative meetings. Some measures are being taken to raise awareness and engage stakeholders in the implementation of the IWRMD plan including the preparation and publication of an IWRMD plan in a simple language, participation in various national events such as the Maji week, Nanenane and Environment week and implementation of radio program.

To ensure effective information flow to targeted groups including government agencies, public and private sector institutions and other stakeholders in the catchment, deliberate steps must be taken to ensure key communication messages in the strategy are relevant and backed by precise background information packages to back up the messages and ensure uniformity in the delivery process for anyone using the strategy. Secondly, communication issues should be managed by a person with the right qualification and competence in communication. Where it is difficult to recruit one, tailored or specialized courses should be considered for those or the unit responsible for communication. Any communication event to a targeted audience must be planned, having clear objectives and expected results to be able to measure change. Most importantly, progress in communication and stakeholder engagement will largely depend on availability of funds which must be mobilized and allocated to this important function.

Capacity assessment revealed that the capacity of Catchment /District facilitation teams to support WUA is very low for various reasons. Teams formed before in some districts do not exist for reasons including promotions to other positions, retirement, transfers or are simply not functional. Some LGAs don't have catchment teams altogether. To start with, District /Catchment Facilitation teams must be formed and capacitated in Makete and Ludewa districts.

Basin Water Boards have low capacity to establish, support, organize and coordinate Basin and Catchment Multi-sectoral forums. Three Catchment multi-stakeholder forums took place through the support of GIZ while Basin multisectoral forum was support by Ministry of Water. Currently no catchment committees are in place, and they are planned to be formed in four catchments namely Ruhuhu, Songwe, Mbawa, and Nkiwe. Conducting multi-stakeholder forums will depend on availability of funds.

The assessments show that, there has been very low increase in the representation of women in the basin fora as shown in Table 8 below. The involvement of youth has not been prioritized in the management and development of water resources and they are simply assumed to be part of the larger group of men and women. At the level of the catchment/sub catchment fora, representation from the various water user groups, WUA, LGAs and other institutions is generalized and is silent on gender representation. Raising awareness and training BWBs and key stakeholders such as LGAs on a gendered approach that enhance women and youth representation in such fora will not only enhance understanding of women and youth concerns and priorities on water management but also contribute to sustainable water resources management.

**TABLE 8 REPRESENTATION OF MEN AND WOMEN IN BASIN FORUMS**

No.	Forum/Year	No. Women	No. Men	Total
1	1 <sup>st</sup> Forum 12 April .2019	3	28	31
2	2 <sup>nd</sup> Forum 18 March 2021	7	19	26
3	3 <sup>rd</sup> Forum 15 Dec 2021	8	39	47

Source: LRBWB Baseline capacity assessment, February 2022

The BWB encounter difficulties in inviting women beyond following the prevailing WRM Act. This is due to low number of women employed and holding senior positions in stakeholder's organizations. Water Resources Management Regulations (CAP 331)<sup>9</sup> specify representation of women and men from different stakeholder groups as shown in Table 8 above. As a matter of principle, attendance to BMSF and CMSF is open. Therefore, it should be possible to invite as many women as possible for general forum meetings. However, the regulations provide for certain types of representation specifically for forum meetings involved in proposing names to be nominated as BWB members. Given the current representation and attendance patterns it will be difficult to achieve equitable gender representation because representation of key Water related sectors and Water Supply utilities are not bound by the requirement of equal men and women into basin forums. The envisaged transition of BWBs to autonomous bodies may be an opportunity to review policies and regulations on gender representation that reflect basin context information, experiences, problems and priorities of men and men essential for gender mainstreaming<sup>10</sup> Preconditions on gender representation may have to be considered for all stakeholders participating in basin water forums.

### *Community Involvement*

The assessment on community involvement revealed a high-capacity gap score of about 3.20. Low performance in this area is attributed to low financial capacity to strengthen Water User Associations (WUAs), establish, and strengthen catchment/sub catchment water committees and their inability to implement WRM roles. WUAs are the institutions and vehicles through which communities participate in water resources management and governance. It is important that BWB supports the WUAs to ensure they are capable of performing their responsibilities including preparing water use plans, collection of water user fees, conservation and protection of water sources, managing allocation of water resources at local level, managing equitable allocation of water resources during drought and mediating in local water use disputes.<sup>11</sup> WUAs are also capable of other tasks including ensuring efficient and effective use of water resources, raising awareness and training community members, monitoring water availability, taking daily records at hydrological and climatic stations, making simple water quality measurements, initiating projects to diversify community livelihoods, operating savings and loan schemes and improving crop and livestock productivity<sup>12</sup>. Currently, WUAs are unable to perform statutory functions and implement work plans due to low BWB capacity to strengthen them. Assessment findings in this domain are as described below:

The basin has so far formed eight (8) WUAs, however only two (2) have been capacitated due to lack of financial resources.

<sup>9</sup> Water Resources Management Act (cap 331) Regulations 2010 and Amendment Regulations 2020

<sup>10</sup> GIZ 2016 Limpopo River Awareness Kit, Transboundary Water Resources Management in SADC [www.riverawarenesskit.org](http://www.riverawarenesskit.org)

<sup>11</sup> URT, MoW. Draft Guidelines for formation of Water User Association 2019 and WSDP II Project Implementation Manual 2015

<sup>12</sup> WREM International 2013: Rufiji IWRMDP, Draft Final Report. Vol 3: Stakeholder Participation, Capacity Building and Communication Plan, Report Prepared for the united Republic of Tanzania, Ministry of Water, By WREM International Inc, Atlanta, Georgia USA 139 pp

- The basin has ten (10) catchments but with no catchment committees. The committees are planned to be formed and capacitated to be able to perform their water resources management functions. The formation of catchment committees has lagged behind due to lack of financial resources. Catchment/sub catchment committees earmarked to be formed in Makete and Ludewa Districts are (1) Ruhuhu Catchment Committee (Ludewa) and (2) Nkiwe Catchment Committee (Ludewa). Sub catchment Committees are Katewaka Sub catchment (Ludewa), Mchuchuma Sub catchment (Ludewa), Lumbira catchment (Makete) and Rumakali sub catchment (Makete)
- The BWB communicates with WUAs through a WhatsApp group and quarterly reports from WUAs. Communication with WUAs as key water management institution at local level need to be strengthened by ensuring field visits and meetings with WUA leaders are held to get feedback on WUA performance of its activities and challenges faced and provide encouragement.
- According to WUA formation and operational guidelines (MoW 2019) the WUA Executive Committee will be comprised of 6 leaders namely chairperson, deputy chairperson, secretary, treasurer and 2 members representing key WUA committees formed according to most important water related risks. This clause does not specify the number of women to be part of this committee. However, it is clearly stated that one third of a seven-member committee for all the five subcommittees shall be women and youth. It is pertinent for the BWB to clearly state how representation of women and youth to this day-to-day decision-making body will be ensured.

#### *Gender Integration and Youth Engagement*

The central concern in water and sanitation is on ensuing participation of both men and women to improve performance. The National Water Policy (NAWAPO)<sup>13</sup> unconditionally states that gender implications shall be examined and considered at all stages of management of water resources. This is based on the understanding that failure to use gender analysis threatens promotion of gender integration which is essential in addressing gender differences and achieving equality between men and women and planning how best to address different needs of women, men, and youth.

The assessment shows that the existing capacity of the board in implementing aspects related to gender integration and youth engagement is low with a capacity gap score of 3.40. The high-capacity gap is caused by the lack of gender analysis and its results in developing policies, procedures and in operational planning that takes into consideration the concerns of men, women, and youth. This has impact on equitable representation and participation of both men and women in decision making processes. Assessment findings in this domain are as follows:

- LNBWB does not perform gender analysis in the preparation of policies, guidelines, and implementation of its activities and consequently equality among men, women and youth cannot be met because their gender disparities and necessities specifically of women are not considered in planning and implementation of activities. Gender analysis is essential for planning without which gender integration cannot be achieved <sup>14</sup>
- Based on the prevailing laws and guidelines, there are provisions for ensuring one third of WUA management committee members and BWB members are women. As far as Lake Nyasa Basin management is concerned, 45% of senior management are women which shows progress

<sup>13</sup> URT, Ministry of Water and Livestock Development 2002. 25

<sup>14</sup> USAID 2010: Guide to Gender Integration and Analysis. Additional Help for ADS Chapters 201 and 203

towards gender parity. While this shows progress, it is not by design because there is no local gender policy and gender is not integrated in management and local operational planning of its activities

- Although Lake Nyasa BWB is generally gender conscious, there is no policy to guide its activities. Sex disaggregated data and information is not a requirement in planning and reporting BWB activities. This implies that planning and implementation of activities does not effectively take into consideration the different roles of men and women, access to and control over resources and participation in decision making processes
- The BWB capacity of promoting gender representation into Basin Multi-sectoral forums and Catchment multi-sectoral forum is still low because invitations do not take gender and youth into consideration.

To strengthen gender integration and youth engagement in sustainable water resources management, planning and implementation of basin activities, it is essential to build capacity of basin managers, staff and other key actors in LGAs, RUWASA, UWSSA in a wider range of gender aspects including gender analysis and gender integration in order to address inequalities in water resources management and water supply and sanitation. Building capacity in gender analysis and planning is particularly important to address problems related to the assumption that gender inequalities will be addressed in the overall programming and to promote institutional support for the use of gender concepts such as sex disaggregated data in the day-to-day activities of the organization.

#### *Customer Service*

Capacity assessments show that customer services are the domain with the highest existing capacity gap score of 3.68. The LNBWB does not have a customer service charter which significantly contributes to the low achievement of its goals. A customer charter outlines how an organization promises to work with its customers and provides insights on how the organization operates, the rules by which it interacts with its customers including policies and procedures. Lack of customer service charter has limited the BWB capacity to communicate its business goals, define proper channels of communication, abide to established customer service standards or getting feedback from customers. Lack of customer service charter has contributed to lowering badly needed revenues. Coupled with a lack of clear strategy to identify unregistered water users and incapacity to enforce various sanctions, capacity to collect badly needed revenue has been hard. An innovative approach has been introduced for using an “M-water tool” to collect and analyze various data including data for customers. However, development of a customer charter remains a pre-requisite if the BWB must acquire a competitive edge and instill confidence of its various customers to pay various water use fees.

#### *Communication with Stakeholders*

Assessment in this important area shows that the existing capacity to communicate with stakeholders is low with a score of 3.00. Communication is essential in engaging stakeholders particularly those managing local action plans such as LGA, WSSAs, big water users and other government agencies. Getting to know the stakeholders, to understand what they want, when they want, how engaged they are and how the BWB plans and actions will affect their goals is important. Putting in place mechanisms for sustained communication and collaboration with key stakeholders in the basin is a necessity and should go beyond ensuring participation of stakeholders in BWB meetings and forums. The board has prepared a communication strategy to ensure various stakeholders are reached, however its implementation is constrained by lack of resources which demands that efforts to raise basin revenue are intensified.

Assessment findings in this domain are described below:

- LNBWB has developed a communication strategy that targets different audiences and their information needs. Development of the first Communication strategy (2015-2018) was supported by GIZ and an update for the period 2018-21. The current strategy (2021-2024) was updated in June 2021. Key messages in the current strategy must be supported by background information to ensure whoever is involved in the communication process delivers the same content. Building capacity in communication skills and public speaking skills must be considered
- Although the board has internal technical and human resources capacity to conduct awareness raising about the importance of WRM to the public, this is not effectively done due to lack of financial resources.
- There is no regular communication with LGAs and big water users on the status of water resources and plans for water resources protection and pollution control. However, there are isolated cases of cooperation with LGAs on water sources protection such as in Njombe District.
- The basin has been using dissemination events like Maji week and NaneNane to inform the public on the responsibilities of the BWB. These should continue and other relevant dissemination events explored. Future participation in such events should clearly state objectives, messages, target audiences and the expected outcomes including how many people have been reached
- To reach a broad public audience, the basin has conducted radio and TV programs and documentaries. These, however, are not done regularly due to lack of financial resources which curtails reinforcement of messages.

### 2.2.2.3 Effectiveness in Water Resources Management Functions

Effectiveness in water resources management functions also showed a high-capacity gap score of 3.24 implying moderate to low capacity in this area (see Table 9 below). Lack of capacity in resource mobilization is singled out as a highest capacity gap of the LNBWB- negatively affecting the basin's ability to effectively execute its water resources management functions.

**TABLE 9 CAPACITY GAPS- WATER RESOURCES MANAGEMENT FUNCTIONS**

Capacity area	Domain	Capacity gap score	Capacity Description	PI	Priority level
<b>C. Effectiveness in water resources management functions</b>	C 1. Monitoring and Data Analysis	2.78	Moderate	55.6%	Medium
	C2. Billing, fee collection and permits	2.40	Moderate	48%	Medium
	C3. Resources mobilization	4.00	Low	80%	High

	C4. Basin Catchment Conservation Plan	3.33	Low	66.6%	High
	C5. Implementation of climate sensitive areas of the IWRM&D Plan	3.67	Low	73.4%	High
	<b>AVERAGE</b>	<b>3.24</b>	<b>Low</b>	<b>64.8%</b>	<b>High</b>

### Monitoring and data analysis

Capacity gap in monitoring and data analysis is caused by low capacity to establish and update rating curves to conduct river water flow monitoring, lack of ground water monitoring system, lack of an M&E system that routinely collects and reports disaggregated data, and inability to properly carry out data storage, processing, analysis, and modeling including the application of Lake Nyasa Decision Support System (LNDSS). It was mentioned that rating curves for only seven (7) out of 28 river gauging stations have been updated.

### Resource Mobilization

The LNBWB has a very low capacity for resource mobilization. For example, in 2020/21 financial data from the LNBWB shows that the basin had an estimated budget of TZS 1.3 billion but as indicated in Table 10 below, the actual revenues collected by the board from user fees, permits application and other charges only contributed to 13% of the required budget expenditure, indicating that the basin has limited capacity to fund at least 30% of its planned activities. This situation is attributed to lack of fund-raising strategy and plan that define methods and mechanisms for fund raising. Moreover, the board does not have a unit or persons with skills and experience for fund raising.

**TABLE 10 SOURCES OF LNBWB REVENUE**

Budget Component	Category	FY 2019/20			FY 2020/21		
		Estimates (TZS)	Actuals (TZS)	%(+/-)	Estimates (TZS)	Actuals (TZS)	%
Revenue estimates	Water user fees	252,895,198	96,337,401.28	38%	226,329,243.35	94,338,039.90	42%
	Water Permits: Application fees/permit, drilling, discharge	6,350,000.00	16,390,000	258%	5,710,000.00	11,804,998.70	207%
	Hydrogeological survey/Ground water survey	6,000,000.00	15,290,000.00	255%	6,000,000.00	17,062,800.00	284%
	Data processing	1,500,000.00	4,755,785.96	317%	4,150,000.00	6,930,000.00	167%
	Debt collection/Recover	143,921,071.21	65,094,377.20	45%	71,926,756.65	24,939,541.40	35%
	Other Income/Other fees (Fines &Penalties, Surveys, Data selling .etc	13,634,000.00	6,896,870.24	51%	5,884,000.00	7,483,643.00	127%
	Environmental assessment	-	0.00	0%	0.00	-	0%
	GOT other charges /donors contributions	0.00	1,556,000.00	0%	0.00	14,430,000.00	0%
	Groundwater survey and other sources						0%
	<b>Sub-Total</b>	<b>424,300,269.56</b>	<b>206,320,434.68</b>	<b>49%</b>	<b>320,000,000.00</b>	<b>176,989,023.00</b>	<b>55%</b>
Development Budget	National Water Fund (NWF)	600,000,000.00	528,380,000.00	88%	150,000,000.00	100,000,000.00	67%
	Basket/MoV	0	0.00	0%	0.00	0.00	0%
	Water Sector Support Project (WSSP II)	900,000,000.00	618,105,089	69%	863,422,487.19	811,478,580.62	94%
	<b>Sub-Total</b>	<b>1,500,000,000.00</b>	<b>1,146,485,088.98</b>	<b>76%</b>	<b>1,013,422,487</b>	<b>911,478,580.6</b>	<b>90%</b>
<b>TOTAL</b>	<b>1,924,300,269.56</b>	<b>1,352,805,523.66</b>	<b>70%</b>	<b>1,333,422,487.19</b>	<b>1,088,467,603.62</b>	<b>82%</b>	

Source: Lake Nyasa Basin Water Board Financial Statement

Assessment findings also showed that.

- The board has taken some measures to enhance resource mobilization including establishment of thematic groups to facilitate collection of various fees and identification of potential customers and their registration. This has helped raise the contribution of application fees to basin income as observed before.



- The basin has made attempts to write proposals and submitted them to development partners and the National Water Fund (NWF). Development of proposals was supported by GIZ which enabled the holding of basin water forums. Building capacity on proposal development must be prioritized
- To be able to raise its revenue base, development of a fund-raising strategy is a primary requirement. There is an urgent need to put in place a strategy and plan that use different methods to mobilize resources in a concerted manner. For this to be effective an enabling policy environment must also prevail that provides administrative and financial autonomy of the board.
- Currently the board does not have staff with qualifications and experience in resources mobilization. Building staff capacity on resource mobilization will be required as well as establishing and strengthening a unit whose primary responsibility is resource mobilization

#### *Basin Catchment Conservation Plan*

This domain has an average capacity gap with a score of 3.33 with the highest gap in its low ability to implement the catchment conservation plan (2020-2035) followed by low ability to survey, demarcate, and gazette areas identified for protection and low ability to develop and regularly update the plan for protection of all relevant water sources in the basin. Currently only 9 water sources have been demarcated in the basin and they have to be gazetted. About 33 water sources have been identified but lack of resources has hampered efforts to carry out surveys and demarcate them. Low performance in this area is largely attributed to BWB failure to collaborate and engage other stakeholders in plan implementation. It is impossible for the BWB in the immediate and longer term to acquire all the resources needed to implement the plan.

While mobilization of resources remains to be a primary goal to acquire resources to implement planned interventions, promoting multi-sectoral approach is a primary approach because sustainable management and development of water resources is every one's business in the catchment or basin. BWB must proactively engage other stakeholders such as RUWASA, LGAs, WWSA, COWSOs, big water users and other actors in the public and private sector to accommodate recommended actions in their plans and implement them in their areas of jurisdiction.

#### *Implementation of climate sensitive areas of the IWRM&D plan*

The rapid rate of climatic change which affects water resources availability and water users is evident in the basin and requires the Board to design and implement adaptation measures<sup>15</sup>. The most important direct impact of climate change to hydrological conditions is the increase of temperature which will lead to reduction of surface run-off close to 11%<sup>16</sup>. However, assessment shows that the basin has a very low existing capacity for implementing interventions in climate sensitive areas of the IWRMD plan. The existing capacity gaps are in low ability to identify stakeholders and gender differentiated challenges, building capacity for adaptation to climate change impacts and low capacity to coordinate and collaborate with other stakeholders to implement activities for adaptation to climate change related to water resources.

Attempts to address effects of climate change require coordinated action and collaboration with other stakeholders. The BWB must consider developing a joint strategy and action plan with key stakeholders such as LGAs, WWSAs, NGOs, big water users for implementation of climate change mitigation and adaptation activities such as land use planning, tree planting, establishing income generating activities, water harvesting and water storage in communities, building reservoirs, wells and boreholes and establishment of community-based water management plans. Enhancing knowledge and competence of BWB staff and LGAs in planning and implementation of disaster risk reduction responses through capacity building measures is essential.

---

<sup>15</sup> LNNWB 2019 STRATEGIC PLAN FOR 2019/2020 - 2023/2024

<sup>16</sup> SMEC, 2015. IWRMD Plan for Songwe Catchment, Preparation of IWRMDPlan for Lake Nyasa Basin (Final report)

## 3.0 CAPACITY BUILDING PLAN

### 3.1 PRIORITY AREAS FOR CAPACITY BUILDING

The baseline capacity assessments have identified capacity gaps and strengths in the LNBWB (see section 2 above). Overall, the assessments have shown that the LNBWB has medium capacity performance with an average capacity gap score of 2.73. However, looking at key capacity areas individually, capacity issues become increasingly noticeable. As shown in Table 11 below, Stakeholder Engagement and Relations and Effectiveness in water resources management have high-capacity gap scores, because of high-capacity gap scores in their respective domains. These findings suggest that capacity development interventions in LNBWB should prioritize these areas. On the other hand, although assessments have shown that the board has high capacity in Internal Procedures and Operations, there are still critical issues in some of the domains that require immediate action particularly addressing shortage of equipment and staffing gaps.

**TABLE 11 SUMMARY OF CAPACITY GAP SCORES**

Capacity area	Capacity gap score	Priority Index	Priority level
Internal Procedures and Operations	1.92	38%	Low
Stakeholder Engagement and Relations	<b>3.25</b>	<b>65%</b>	<b>High</b>
Effectiveness in Water Resources Management functions	<b>3.04</b>	<b>60.8%</b>	<b>High</b>

It is suggested that the capacity building interventions should be implemented with the aim of building the capacity of LNBWB to address the capacity gaps identified in section 2 above. Table 12 below presents the results of the prioritization exercise, whose activities are described in sections 3.1.1 and 3.1.2

**TABLE 12 PRIORITY CAPACITY BUILDING ACTIVITIES**

Focus Area	Top Priorities	Links to MUM Tasks and Performance Indicators	Level of intervention
<b>Enhance Internal procedures and operations of the LNBWB</b>	Develop and implement an internal strategy to fill staffing gaps with specific focus on critical cadres: e.g. Lawyer, Hydrogeologists, Hydrologists, Civil Engineers, Community Development Officers, and Water Resources Engineers. Possible strategies include hiring technical under short-term contracts or partnering with institutions like Engineers Registration	Task 4.1, Indicators- 0.1, 4.1	BWB

	Board (ERB) to expand graduate schemes to BWBs.		
	Build the capacity of Basin staff in leadership and project management	Task 4.1, Indicators- 0.1, 4.1	BWB
	Support procurement of hydrological equipment, hydrometric and hydro meteorological stations	Task 4.1, Indicators- 0.1, 4.1	BWB
	Support procurement of hydrogeological equipment and establishment of groundwater monitoring stations	Task 4.1, Indicators- 0.1, 4.1	BWB
	Support procurement of water quality monitoring equipment and stations	Task 4.1, Indicators- 0.1, 4.1	BWB
<b>Enhance the capacity of LNBWB in stakeholder engagement and relations</b>	Supporting BWBs to put in place systems and institutionalize processes that would help them to effectively meet the needs of water users and service providers before, during, and after purchase of the product or services from BWBs	Task 4.1, Indicators- 0.1, 4.1	BWB
	Implementing innovative and cost-effective approaches to enhance stakeholder participation in basin forums and improve coordination and implementation of water resources interventions between BWBs and WUAs, LGAs RUWASA, CBWSOs, WSSAs.	Task 4.3, Indicators- 0.1, 4.1	National BWB WUA
<b>Improve the capacity of LNBWB to effectively execute its water resources management functions</b>	Implementing cost effective and multisectoral approaches to expand water resources monitoring networks and improve quality of data collection, monitoring and reporting for decision making	Task 4.1, Indicators- 0.1, 4.1	BWB WUA
	Supporting BWBs to adopt strategies to increase revenue from water uses alongside mobilization of funds from public and private sector	Task 2.5 and 4.1, Indicators- 0.1, 2.4, 4.2	BWB WUA
	Implementing cost-effective and multisectoral	Task 4.2,	BWB WUA

	approaches in the protection and restoration high priority catchments with the goal of guaranteeing adequacy and reliability of drinking water services	Indicators- 0.1, 4.1	
<b>Enhance Youth and Women empowerment and participation in the water sector</b>	Supporting BWBs to collect and use sex-disaggregated data and apply gender analysis and its results in planning and implementation of activities.	Cross-cutting: Gender and Youths Performance Indicator-0.4	BWB
	Review communication strategy and support implementation to explicitly consider and respond to the IWRM related interests of women and youth.	Cross-cutting: Gender and Youths Performance Indicator-0.4	BWB
	Capacity building on CC adaptation with gender inclusive approaches to climate action	Cross-cutting: Gender and Youths Performance Indicator-0.4, 4.1	BWB

### 3.2 CAPACITY BUILDING PLAN

MUM capacity building interventions aim to improve the institutional capacity and operational efficiency of the LNBWB with the specific focus on following aspects:

- *Resource mobilization:* Supporting LNBWB to adopt strategies to increase revenue from water uses alongside mobilization of funds from public and private sector. Examples of strategies include identification and registration of all water users, agreeing payment schedules with users, appointing collection agents, etc.
- *Customer service:* Supporting LNBWB to put in place systems and institutionalize processes that would help them to effectively meet the needs of water users and service providers before, during, and after purchase of the product or services from BWBs. Examples of initiatives to improve customer service include establishing customer call centres, developing MoUs with corporate customers, etc.
- *Communication with stakeholders:* Implementing innovative and cost-effective approaches to enhance stakeholder participation in basin forums and improve coordination and implementation of water resources interventions between BWBs and WUAs, LGAs RUWASA, CBWSOs and WSSAs. Examples include making use of existing planning and coordination forums such as Regional Consultation Councils (RCCs), District Consultation Councils (DCCs), RUWASA and EWURA WSSAs annual forums, Regional Investment forums, etc.
- *Water Sources/catchment protection:* Implementing cost-effective and multisectoral approaches in the protection and restoration of high priority catchments with the goal of guaranteeing adequacy and reliability of drinking water services. Examples include coordination and

streamlining water sources/catchment protection in the towns and district master plans, RUWASA and WSSA investment and business plans and working in partnership with private sector to protect and conserve critical water sources.

- *Use of Data for Decision Making.* Implementing cost effective and multisectoral approaches to expand water resources monitoring networks and improve quality of data collection, monitoring and reporting for decision making. Examples include instituting data sharing protocols with other institutions such as the Tanzania Meteorological Agency (TMA), RUWASA, WSSAs, CBWSOs and Private sector.
- *Gender and Youth:* Supporting BWBs to collect and use sex-disaggregated data and apply gender analysis and its results in planning and implementation of activities.

Table 13 below outlines specific capacity building interventions to be carried out starting in FY2022 in line with MUM's approved work plan.

**TABLE 13 CAPACITY BUILDING PLAN**

Focus Area	Area of improvement	Capacity building interventions	Link to MUM Tasks	Time line	Target or desired outcome	Responsible	Modes of delivery
<b>Enhance Internal procedures and operations of the LNBWB</b>	A need to address staffing gaps	Technical Assistance and Facilitation of LNBWB to develop and implement an internal strategy to fill in staffing gaps with specific focus on critical cadres: Lawyer Hydrogeologists, Hydrologists, Civil Engineers, Community Development Officers, and Water Resources Engineers	Task 4.1	Year 2,3,4	BWB able to fill in critical HR (Human Resources) needs	LNBWB	MUM staff Technical Support, STTA
	A need to improve leadership and project management skills of key staff at BWBs	Capacity building through training, project management and inclusive leadership skills	Task 4.1	Year 2,3,4	10 personnel (senior, middle, and lower levels managers and technicians-including graduates) trained and equipped with project management and leadership skills Attention will be paid to ensure that women and young professionals are equitably represented in each training cohort.  Greater application of soft skills in the Organization	LNBWB	MUM staff Technical Support, STTA
	A need to increase hydrological equipment, hydrometric and hydro meteorological	In-Kind grant to identify priority catchment, identify gaps procure hydrological equipment and install hydrological equipment, hydrometric	Task 4.1	Year 2,3,4	Increased network of priority hydrological and hydro meteorological stations in priority catchments	LNBWB	Technical Assistance through MUM staff, STTA

Focus Area	Area of improvement	Capacity building interventions	Link to MUM Tasks	Time line	Target or desired outcome	Responsible	Modes of delivery
	stations in priority catchments	and hydro meteorological stations to					and In-kind grants
	A need to increase hydrogeological equipment and groundwater monitoring stations in priority catchments	In-Kind grant to identify priority catchment, identify gaps procure hydrogeological equipment and install groundwater monitoring stations in priority catchment	Task 4.1	Year 2,3,4	Increased network of priority hydrogeological and groundwater monitoring stations in priority catchments	LNBWB	Technical Assistance through MUM staff, STTA and In-kind grants
	A need to increase water quality monitoring equipment and stations	In-Kind grant to identify priority catchment, identify gaps, procure water quality equipment, and install water quality monitoring stations in priority catchment	Task 4.1	Year, 2,3,4	Increased network of priority and strategic water quality monitoring stations in priority catchments	LNBWB	Technical Assistance through MUM staff, STTA and In-kind grants
<b>Enhance the capacity of LNBWB in stakeholder engagement and relations</b>	A need to improve customer service	Technical Assistance to put in place systems and institutionalize processes that would help them to effectively meet the needs of water users and service providers before, during, and after purchase of the product or services from BWBs	Task 4.1	Year 1,2,3,	Presence of customer service charter Improved customer services and customer relations measured by users' satisfaction	LNBWB	MUM staff technical support, STTA
	A need to improve communications with Stakeholders	Technical Assistance to update and implement communication strategy and	Task 4.3	Year 1, 2,3	Improved customer services and customer relations measured by users' satisfaction	LNBWB	MUM staff technical support, STTA

Focus Area	Area of improvement	Capacity building interventions	Link to MUM Tasks	Time line	Target or desired outcome	Responsible	Modes of delivery
		implement innovative and cost-effective approach to enhance stakeholder participation in basin forums and improve coordination and implementation of water resources interventions between BWBs and WUAs, LGAs RUWASA, CBWSOs, WSSAs.					
<b>Improve the capacity of LNBWB to effectively execute its water resources management functions</b>	A need to use of data for decision making	Technical Assistance to implementing cost effective and multisectoral approach to expand water resources monitoring networks and improve quality of data collection, monitoring and reporting for decision making	Task 4.1		Improved capacity of BWBs to manage water resources, including under changing climatic conditions		Technical Assistance through MUM staff, STTA and In-kind grants
	A need to increase revenues	Technical Assistance to adopt strategies to increase revenue from water uses alongside mobilization of funds from public and private sector	Task 2.5, 4.1	Year 1,2,3, 4	Presence of resource mobilization strategy BWBs and WUAs have increased revenue from water user fees. BWBs and WUAs have increased budgets for operating costs and the implementation of management plans	LNBWB, WUA	Technical Assistance through MUM staff, STTA
	A need to protect and restore catchments	Technical Assistance to implementing cost-effective and	Task 4.2	Year 2,3,4	Improved reliability and quality of bulk water supply to supported small towns	LNBWB, WSSAs,	Technical Assistance through MUM



Focus Area	Area of improvement	Capacity building interventions	Link to MUM Tasks	Time line	Target or desired outcome	Responsible	Modes of delivery
		multisectoral approaches in the protection and restoration high priority catchments with the goal of guaranteeing adequacy and reliability of drinking water services			Number of people benefiting from adoption and implementation of measures to improve water resources management, including under changing climate conditions	RUWASA, CBWSOs	staff, STTA and In-kind grants
<b>Enhance Youth and Women empowerment and participation in the water sector</b>	A need to collect and use sex-disaggregated data in planning and implementation of water resources activities	Technical Assistance to BWBs to collect and use sex-disaggregated data and apply gender analysis and its results in planning and implementation of activities.	Gender and Youth Engagement	Year 1,2,3, 4	Active participation of youth in planning and management of water resources at all levels. This could also include women and youth taking up positions at WUAs.	LNBWBs, WUAs	Technical Assistance through MUM staff, STTA
	A need to have communication strategies that meet the needs of youths and women	Review communication strategy and support its implementation to explicitly consider and respond to the IWRM related interests of women and youth.	Gender and Youth Engagement Task 2.3	Year 2,3, 4	Youth and women economic participation, including increasing youth opportunities for self-employment and other forms of employment	LNBWB	Technical Assistance through MUM staff, STTA
	A need to adopt climate change adaptation with gender inclusive approaches to climate action	Technical Assistance to mainstream climate change adaptation measures with gender inclusive approaches to climate action	Gender and Youth Engagement Task 2.3	Year 2,3, 4	Youth and women economic participation, including increasing resilient to climate change	LNBWB	Technical Assistance through MUM staff, STTA

### 3.3 CAPACITY BUILDING APPROACH

The goal of MUM is to strengthen LNBWB capacity to improve institutional performance and operational efficiency. MUM will use the following approaches to build priority capacity areas of LNBWBs across key areas of focus outlined in Table 12 above.

- **Build Ownership through continuous stakeholder engagement:** MUM's approach to enhancing the capacity of LNBWBs hinges on the learning-by-doing approach. Following this approach, MUM will work with water resources key actors (MoW, BWBs and WUAs) to implement planned activities and tasks as set out in Table 13 above. This will involve but not be limited to engaging with relevant actors (MoW and BWBs) to allocate adequate resources for the recruitment of new staff, procure needed equipment, and provide technical support in preparation of measures and mechanisms for resources mobilization. Engaging with other stakeholders, especially Development Partners and the private sector (corporates who are key users of water) is also necessary because of the challenging capacity needs facing BWBs which cannot be fulfilled through MUM's interventions only, but rather through collaboration with other stakeholders.
- **Use of Short-Term Technical Assistance:** MUM will deploy Short Term Technical Assistance (STTAs) to provide demand-driven, targeted, time-bound technical assistance to LNBWB on key priority areas such as resource mobilization and revenue management, and gender and youth empowerment.
- **Use of In-Kind Grants:** During the implementation, depending on the needs, through in-kind grant arrangement, MUM will support LNBWB with working tools and equipment to support implementation of activities in the MUM focused catchments.
- **Training of LNBWB staff:** MUM will design and deliver short term customized training programs targeting both technical and support staff at the LNBWB. Given the need to strengthen project leadership and management skills, the training programs will be tailored to enhance leadership and project management skills of basin staff. MUM will ensure the training includes Gender Integration and Youth Engagement (GIYE) in WRM.
- **Learning exchange amongst BWBs.** MUM will support cross learning amongst the BWBs in key areas such as resource mobilization strategy and implementation of effective mechanisms to enhance communications with stakeholders.

### 3.4 MONITORING AND EVALUATION APPROACH

During the development of the LNBWB CBP, MUM carried out a comprehensive assessment of the existing baseline capacity. Results of the LNBWB baseline capacity are presented in Annex I at the end of this report. To measure progress in each of the focus areas, MUM will work together with LNBWB to commission a BWB Performance Assessment (see details in Annexes I and III) using available and approved tools to measure progress on key capacity areas of LNBWB on a periodic basis (every two years). The tools will assess changes in capability due to MUM interventions in three key areas: i) internal procedures and operations; ii) stakeholder engagement and relations and iii) effectiveness in water resources management functions with specific focus on the following domains: resource mobilization, customer services, communication with stakeholders, water sources/catchment protection, Use of Data for Decision Making and Gender and Youth engagement. To enable comparison over years, MUM will use the same methodology used to assess the baseline capacity of BWBs.

# **ANNEXES**

**ANNEX 1: BASELINE SELF ASSESSMENTS FINDINGS**

**ANNEX II: PRIORIIIZATION FOR CAPACITY DEVELOPMENT USING PRIORITY INDEX**

(annexes are not included in this DEC submission)

**U.S. Agency for International Development**  
1300 Pennsylvania Avenue, NW  
Washington, DC 20523  
Tel: (202) 712-0000  
Fax: (202) 216-3524  
[www.usaid.gov](http://www.usaid.gov)