

Improving Government Response to Pollution Control in Water Resources in Tanzania

Policy Brief August 2024 | Mwajuma Salum Basho and Rose Njage



This policy brief is a product of the Accountability for Water Programme (AfW), which forms an integral part of action research initiative led by the Partnership for African Social and Governance Research (PASGR), and implemented in collaboration with the Water Witness Ethiopia (WWI – Ethiopia), KEWASNET, Shahidi wa Maji, and Water Witness International (UK). The AfW programme is a three-year investment funded by the William and Flora Hewlett Foundation. PASGR extends gratitude to all project stakeholders and beneficiaries in Ethiopia, Kenya and Tanzania. We also duly acknowledge all the authors, reviewers, and contributors who have played a pivotal role in the production of this brief.

Executive Summary

Despite the existence of several government policies, laws, and institutional frameworks around the water sector, water resources in Tanzania are polluted by industrial and domestic effluents. This policy brief presents highlight of findings from the case studies of water pollution of Msimbazi and Ngerengere Rivers as part of the Accountability for Water Research Programme phase one (2020-2023) implemented by Shahidi wa Maji in collaboration with Water Witness International and Partnership for African Social & Governance Research (PASGR). The project aims to improve water governance through evidence-based advocacy. The study found that government efforts towards pollution prevention and control are constrained by limited human and financial resources coupled with institutional factors such as overlapping mandates. Addressing these constraints call for leveraging opportunities through collective efforts of the relevant government authorities, private sector engagement and community social mechanisms.



Introduction

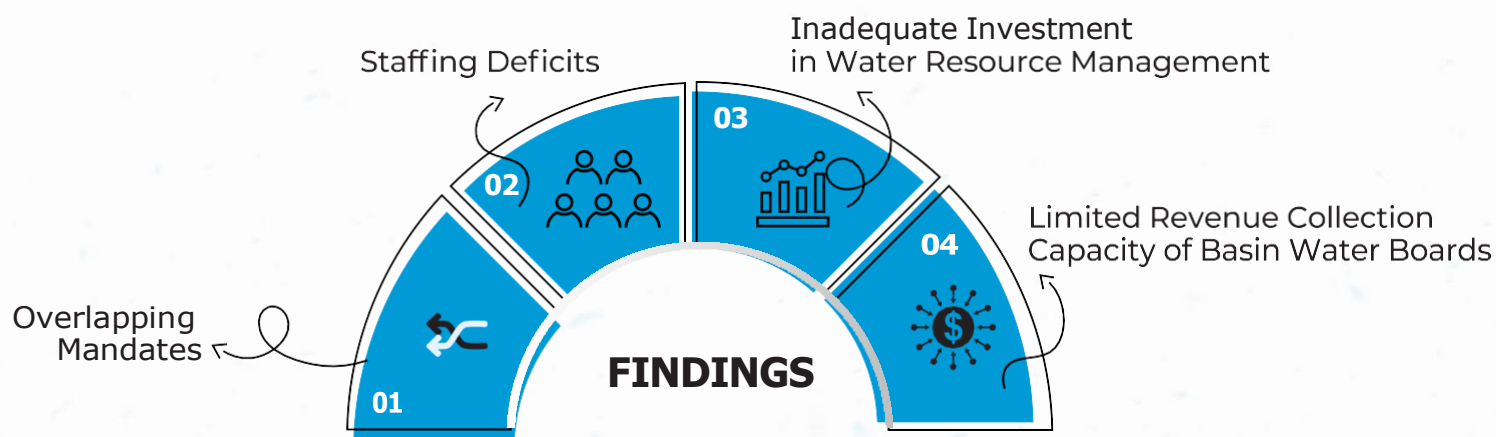
Tanzania is endowed with water resources such as Indian Ocean, rivers, Lakes, dams, and wetlands. The country has several policies, laws and institutions to ensure the protection and conservation of water resources. The Water Resources Management Act Cap 331 and Environment Management Act Cap 191 prohibit pollution of water resources. However, pollution remains a critical challenge affecting water resources in Tanzania. Specifically, Msimbazi and Ngerengere Rivers are polluted by effluents and solid wastes from industries, abattoirs, households, and waste stabilisation ponds (PO-RALG, 2021).

Consequently, the water is contaminated with heavy metals such as Chromium VI (PO-RALG, 2021) and lead (Chanzi, 2017). The heavy metals have increased the water pH level to 12, which is relatively higher than the required legal standard of 8 (PO-RALG, 2021). Pollution of the Ngerengere River poses significant threats to the health of local communities, who use the rivers for domestic purposes (Ahmad, 2015; TAWASANET, 2019; Sauka, 2019). Furthermore, vegetables grown near Msimbazi River contain toxic chemicals such as lead and copper. Yet such vegetables are consumed by residents of Dar es Salaam City (Leonard et al., 2012).

Government authorities have taken a proactive stance in response to the problem of water pollution. In 2016, NEMC enforced the Environment Management Act of 2004 and penalised NIDA Textile Mill with a fine amounting to Tanzania Shillings 30 million. In the same year, NEMC penalised the plastic bag manufacturing industry, UNBERG International, with a fine of 25 million Tanzanian shillings (Dar24Media, 2016). Despite the government response, the behaviour of discharging untreated wastewater in the river persists (Francis & Said, 2023).

The problem of water pollution raises the question, "What constraints affect government response towards water pollution? and what should be done to strengthen government response towards pollution prevention and control?" To answer these questions, Shahidi wa Maji conducted two qualitative research studies in Msimbazi and Ngerengere River from 2020 to 2023. The studies aimed to identify constraints affecting accountability for water pollution in Ngerengere and Msimbazi Rivers in Tanzania. This policy brief has two objectives. First, it highlights constraints toward water pollution and prevention control in Msimbazi and Ngerengere River. Secondly, it proposes recommendations for enhancing government response towards water pollution in the respective Rivers.

The study employed a qualitative research approach which involved a combination of key informant interviews with government representatives from the National Environment Management Council (NEMC), Kinondoni Municipal Council, Dar es Salaam City Council, Wami-Ruvu Basin Water Board, and Water User Associations. The primary data was complemented with an analysis of relevant laws such as the Environment Management Act of 2004 and Water Resources Management Act of 2009, and related government reports.



01 Overlapping Mandates

The findings of reviews of related laws indicate that multiple government authorities are responsible for water pollution control at different levels. There are notable overlapping mandates between different institutions as shown in Table 1, which summarizes the overlaps between the Environmental Management Act (EMA) of 2004 and the Water Resources Management Act (WRMA) of 2009 in assigning responsibilities to different government institutions.

Aspect	EMA (2004)	WRMA (2009)	Overlaps
Pollution control	Local government authorities should manage solid and storm water and ensure municipal wastewater is appropriately treated before being discharged into water bodies NEMC is a regulatory body [Sec. 125]	Basin Water Boards issue water use permits and discharge permits and enforce compliance before discharging of effluents to the environments [Sec. 123]	Both NEMC and BWBs have regulatory roles in managing waste water.
Monitoring Compliance	NEMC conducts inspections to ensure compliance with environmental standards [Sec. 142]	Basin Water Boards to monitor compliance as pollution prevention measures approach [Sec. 23]	Both are involved in monitoring compliance with environmental standards
Enforcement of laws	NEMC to take necessary measures to ensure industries meet standards, and conducting inspections [Sec. 142].	Basin Water Board to direct discharging entities to take necessary measures to control pollution of water sources to [Sec. 39 & 40].	Both have authority to enforce actions to address pollution issues.

The overlapping mandates have implications for pollution prevention and control, as they create confusion regarding which agency is responsible for specific actions especially related to monitoring compliance and enforcement. Findings from interviews showed that some government authorities have experienced challenges in monitoring industries because some industries recognise NEMC as the sole regulator in monitoring compliance for water pollution control [Interview Data, 2022].

02 Staffing Deficits

Effective pollution control requires sufficient and well-trained staff to conduct inspections of water resources and water discharge activities. However, government institutions responsible for monitoring and controlling water pollution face staff deficits. According to the audit report of the Controller and Auditor (CAG) report on the audit of water abstraction of 2017, the Wami-Ruvu Basin Water Board had 74 employees with a deficit of 60 employees. Staff deficits impair the ability of Basin Water Board to conduct regular monitoring of water resources such as Msimbazi and Ngerengere Rivers. Inadequate monitoring contributes to the discharge of untreated wastewater into water resources.

03 Inadequate Investment In Water Resource Management

According to the Water Sector Status Report of 2023, effective water resources management in Tanzania is constrained by inadequate investment in water resources management. A recent budget analysis report of TAWASANET of 2020/2021 shows water resources management in Tanzania is underfunded. In FY2020-2021, the WSS took a lion's share of TZS. 643 billion (91%) while the Water Resources Management (WRM) component was allocated TZS. 44 billion (equivalent to 6%) and other remaining components were allocated TZS. 18 billion, (equivalent to 3% of the budget). Underfunding of water resources management affects ability of Basin Water Boards to invest in monitoring of water resources.

04 Limited Revenue Collection Capacity of Basin Water Boards

One of the challenges that constraint effective management of water resources in Tanzania is limited technical capacity of Basin Water Boards (Ministry of Water, 2020). According to the Controller and Auditor General, in the financial year 2022/23, the Wami Ruvu Basin Water Board did not receive revenue from a total of 500 expired water use permits, resulting in uncollected revenue amounting to Tanzanian shillings of 110,900,000 (CAG, 2024). Uncollected revenue limits the Basin Water Board's ability to manage water resource functions (CAG, 2024), including conducting inspections and monitoring of water resources and demarcating water resources such as the Msimbazi River.



Recommendations

Overlapping Mandates as an Opportunity

Leveraging overlapping mandates in Tanzania's environmental management framework can be a strategic opportunity to strengthen pollution control rather than viewing them solely as sources of confusion. Turning overlapping mandates into strategic collective accountability, Shahidi wa Maji proposes an Joint Pollution Control Team composing of Focal persons from NEMC, Wami-Ruvu Basin Water Board and respective Local Government Authorities (LGAs) including Dar es Salaam City Council, Kinondoni Municipal Council and Morogoro Municipal Council be established to strengthen monitoring, facilitate communication and collaboration among others to improve pollution control. The task force will ensure pollution control through enhanced enforcement.

1. Coordinated inspections where by all relevant government institutions (NEMC, Wami-Ruvu Basin Water Boards,) conduct joint monitoring to ensure compliance inspection, and enforcement of penalties.
2. Developing a shared database that allows government institutions to share water quality monitoring data, compliance reports and inspection results.

Leveraging Social Accountability to Strengthen Monitoring

Amid staffing deficits, Wami-Ruvu Basin Water Board can leverage social accountability mechanisms by engaging local community and civil society organisations like Shahidi wa Maji in monitoring practices of discharging wastewater in the Msimbazi and Ngerengere Rivers. This can be done through the following:

1. Encouraging local communities to use the established government reporting mechanisms such as e-mrejesho which allow citizens to report using their mobile phones.
2. Leveraging partnership with Shahidi wa Maji to build capacity of local communities to use reporting channels to report activities of discharging waste water into the rivers.

Strengthening Incentives for Compliance

Within the limited budget, water resource management may continue to strain if Basin Water Boards do not embark strategic measures.

We propose that:

1. The President's Office-Regional Administration and Local Government Authority (PO-RALG) should ensure rehabilitation projects for Msimbazi River is implemented. The successful implementation of the project will help to turn Msimbazi into eco-tourism hub, and enable generation of revenue which will be reinvested in protecting the river and other water resources.
2. The PO-RALG in collaboration with Wami-Ruvu Basin Water Board, and Local Government Authority should scale up the implementation of eco-tourism rehabilitation project for Ngerengere River.
3. Relevant government authorizes including Wami-Ruvu Basin Water Board, Water Supply and Sanitation Authorities, Local Government Authorities, National Environment Management Council (NEMC) should collaborate with other stakeholders including industries, relevant CSOs, and business organizations investing in water technologies to conduct deeper analysis to explore and adopt innovate and eco-friendly ways for re-using waste water.

References

- URT. (2019). The Water Supply and Sanitation Act No. 5 of 2019. Government Gazette.
- URT. (2004). Environment Management Act No. 20 of 2004. Government Gazette.
- URT. (2009). Water Resource Management No. 11 of 2009. Government Gazette.
- NAO. (2018). Performance Audit Report on Provision of Sewage Services in Urban Areas. Dodoma: National Audit Office.
- NAO. (2020). The Annual General Report on the Performance and Specialised Audit for the Period Ending 31st March, 2020. Dodoma: National Audit Office.
- Chanzi, G. (2017). Heavy Metal Pollution Assessment along Msimbazi River, Tanzania. *Journal of Scientific Research & Reports*, 17(5), 1-8.
- TAWASANET. (2021). Analysis of the Water Sector's Budget for the Financial Year 2020/2021. TAWASANET.
- Leonard, L. S., Mwegoha, W., & Kihampa, C. (2012). Heavy Metal Pollution and Urban Agriculture in Msimbazi River Valley: Health Risks and Public Awareness. *International Journal of Plant, Animal and Environmental Sciences*, 2(2), 107-118.
- Ministry of Water. (2020). Five Year Medium Term Strategic Plan 2019/20-2023/24. Dodoma: Ministry of Water.
- CAG. (2017). Performance Audit Report on Control of Water Abstraction from the Water Sources. National Audit Office
- CAG. (2024). Annual General Report on Central Government Auditor for the Financial Year 2022/23. Dodoma: National Audit Office.
- PO-RALG. (2021). The Msimbazi Basin Development Project. Dodoma: President's Office-Regional Administration and Local Government (PO-RALAG).



WILLIAM + FLORA

Hewlett
Foundation