



THE REVOLUTIONARY GOVERNMENT OF ZANZIBAR

MINISTRY OF WATER, ENERGY AND MINERALS

TERMS OF REFERENCE

**CONSULTANCY SERVICE FOR ENGAGEMENT OF AN INDIVIDUAL
CONSULTANT TO PROVIDE TECHNICAL EXPERT SERVICES IN WATER
RESOURCES MANAGEMENT**

July 2026

1. Introduction

Zanzibar is increasingly facing challenges in the sustainable management of its water resources due to rapid population growth, urbanization, climate variability, and over-dependence on groundwater sources. Water demand continues to rise, while available resources are under pressure from over-abstraction, saltwater intrusion, and declining recharge rates.

Ensuring sustainable, equitable, and climate-resilient water resources management is critical for the socio-economic development of Zanzibar. This requires strengthened technical capacity, improved planning, and the adoption of integrated water resources management (IWRM) approaches.

The Ministry of Water, Energy and Minerals therefore intends to engage an Individual Consultant to provide technical expert services in water resources management to support planning, assessment, monitoring, and sustainable utilization of water resources in Zanzibar.

2. Background

2.1 Water Resources Availability and Dependence

Zanzibar depends almost entirely on groundwater aquifers to meet its water supply needs. These aquifers are sensitive to both natural and human-induced changes. Increasing abstraction rates, coupled with inadequate recharge, have led to declining groundwater levels in several areas. Coastal aquifers are particularly vulnerable to saltwater intrusion, which compromises water quality and reduces the availability.

2.2 Key Water Resources Management Challenges

Water resources management in Zanzibar is constrained by several interrelated challenges. These include inadequate hydrogeological data, limited monitoring infrastructure, weak enforcement of water abstraction regulations, and insufficient protection of recharge areas. In many areas, water use is not adequately regulated, leading to unsustainable extraction practices.

Additionally, pollution from domestic wastewater, agricultural activities, and solid waste disposal poses a growing threat to water quality. Without effective management measures, these challenges are likely to worsen, affecting both human health and ecosystem sustainability.

2.3 Climate Change and Environmental Pressures

Climate change is expected to exacerbate existing water resource challenges through increased variability in rainfall patterns, more frequent droughts, and rising sea levels. These changes can significantly affect groundwater recharge, increase flood risks, and intensify saltwater intrusion in coastal zones.

2.4 Institutional and Capacity Constraints

The 2025 Zanzibar Water and Sanitation Policy made provisions for the Ministry of Water, Energy and Minerals to establish a Water Resources Management Division, under the Department of Water Development and Sanitation Management, with primary functions being undertaking water resource planning, resource monitoring and data management, demand management, allocation, developing new water sources, water source and catchment conservation. These foundational activities were previously under the jurisdiction of the Zanzibar Water Authority (ZAWA) of which have now been transferred to the Ministry of Water, Energy and Minerals. Despite the institutional provision for the new water resources division, the requisite technical capacity to undertake its key functions remains low mainly because of lack of strategic and sustained capacity development on water resources management in the sector. There remain critical gaps in technical aspects of water resource planning, monitoring, data management, and coordination among institutions and sectors that are influencing and or being influenced by water resources. Strengthening institutional frameworks and building technical expertise are essential to ensure effective planning, monitoring, and allocation of water resources.

3. Objective of the Assignment

The overall objective of this assignment is to provide sustained technical support to the Ministry of Water, Energy and Minerals in strengthening water resources management systems in Zanzibar.

Specifically, the assignment aims to:

- Improve understanding of water resources availability and utilization
- Strengthen monitoring, data management, and decision-making systems
- Promote sustainable and equitable allocation of water resources
- Enhance climate resilience and environmental protection
- Strengthen institutional capacity for effective water governance

The outputs of this assignment will be used to inform

- i. Future water resources and WASH investments in Zanzibar;
- ii. strengthening of regulatory and abstraction control mechanisms;
- iii. climate and drought preparedness planning; and
- iv. coordination with development partners and the private sector, including utilities and major water users.

Success of the assignment will be measured by improved availability of water resources information; informed and enhanced decision-making on water resources allocation, planning, abstraction and protection; strengthened institutional capacity and well-aligned practices; and increased readiness to manage climate and drought risks in water resources management.

4. Specific Tasks of the Consultant

The Consultant will act as a **Technical Advisor and Lead Expert**, strengthening the institutional capacity of the Division of Water Resources Management by supporting analysis, providing technical guidance, undertaking capacity development endeavours and coordination, while implementation and day-to-day data collection remain the responsibility of relevant institutions. The Technical Advisor shall support the Division of Water Resources Management through undertaking the following tasks:

1. Undertake capacity appraisal for the division and identify strategic areas of support
2. Conduct a comprehensive assessment of water resources, including groundwater and surface water systems.
3. Review existing policies, laws, and strategies related to water resources management.
4. Assess current water abstraction, usage patterns, and demand projections.
5. Evaluate the status of aquifers, recharge areas, and catchment zones.
6. Identify risks related to climate change, pollution, and over-extraction.
7. Develop strategies for sustainable water resources management, including conservation and protection measures.
8. Conduct consultations (physical and virtual) with experts and stakeholders at national, regional (Eastern & Southern Africa), and international levels to identify and promote best IWRM practices applicable to Zanzibar.
9. Propose mechanisms for improving water resources monitoring, data collection, and information systems.
10. Support development of regulatory and institutional frameworks for effective water governance.
11. Support Technical Assistance on drafting of new Water and Sanitation Act.
12. Prepare and present technical reports and recommendations to the Ministry.

5. Scope of Work / Key Tasks

5.1 Water Demand Assessment

The Technical Advisor will support to Conduct a **water demand assessment** covering domestic, tourism, institutional, agricultural, and industrial uses, including seasonal and spatial variation. Also, to Undertake a **high-level water balance / water stress analysis**, comparing available resources, recharge, abstraction, and projected demand under baseline and climate-stress scenarios.

5.2 Policy and Institutional Review

The Technical Advisor will support the Ministry of Water, Energy and Minerals (MoWEM) to conduct a thorough review of existing water policies, legal frameworks, and institutional arrangements. This will include assessing their effectiveness in regulating water use, protecting

resources, and ensuring equitable access. Recommendations will be provided to address identified gaps and improve governance structures.

5.3 Water Resources Assessment

A detailed technical assessment of water resources will be carried out, focusing on groundwater systems, abstraction vs recharge processes, salinity risk, spatial hotspots, surface water interactions as well as alternative sources of freshwater. The Consultant will support the Ministry to evaluate the sustainability of current abstraction levels and identify priority areas for intervention.

5.4 Water Resource Planning

The Technical Advisor will support MoWEM in formulation of water allocation and utilization frameworks that define permitting and licensing guidelines leading to establishment of regulatory mechanisms for water rights allocation for different water demand regimes to ensure equitable resource allocation. The Advisor will also support analytics on potential economic incentives for adoption of water-saving measures.

5.5 Water Monitoring and Information Systems

The Advisor will support MoWEM in reviewing existing water monitoring systems, including data collection methods, equipment, and data management practices. Recommendations will be made to strengthen monitoring networks and improve the reliability and accessibility of water resources data.

5.6 Water Source Conservation and Protection

The Technical Advisor shall support the Ministry in developing water resources protection and conservation measures that promote active stakeholder/sectoral engagement and community participation leading to mapping and gazettement of water sources.

5.7 Climate Resilience and Environmental Protection

The Consultant will assess the vulnerability of water resources to climate change and environmental degradation. Based on this assessment, strategies will be developed to enhance resilience, protect ecosystems, and ensure long-term sustainability. The assessment shall include identification of priority drought-prone zones, implications of extended dry periods on groundwater availability, and practical recommendations for early action, abstraction management, and demand control during drought conditions. Where feasible, link findings to existing or emerging early warning and monitoring systems.

5.8 Capacity Building and Knowledge Transfer

The Consultant will support capacity building within the Ministry and related institutions through training, mentorship, and knowledge sharing. He or she will provide structured on-the-job mentoring and advisory support to the technical staff in the division on water resources management.

The expert will provide technical support to the Ministry in its initial stages of establishing the Zanzibar Water Institute and also work closely with research and academic institutions to identify potential areas of further research in water resources management. This will ensure that technical skills and expertise are sustained beyond the duration of the assignment.

5.9 Stakeholder Engagement and Coordination

The consultant will provide **technical inputs to stakeholder consultations convened by the Ministry**, and participate in selected priority consultations, including with government agencies, local communities, private sector actors, and development partners. This will ensure alignment of interventions and promote collaborative water resources management.

6. Reporting, Performance Milestones and Technical Support Arrangements

Deliverable	Description	Timeline	Review / Approval Timeline
Inception Report	Detailed methodology, detailed workplan, stakeholder map, and M&E framework	Within 2 weeks	Client to provide comments within 5 days; Consultant to revise within 3 days
Monthly Report	Progress against agreed Workplan	Every month	Client to provide comments within 3 days; Consultant to revise within 2 days
Quarterly Reports	Progress against agreed workplan, emerging technical findings, risks/issues requiring management attention, next-quarter priorities.	Every 3 months	Client to provide comments within 7 days; Consultant to revise within 5 days
Mid-Term Report	Comprehensive review of progress and preliminary outcomes	12 months	Client to provide comments within 7 days; Consultant to revise within 5 days
Final Report	Final report incorporating	24 months	Client to provide final approval within 10 days after

	feedback and recommendations		submission of revised report
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The Consultant shall provide continuous technical advisory and institutional support throughout the assignment period. The assignment is performance based and focused on sustained technical assistance, mentorship, coordination, and operational support to the Division of Water Resources Management, rather than on stand alone document submissions only.

In order to facilitate monitoring of progress and contract administration, the Consultant shall prepare and submit the following reports and performance milestones:

- a) Inception Report within two (2) weeks from commencement of the assignment, including methodology, workplan, stakeholder engagement approach, and performance framework.
- b) Monthly Progress Reports summarizing activities undertaken, technical support provided, progress against agreed workplans, challenges encountered, and planned activities for the following month.
- c) Quarterly Progress Briefs highlighting strategic achievements, technical findings, risks/issues requiring management attention, and recommendations for improving water resources management.
- d) Mid Term Progress Review after twelve (12) months summarizing progress achieved, institutional capacity improvements, lessons learned, and recommendations for the remaining assignment period.
- e) Final Technical Completion Report at the end of the assignment summarizing technical support provided, key achievements, institutional strengthening outcomes, recommendations, and sustainability measures.

All reports shall be reviewed and approved by the Ministry of Water, Energy and Minerals.

7. Methodology

The Technical Advisor is supposed to work in close consultation with a technical committee which will be composed of Senior Officers from the Department responsible for Water under the Ministry of Water, Energy and Mineral. Under this assignment, the Technical Advisor is required to submit all the reports to the Principal Secretary Ministry of Water, Energy and Minerals.

The Technical Advisor is expected to execute the assignment in the following manner:

- i. Participatory approach includes conducting an initial meeting with the Ministry of Water, Energy and Minerals immediately after being awarded the contract to discuss the details of the assignment, modalities of the work and expected outcome.
- ii. Use of and reference to case studies at national and regional level. This also entails consultation within and outside Zanzibar with relevant technocrats in the relevant thematic areas in order to encompass best practices with the view to meet national, regional and international standards.

8. Role of the Client

The Ministry of Water, Energy and Minerals in collaboration with Zanzibar Water Authority will provide the following input to the consultant in order to facilitate the assignment:

- i. All relevant documents include; Zanzibar Constitution of 1984, Zanzibar Vision 2050, Zanzibar Water Investment Programme 2022-2027, Water and Sanitation Policy 2025, other relevant Policies, Laws, Regulations, Strategy, CCM 2025 - 2030 Manifesto, Studies, Reports and Researches.
- ii. Organize all relevant meetings and appointments needed to support smooth running of the assignment.
- iii. Provide working space for the Technical Advisor
- iv. Timely and reasonably comments on all products/reports of this assignment.
- v. Act as Liaison with the responsible Ministry and other public institutions
- vi. Review, give comments, approve reports submitted and make payments as per contract agreement;
- vii. The selected consultant should consider all logistical costs associated with the performance of the task in his/her budget.

9. Counterpart Staff

The client shall second staff including engineers, hydrologists, geologists, and natural resource management specialists for **on-the-job training and knowledge transfer**. The counterpart staff will be responsible to the consultant but shall not be accountable for the outputs that will be submitted to the client.

10. Reporting

- The Technical Advisor will report to the Principal Secretary MoWEM through the Director of Water Development and Sanitation Management.
- The Advisor will submit monthly timesheets and brief monthly progress updates for contract administration, monitoring of effort, and performance tracking only. These submissions shall not constitute the basis for payment. Payments shall be made only upon submission, review, and approval of the agreed key deliverables set out under the Mode of Payment section. Annual performance evaluation will take into account overall performance, including the quality and timeliness of deliverables, technical support provided, and progress against the agreed workplan.

11. Qualifications and Experience of the Consultant

The assignment requires the service of reputable individual consultant having the following qualifications and experience:

General qualifications for individual consultants

- a) At least Master's Degree in Water Resources Engineering, Hydrology, Environmental Engineering, or related field.
- b) At least 12 years of experience in undertaking Water Resources Management projects.
- c) Proven experience with international donor-funded programs (World Bank, AfDB, etc.).
- d) Demonstrated completion of at least three (3) comparable assignments as an individual consultant or team leader.
- e) Experience in national-level assignments. Must have participated in at least 1 assignment of a similar nature in Tanzania (mainland or Zanzibar)
- f) Competency in water resource management analytics (especially groundwater), capacity development, team building, policy analysis, reporting, and stakeholder engagement.
- g) Registered by the relevant registration and professional boards.
- h) Fluency in written and spoken English; working experience in Water Sector in Zanzibar and knowledge of Kiswahili is a strong advantage.

12. Mode of Payment

Payments shall be made on a milestone basis and will be linked exclusively to the submission, review, and approval of specific key deliverables. Monthly timesheets and monthly or quarterly progress updates may be required for contract management and performance monitoring purposes, but they shall not by themselves trigger payment. The payment schedule below sets out the agreed deliverables and the corresponding percentage of the contract amount payable upon approval of each deliverable. The Client reserves the right to withhold or defer payment if a deliverable is not submitted on time or is found to be unsatisfactory until the required revisions have been made and the deliverable has been approved.

No.	Type of Payment	Timeline	Deliverable
1	1 st Payment (10%)	At the end of the 1 st month	Upon submission and approval of the inception report
2	2 nd Payment (10%)	At the end of the 3 rd month	Upon submission and approval of the report for the 1 st quarter of Year 1.
3	3 rd Payment (10%)	At the end of the 6 th month	Upon submission and approval of the report for the 2 nd quarter of Year 1
4	4 th Payment (10%)	At the end of the 9 th month	Upon submission and approval of the report for the 3 rd quarter of Year 1
5	5 th Payment (15%)	At the end of the 12 th month	Upon submission and approval of the Mid-Term Report
6	6 th Payment (10%)	At the end of the 15 th month	Upon submission and approval of the report for the 1 st quarter of Year 2.
7	7 th Payment (10%)	At the end of the 18 th month	Upon submission and approval of the report for the 2 nd quarter of Year 2
8	8 th Payment (10%)	At the end of the 21 st month	Upon submission and approval of the report for the 3 rd quarter of Year 2
9	9 th Payment (15%)	At the end of the 24 th month	Upon submission and approval of the final report.

13. Work Program

The consultant shall ensure that there is a participatory process during the entire consulting period. The process shall include relevant stakeholders such as the Ministry of Water, Energy and Minerals, President's Office, Finance and Planning, Ministries, Departments Agencies (MDAs), Zanzibar Water Authority, Zanzibar Utilities Regulatory Authority, Research Institutes, Tanzania Meteorological Authority, Non-state Actors (CBOs, NGOs, professional bodies and other key stakeholders. It is anticipated that the process will serve as a capacity development for the government staff. The assignment will be implemented in phases:

- Phase 1 (0–6 months): diagnostics and baseline assessments

- Phase 2 (6–18 months): strategy development, capacity building, operational support
- Phase 3 (18–24 months): consolidation, handover, and final recommendations

14. Data Ownership and Continuity

All data, analyses, models, and reports produced under this assignment shall be the property of the Ministry of Water, Energy and Minerals. The Consultant shall ensure proper documentation and handover of data and tools to designated staff.

15. Assignment Duration

The assignment will be implemented for a period of 24 months. The Consultant is expected to commence services within fourteen (14) days from the date of contract signing.

16. Submission Address

During the entire period of the assignment, all the official reports and communications to the client shall be addressed to;

**The Principal Secretary,
Ministry of Water, Energy and Minerals
P.O.BOX 1569,**

Zanzibar.