TERMS OF REFERENCE

Senior Hydrogeology Consultant

Contract Duration – 22 Months Fixed Term

SADC GMI is established as a Section 21 Not-for-Profit Company under South African law, and it is a subsidiary structure of the SADC Secretariat. The vision of the SADC-GMI is to ensure the equitable and sustainable use and protection of groundwater, as well as being a Centre of Excellence in the areas of groundwater management and management of groundwater-dependent ecosystems in the region. The role of the SADC-GMI is to:

- Promote sustainable groundwater management and provide solutions to groundwater challenges in the SADC region through building capacity, providing training, advancing research, supporting infrastructure development, and enabling dialogue and exchange of groundwater information.
- Conduct and support the SADC Member States in groundwater research, and serve as a focal interlocutor with national, regional, and international groundwater initiatives.

The Global Water Partnership- Southern Africa (GWP-SA) partnered with the SADC-GMI to implement the Groundwater component of the Global Environmental Facility (GEF)-funded “Management of competing water uses and associated ecosystems in Pungwe, Buzi and Save (BUPUSA) basins” project that is being implemented by the International Union for Conservation of Nature (IUCN) and executed by Global Water Partnership (GWP-SA) together with the Government of Mozambique (GoM) and Government of Zimbabwe (GoZ). The project’s main objective is to strengthen the management of transboundary water resources and connected ecosystems for sustained ecological benefits and improved resilience for riparian communities. GWP-SA and SADC-GMI entered into a Grant Agreement to operationalise the implementation arrangements for groundwater-related work across all the project components.

These ToRs are for the position of a Senior Hydrogeology Consultant. This position is for an Individual Consultant who will work from their station with frequent travel to the SADC-GMI offices hosted by the Centre for Scientific and Industrial Research (CSIR) Campus, Pretoria, South Africa, as well as to the two BUPUSA riparian states of Mozambique and Zimbabwe.

The Senior Hydrogeology Consultant will liaise with the SADC-GMI Team Leader, and s/he will be responsible for data collection, conceptualization of the hydrogeology of the basin, planning and execution of the field work, contributing to e-flows assessment and modelling compilation of reports. He/She will be expected to make input into the Transboundary Diagnostics Analysis (TDA) and Joint Strategic Action Planning (JSAP) for the basin.
**Key Duties and Responsibilities**

The key duties and responsibilities will include the following:

1. Characterize the basin hydrogeology and identify hotspots and groundwater connections to terrestrial ecosystems.
2. Identify and assess transboundary basin management issues related to groundwater access and management.
3. Map groundwater dependent ecosystems (GDEs) in the 3 basins and analyse the influence of key groundwater parameters on groundwater dependent ecosystems.
4. Identify groundwater hotspots and prioritise areas for groundwater development for conjunctive groundwater and surface water management.
5. Attend and present at workshops organised by the SADC-GMI and the PIU.
6. Participate in the planning for and contribution to comprehensive e-flows assessment.
7. Participate in e-flows modelling exercise with e-flows expert and provide expert opinion on the flow and management driven Ecological condition of focus e-flow sites concerning groundwater dynamics, as informed by basin development and management scenarios posited by the two countries.
8. Provide Groundwater inputs to the undertaking of a TDA.
9. Contribute to developing SAP through stakeholder dialogues
10. Oversee and collaborate with the Hydrologist and the GIS and Remote Sensing Specialist to streamline their input.
11. Compilation of reports as scheduled in the project inception report.

**Expected Deliverables**

<table>
<thead>
<tr>
<th>Description</th>
<th>Level of Effort (Person-days)</th>
<th>Deadline Delivery Date</th>
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</thead>
<tbody>
<tr>
<td>Inception Report- Recommendations, work plan and budget for fieldwork for comprehensive e-flows assessment</td>
<td>10</td>
<td>20 July 2022</td>
</tr>
<tr>
<td>Technical Working Paper and Presentations on your preliminary findings for the hydrogeological characterization of the basin including identification of hotspots.</td>
<td>65</td>
<td>October 2022</td>
</tr>
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Specialist TDA report – Hydrogeology  
20  
September 2023

Specialist SAP report – Hydrogeology  
15  
January 2024

TOTAL LEVEL OF EFFORT  
150

NB: - The Consultant’s direct costs for work-related travel will be met by the client using the client’s standard policies for such travel. Payment of Professional fees will be based on deliverables as shown above.

Required Qualifications and Experience:

The successful candidate, who should be a SADC citizen having at least a master’s degree in hydrogeology/geohydrology, will have the following competencies:

1. Knowledge of key issues about the management of groundwater resources in national and transboundary aquifers of the SADC region.
2. Specific knowledge of recharge evaluations, pollution and impacts of climate change, groundwater-surface water interactions, e-flows and Groundwater Dependent Ecosystems.
3. Understanding of Modelling of water resources in an interdisciplinary setting
5. Demonstrated experience on at least 3 similar projects, 1 of which should have been in the SADC region either at the Member State or regional level
6. 10 years of working experience in the groundwater field, 5 of which should have been in the SADC region.
7. Fluency in English is mandatory, and working knowledge of Portuguese is desirable

Duration of Assignment

The successful Senior Hydrogeology Consultant will be offered a performance-based contract for a cumulative 150 person-days deployed over a period of 22 months.

Applications are invited from suitably qualified SADC region citizens to fill this position.

How to apply

To apply, please e-mail your application on or before 27 May 2022, before 12 midnight to: litlhare@sadc-gmi.org