

## **TERMS OF REFERENCE - JOB DESCRIPTION**

**Post Title:** Junior Specialist for Surface Water Management

**Programme Title:** Institutional Support Programme to the Palestinian Water Authority, **Funded**

**By:** The Austrian Development Agency "ADA"

**Duty Location:** Ramallah

**Programme Duration:** 36 Months

**Responsible to:** Programme Director

### **Programme Background:**

Under the Austrian Development Cooperation funded Institutional Support Programme (ISP), the Palestinian Water Authority intends to hire national senior specialists to provide additional human resources to PWA in critical areas and further develop the capacity of PWA staff and junior specialists to be hired under the ISP.

The Institutional Support Programme (ISP) will assist the Palestinian Water Authority (PWA) "to fulfill its functions as per the Water Law 2014 through strengthened and effective institutional capacities in the areas of strategic planning, policy formulation, coordination, monitoring, reporting, and resource mobilization" (outcome). Over three years the intervention will contribute to putting an "effective institutional framework in place for improving water security and sustainable management of water and wastewater services (SDG 6) in Palestine through a humanitarian-development-peace nexus approach (impact).

The program's key emphasis will be on enhancing human resources while also allocating resources for operational purposes, research, and the implementation of a Management Information System (MIS).

The water sector receives support from various donors to facilitate essential infrastructure developments, considering the diverse range of contributors involved. The programme will support further institutional development of the PWA.

### **Scope of Work:**

The overall objective of the junior specialist is to support ISP Output 4 – Strategic Planning and Monitoring, Output 4 combines support in strategic planning - ensuring the linkage and information flow from water resource monitoring to projects planning and aid coordination - with the development of IT capacities including a Management Information System (MIS). These could be treated as two independent outputs but were combined as they are both under the responsibility of the existing Administration for Strategic Planning.

Indeed, there is a close link between the strategic planning tasks and the management of the needed information. However, the design and usage of the MIS will not be limited to the Administration of Strategic Planning but will consider the information requirements of other administrations and units of PWA. As need for an MIS has been clearly confirmed during the preparatory consultations, its development is proposed as one of the activities under this output. Details on the scope, priority functionalities and implementation approach for the MIS are being assessed through a separate preparatory assignment.

The General Directorate of Strategic Planning is in the PWA-ISP focus, and capacity support to the Directorate will be implemented by employing one Specialist and two Junior Specialists.

This describes the requirements for the Specialist in surfacewater Management.

The Directorate reports directly to the Head of the Palestinian Water Authority. The General

Directorate is responsible for developing the water and geographic information system for the water sector and all information systems supporting the work of specialized departments in PWA, in addition to providing technical support in the field of maintaining operating software and information systems and providing appropriate networks for the work of organizational units. The Water Resources department is responsible for the development of groundwater and surface water by proposing development plans and policies and supporting partners and service providers to develop master schemes and plans for the development of water resources.

The junior specialist will report directly to the head of the directorate and the head of the directorate will report the Programme director, the junior specialist work closely in the unit and the entire project team while – with the support of the Organizational Development Advisor – applying a well-thought-through and systematic capacity development approach to the benefit of dedicated ISP specialists and PWA staff.

### **Duties and Responsibilities:**

The specialist will work closely with a senior Surface Molder at PWA, his responsibilities are to support the PWA Modelers in the following tasks (to be specified at the onset of the assignment and periodically reviewed and updated):

#### **1. Data Collection and Analysis**

- Collect and analyze hydrological, meteorological, topographical, and land-use data.
- Utilize remote sensing and satellite datasets (e.g., precipitation, evapotranspiration) for enhanced spatial and temporal analysis.
- Identify and address data gaps critical for accurate model development.

#### **2. Model Development and Application**

- Develop hydrological models using industry-standard software (e.g., HEC-HMS, SWAT, WMS).
- Simulate processes such as rainfall-runoff, and reservoir operations.
- Analyse specific applications, such as flood risk assessment, water allocation optimization, and watershed management.

#### **3. Model Calibration, Validation, and Updating**

- Calibrate models using observed streamflow, rainfall, and other hydrological data.
- Validate models against independent datasets and ensure reliability.
- Continuously update models with new monitoring data, infrastructure developments, and land-use changes.
- Document model assumptions, methodologies, and updates to ensure reproducibility and transparency.

#### **4. Scenario Analysis and Impact Assessment**

- Evaluate the impacts of climate change, land-use changes, and water infrastructure developments on surface water systems.
- Assess water availability, flood risks, and seasonal variability under different scenarios.
- Provide recommendations for sustainable water allocation and risk mitigation.

## 5. Reporting and Capacity Building

- Prepare technical reports and visualizations to communicate findings effectively.
- Conduct training sessions or workshops for stakeholders on surface water modeling and interpretation of results.

### **Experience & Qualifications:**

- Minimum academic qualification: Bachelors' Degree in in Hydrogeology, Hydrology, Environmental Engineering, or a related field.
- Master degree is preferable.
- 2 years' experience working in a relevant position for BSc candidates, fresh Master Degree is acceptable.
- Experience in groundwater modeling and software tools (e.g., (e.g., HEC-HMS, SWAT, WMS, or similar).
- Strong expertise in data management, GIS, and visualization tools (e.g., ArcGIS, QGIS).
- Knowledge of integrating climate models or projections into surfacewater modeling.
- Demonstrated ability to update and maintain dynamic models for long-term applications.
- Strong communication skills, with experience in stakeholder engagement and technical training.
- Excellent writing and oral communication skills.
- Excellent command of MS Office and ability to create well-formatted, edited and visually appealing graphs, documents and tables.
- Experience and ability in meeting and workshop facilitation and documentation.
- Excellent command of English language (written and verbal).