



TERMS OF REFERENCE FOR PROJECT HYDROLOGIST H2020 PROJECT (DOWN2EARTH)

1. Background

The IGAD Climate Prediction and Applications Centre (ICPAC) is a specialized Institution of the Inter-Governmental Authority on Development (IGAD). The mission of ICPAC is to foster climate services and knowledge to enhance community resilience for prosperity in the Greater Horn of Africa.

Regional decline in rainfall trends, increase in droughts and floods has been attributed to the change in climate. The frequency and magnitude of droughts are projected to be more severe in the coming decades. These projections present major humanitarian challenges in the Horn of Africa Drylands (HAD), especially in communities where socio-economic livelihoods are tied to the consistency of seasonal rainfall, yet there is limited capacity to quantify how future climate change will impact water scarcity and the sustainability of agro-pastoral livelihoods, water management, and food security.

The **DOWN2EARTH** project envisages addressing the multi-faceted challenges of water scarcity and food insecurity under climate change in the Horn of Africa Drylands, by facilitating community-centered adaptation and resilience to climate change impacts. It will use a multidisciplinary, inclusive approach, bringing together local communities, academic experts, novel decision-support tools, multi-level governance structures, regional climate centers, and NGOs.

2. Objectives of the project

- i. Develop understanding of human behavior with respect to climate in Agro-pastoralist communities.
- ii. Identify existing water management and food security policies and their efficacy in HAD
- iii. Analyze historical trends in regional climatic and hydrologic data and land use within HAD
- iv. Assess historical socio-economic/land use trends and their interaction with the water cycle within HAD
- v. Develop regional model to assess climate impacts on water and food over various planning horizons in the HAD
- vi. Improve regional seasonal forecasts to support warning systems on food security and water resources
- vii. Simulate impacts of future climate change scenarios on water scarcity and food insecurity

3. Responsibilities

The incumbent will work on the surface and sub-surface water modelling of the HAD region under the overall guidance of the project Principal Investigator (PI) and any other project with hydrological components at ICPAC.

(a) Programme technical support

- (i) Participate in the conceptualization and development of tools and platforms for communities of users on drought forecasting; and support the formulation of strategies for

assessing hydrological capabilities of Meteorological and Hydrological Services (MHS), as required by ICPAC and undertake hydrological simulation using project recommended hydrological models.

(ii) Support the development of operational systems for hydrometry and water monitoring as well as innovative approaches to hydrological data management and exchange.

(iii) Provide backstopping for the implementation of a system capable of indicating the current and future hydrological status of the HAD region and assessing its variability from short-term to seasonal time-scale;

(b) Project implementation support

(i) Plan and manage project activities on a day-to-day basis, to support implementation at the regional level

(ii) Ensure timely and on-budget delivery of planned project components, monitoring and reporting on the progress of implementation, and liaising with the relevant focal points from the regional and/or national implementation and execution partners

(iii) Liaise with appropriate IGAD departments and units to obtain relevant inputs during project design and implementation as requested by the project.

(iv) Coordinate communication with all project partners, relevant stakeholders, and financing partners.

(v) Provide inputs to the detailed Monitoring and Evaluation Framework developed jointly by project partners.

(vi) Assist in the preparation of relevant documentation for the ICPAC Project Management Board (IPMB);

(c) Carry out other relevant duties as required by PI and the Director of ICPAC

4. Language skills

Excellent knowledge of English and working knowledge of French would be added advantage.

5. Functional responsibilities

The project hydrologist will be reporting to the Director of ICPAC.

6. Qualification and experience

Education

A bachelor's degree in hydrology, water resources management or a closely related field and Master's degree or equivalent in hydrology or water resources management. A PhD would be added advantage.

Experience

At least seven years of experience in operational hydrology, hydrological modelling, water-related disaster risk reduction (DRR), water resources management, and use of hydrological and hydro-climatic modeling and information in decision-making.

Experience in monitoring of the sub-surface water monitoring. Knowledge on groundwater monitoring using of Gravity Recovery and Climate Experiment (GRACE) observations is required.

Experience in GIS and Remote sensing technique is a requirement. Knowledge of global land use and land cover classification would be an added advantage.

Experience in writing project proposals and implementing project capacity development activities, particularly in HAD countries, including logistical and organizational aspects.

Good understanding of the mechanisms of funding agencies would be an asset.

7. Work station

ICPAC Headquarters is within the Nairobi Metropolitan Area, Kenya. Missions to IGAD member states might be necessary.

8. Remuneration

Negotiable within the IGAD salary scale and policy which is attractive based on the applicant qualifications and experience.

9. Contract Duration

The position will be for three years with a possibility of renewable subject to performance and availability of funds.

10. How to Apply

All applications must be received in email (Hard copies will not be accepted) with subject line "Application for Down-2-Earth Hydrologist". Applications should be received by close of business on 25th October 2020. Include Cover Letter, detailed Curriculum Vitae and Scanned Copies of Certificates to the following Address: recruitment@igad.int copy to recruitments@ICPAC.net