

Terms of Reference (ToR)

A Consultant for Setting up pilot demonstration site as well as Training on Flooding Forecasting and Risk Management

1. Introduction and background to the Flood Forecasting and Risk Management Training Workshop

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. Hydro-meteorological hazards account for over 90% of disasters of natural origin in Eastern Africa region, impacting most socio-economic sectors and nearly every country. These hazards have several unique characteristics, including being recurrent and trans-boundary in nature; hence regional impacts. They are caused or aggravated by climate and therefore are highly sensitive to climate variability and change.

The Satellite and Weather Information for Disaster Resilience in Eastern Africa (SAWIDREA) project component has been prepared with a regional wide coverage to provide the National Meteorological and Hydrological Services with relevant data and numerical prediction capability to facilitate provision of severe weather early warning in order to meet the needs of Disaster Risk Management. It will contribute to improved livelihood in the region through reduction of risks related to severe weather in building resilience and adaptation capacity of the communities. It is funded by African Development Bank within the framework of Climdev-Africa Special Fund (CDSF).

One of the objectives of the SAWIDREA Project is to demonstration on the use of severe weather forecasts in risk management (e.g., flood prevention) and upscale the use of lesson learned in the IGAD region. The expected outcome is demonstrated benefit of use of severe weather forecast for flood Early Warning and risk management.

The foreseen activities include the following:

- Selection of a pilot demonstration site in a flood prone area in Somalia;
- Installation of hydro-met stations for pilot site to test relevance of severe weather forecasts in flood forecasting
- Develop a pilot site to demonstrate flood risk management using severe weather forecast

There is need to set up pilot site in Somalia to demonstrate flood risk management using severe weather forecast and to train experts from the Member States. ICPAC would therefore wish to hire a consultant to help in setting up the pilot site and train hydrological experts from the region.

2. Objective

The main objective is to set up pilot demonstration site and train experts on site and from the Member States on use of severe weather in flood forecasting and management.

Specific Objectives of the Consultancy

- I. Set up pilot site to demonstrate flood forecasting and risk management;
- II. Training of hydrological experts from Somalia on data acquisition and processing;
- III. Training of hydrological from Somalia experts on rainfall runoff modelling;
- IV. Training of hydrological experts from Member States on flood forecasting and risk management;
- V. Assist (and visit where necessary) the participating countries to use the outputs from the flood forecasting system at ICPAC

3. Tasks and Deliverables

The following tasks are outlined to be delivered under this Terms of Reference:

- a. Set up pilot site in collaboration with national focal point in Somalia with assistance of ICPAC;
- b. In consultation with other trainers, prepare an outline of a training schedule (training modules, case studies, audio-visual materials, etc.) for the training, adapted to the IGAD Region, and tailored to demonstrate use of severe weather forecast in flood early warning and risk management.
- c. Carryout the actual training sessions;
- d. Prepare and submit a report of the training within a week after the completion of the trainings.

4. Minimum Qualifications, Experience, Key Skills and Competencies

- Msc.Degree in Hydrology, Water Resources or other related fields
- At least Ten (10) years of working experience in hydrological or water resources modelling
- Good knowledge of computer applications in hydrology and water resources

- Skills in flood forecasting software particularly Mike Flood & Mike Hydro
- Good communication skills both oral and written
- Ability to prepare written reports in a clear, concise and meaningful manner
- Fluency in English
- Knowledge of French is an advantage

5. Duration

The duration for this assignment is for **40 man days** spread over a period not exceeding 3 months comprising of 6 days for developing training modules and materials, 10 days conducting the training sessions, 4 days for preparation and report writing and 20 days assisting countries to adopt flood forecasting and risk management.

6. Consultant Fees and Schedule of Payment:

The consultant will be paid lump-sum of USD 20,000.00 (Twenty Thousand US Dollars) for the engagement. Economy class return air-tickets and DSA at the IGAD official rate will be offered during the travels to the member states and training venue. The fees due to the consultant will be paid in three installments as follows:

- i. 20% after setting up demonstration site system and submission satisfactory report;
- ii. 40% after developing training modules, providing trainings and submission of training reports;
- iii. 40% after completion of support to countries and submission of acceptable report.