

Terms of Reference

Title of Post: Research Associate
Type of Contract: Full Time
Location: SOHAM-Nepal Office

Tenure of engagement: Starting October 2017. Duration of initial contract: 1 year.
Expected duration of assignment: up to 4 years (based on performance)

Remuneration: Negotiation within available budget allocated

Last date of receipt of application: 13 October 2017

General Information

Society of Hydrologists and Meteorologists - Nepal (SOHAM-Nepal) is a Professional Society, registered in District Administration Office, Kathmandu in 2002. The society has been working on the issues of hydrology and meteorology since its establishment. The society is dedicated to supporting and enhancing the professionalism of the hydrologists and meteorologists.

The terms of reference refer to the project "Citizen science for landslide risk reduction and disaster resilience building in mountain regions (Landslide EVO)" under the Science for Humanitarian Emergencies and Resilience (SHEAR) Programme, funded by the UK's Department for International Development (DFID) and Natural Environment Research Council (NERC) and, awarded to a research consortium led by Imperial College London, UK, in which the Society of Hydrologists and Meteorologists, based in Nepal (SOHAM – Nepal) is one of the partners.

The terms of reference aim at providing further details on the activities to be carried out by the Researcher within the context of the project.

General Jobs

- Assist and support implementation and management of project activities in the Landslide_EVO project
- Undertake consultation with different stakeholders representing government and non-government organization as per requirement of project
- Provide substantive supports to consultative and other meetings, workshops, in identifying participants and their confirmation
- Undertake activities as suggested by Investigators /or with consultation with them under related thematic areas identified/desired by the project

Specific Jobs

- Review, analyze and synthesize theme related academic and grey literatures.
- Implement precipitation and river flow monitoring networks as required by the project, and to be optimally complementary to that of DHM.

- Participatory monitoring of hydrological and meteorological data by using cost-effective sensors
- Assessing the capacity of community-based monitoring for spatial mapping and forecasting of extreme precipitation to calibrate and downscale satellite products under the guidance of Imperial College.
- Work on rain gauge and Satellite data merging algorithm developed by the Imperial College London and hydro-meteorological modelling with the following products:
 - a) High-resolution gridded time series and extreme quantiles of rainfall intensities for detecting landslide-prone precipitation conditions.
 - b) Historic reconstruction and future prediction of river flows by routing the gridded time series through a rainfall-runoff model of the Karnali River basin.
 - c) Improved gridded precipitation products for near-real time river flow forecasting, Hydro-meteorological forecasting and prediction to be built upon existing community based early warning systems in the Karnali River basin.
 - d) Assimilate the real-time monitoring data and assist in the implementation of nowcasting and short-term forecasting of precipitation and streamflow based the near real time merged precipitation products.
- Develop forecast summaries and dissemination to media.

Basic degree requirement:

- M. Sc. or equivalent degree in Meteorology or Hydrology or Glaciology or Water Resources Engineering

Basic skill requirement:

- Proficiency in computer skills with GIS and Remote Sensing Techniques;
- Rainfall estimation using satellite data;
- Knowledge of Numerical Weather Prediction;
- At least 2 years professional experience in the government or non-government institutions. Sufficient working experience in dealing with national or international partners, government offices, line agencies up to local community levels. Working experience in the flood and landslide disasters and related cross-cutting issues;
- Excellent written and spoken in English and Nepali, and report writing skills

Age: below 45 years

Working area: Karnali and Mahakali River basins of Nepal; 50 percent of time has to spend in the field

Period: Initially one year and can be extended

Date of joining: 25 October 2017

Selection process:

The cover letter and resume of candidates with names of three referees that meet the specific requirements will be reviewed and assessed by a selection committee. After evaluating each application, shortlisted candidates will be called for written exam and interview.