

## TERMS OF REFERENCE

**Project** : Reduction of Landslide Vulnerability by Mitigation Measures Project (RLVMMP)

**Position** : Hydrologist (01 No)

**Funds** : Loan No – L0124A, Asian Infrastructure Investment Bank (AIIB)

### **Objective and Purpose of the Assignment**

The RLVMMP aims to reduce landslide risk and severity, minimizing loss of life and economic damage. The project, initiated in 2019 and set to be completed in June 2027, consists of four components and 127 landslide-prone locations. The total cost is USD 101.3 million, funded by the Asian Infrastructure Investment Bank and the Sri Lankan government.

The Hydrologist will play a critical role in the RLVMMP by providing expertise in hydrological analysis, ensuring proper design and implementation of water management measures. The position is essential for assessing and mitigating water-related risks, including surface and subsurface drainage, at landslide-prone project sites, to enhance project sustainability and minimize environmental impact. He will work at the PMU office, which is situated at the NBRO Head Office in Colombo 05.

### **Scope of Work**

The Hydrologist will be responsible for conducting comprehensive hydrological studies and assessing drainage systems to ensure the integration of effective water management practices into the project. Key responsibilities include analyzing rainfall patterns, runoff, infiltration rates, and groundwater flow at project sites, as well as evaluating historical and current hydrological data to identify trends and potential risks contributing to landslides. The Hydrologist will design and optimize surface and subsurface drainage systems to control water flow, minimize landslide risks, and ensure compliance with international and local standards. They will monitor the implementation of these systems, validating contractors' drainage plans and specifications.

The role also involves developing climate and hydrological models to predict the impact of extreme weather events on hydrological systems and proposing mitigation strategies for climate change effects. Collaboration is crucial, as the Hydrologist will work closely with the Project Management Unit (PMU) Snr. Geotechnical Engineers, Snr. Geologists, Geotechnical Engineers and Environmental Specialists to incorporate hydrological insights into project planning and execution.

## TERMS OF REFERENCE

They will provide technical guidance to contractors, participate in site inspections, and address water management concerns during regular meetings.

Additionally, the Hydrologist will prepare detailed reports on hydrological assessments, drainage designs, and monitoring findings. They will also conduct training sessions for project staff and contractors on best practices in hydrology and water management. In addressing any water-related grievances raised by stakeholders, the Hydrologist will contribute to maintaining project transparency and efficiency while ensuring compliance with environmental and safety standards.

### **Minimum Qualification Requirement**

A Bachelor's degree in Engineering,

**With**

Masters in Hydrology/Hydraulics/Water Resources Engineering field.

The expert must have a minimum of 10 years of experience in the civil construction industry, with at least 5 years of experience in hydrological assessments, modelling, and water management, preferably in projects addressing landslide-prone or disaster risk areas, slope stabilization, drainage design, and flood risk mitigation. Familiarity with climate change impacts on hydrological systems and their role in exacerbating landslide risks and experience in designing and implementing drainage and water control systems. Experience working on projects funded by multilateral development agencies such as the AIIB, ADB, or WB is highly desirable.

The Hydrologist must demonstrate proficiency in hydrological modelling software and tools, as well as excellent skills in data analysis and reporting. Strong verbal, written, and presentation skills in English are required, with knowledge of local languages being an advantage. Experience in working in regions with similar geographical, topographical, and climatic conditions is preferable.

### **Period and Places of the Assignment**

Period : 10 Months with probable extension

Duty Station : PMU office- Colombo 05