

Scope of Work

Landslide Early Warning System

Managing Risk through Economic Development, Mercy Corps Nepal

1. Background

Mercy Corps Nepal is implementing DRR programs since 2007 in Nepal. One of the major learning of traditional DRR approaches was that they have proven effective at saving lives, but are less effective at mitigating economic impact of disasters and are rarely tied to strategies to build economic security and increase incomes. Mercy Corps has commenced implementation of an innovative 3-year program titled the “Managing Risks through Economic Development –Phase II” (M-RED -II) in Nepal as a continuation of MRED program. The Margaret A. Cargill Philanthropies funds the program, which will work to scale up and replicate an effective and sustainable model for DRR in vulnerable communities of Nepal, providing 4000 households with a more sustainable approach that links DRR to economic security. M-RED will continue with the model that addresses risk reduction together with economic development to promote economic security.

The M-RED program will achieve three outcomes:

- a) Strengthened Disaster Preparedness and Response Systems for Protecting and Saving Lives and Property.
- b) Beneficiaries’ livelihoods are more resilient to ecological hazards and/or results of climate change.
- c) Produce and disseminate research and learning for expanded impact of integrated approaches to building resilience to natural hazards and climate change.

MRED has been continuously trying to involve multiple level of stakeholders to bring about local innovative solutions and build capacity of those stakeholders in the process. It has always encourage local innovations and solutions to solve the existing problems within the communities.

Chaud Landslide just opposite to the Simar community is separated by the Chaulani (Chameliya) River. The crack was observed 5-6 yrs back on the hill when heavy rainfall occurred whole night but the actually landmass slide occurred next morning with clear sky. The fissures seems to have been slowly growing in size and dip fissures have formed as observed from the community in Simar, the cracks have become more visible and could potential fall blocking the Chaulani River. The landmass above the fissure seem to be stable and no visible sliding of available structures is observed. The landmass below the fissures shows deep depressions creating greater gaps between upper and lower landmass.

The fissure is growing and has potential for LDOF affecting community. There is a need and potential of establishing landslide EWS.

2. Objectives

The objectives of the project is to develop and establish landslide early warning system at community level.

The specific objectives of the project are as follows:

1. A system to detect the landslide
2. Portal to observe the reading from system

3. Project Area

Chaud Landslide is just opposite to the Similar community separated by the Chaulani (Chameliya) River. The Chaud landslide lies in the Darchula District.

4. Activities and Time Frame:

Roles/Activities	Timeframe
Estimated Award date	Jan 21, 2019
Completion of Installation of the system and completion letter/notice	Feb 28, 2019

5. Deliverables

- Working Landslide EWS
- The system must consists of telemetric gauge sensors
 - Rain Gauge with accuracy greater or equal to +/-3%
 - Soil Sensor (which measures dielectric constant, soil moisture, conductivity and temperature of soil)
 - Include built in system for energy source not requiring any external power source
 - Include data transmission charges included for 3 years
 - Including data observation web portal

6. Eligibility Criteria

- The organization has to have experience on the landslide EWS related work.
- Should have experience in establishment and installation of similar system.
- Working experience with Department of Hydrology and Meteorology.

7. Duration

- This contract will be effective from the date of signing and will remain valid for a year following the completion of system installation to monitor the performance of the landslide EWS and data transmission for 1 year.
- Ensure and monitor data transmission for the further period of 2 years.
- Total duration 3 years.

8. Selection Criteria

- The organization has to have at least 5 years of experience on the landslide EWS related work.
- Should have minimum 5 years of experience in establishment and installation of similar system.
- At least 5 years working experience with Department of Hydrology and Meteorology.