

Pakistan Floods Emergency Response Plan (August 2010 - July 2011)

Appealing Agency	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO)
Project Title	Identification of Hazardous Environmental (Landslides) Risks to Guide Community Recovery
Project Code	PKA-FL-10/ER/34539/R
Sector/Cluster	COMMUNITY RESTORATION
Objectives	Lessening of hazardous environmental and disaster risks by assessing the geological stability and evaluating the landslide risk in the areas affected by floods, adjacent areas selected for relocation of affected communities, and major transportation corridors providing lifeline support to affected communities. Update the necessary policy guidelines for better awareness and communication of landslide risk
Beneficiaries	Total: 5,000,000 People living at mountainous and seismically active northern region of Pakistan in the Gilgit Baltistan and Khyber Pakhtunkhwa Provinces Women: 2,550,000
Implementing Partners	UNDP, FFC, Geological Survey of Pakistan, Pakistan Metrological Department, SUPRACO, National Disaster Management Authority
Project Duration	Aug 2010 - Jul 2011
Current Funds Requested	\$1,100,000.00
Location	MULTIPLE PROVINCES
Priority	EARLY RECOVERY

Needs

As a result of disastrous flooding, large groups of the population in the flood affected areas are at risk of landslide hazards. In the northern part of the country, landslides have already occurred and are currently blocking major transportation routes for the evacuation of affected populations and the delivery of international aid including food, water, and temporary shelter. These landslides can be readily observed using existing remote sensed images from the international community, as are currently being provided by UNOSAT for example, to plan alternate itineraries. Through remote sensing, geological mapping and geotechnical field work, it is possible to identify areas at risk of future landslides. Improved communication between local and international experts, aid agencies and the local government could ensure that the information gained from these techniques could be appropriately applied to avoid these risks.

A recent UNESCO Science Flood Emergency Mission to Pakistan worked in very close cooperation with key stakeholders in flood and emergency management in Pakistan to identify immediate short-term priorities to support safe and effective community recovery. Landslide hazards in flood-affected areas and in adjacent relocation and transportation corridors were identified as a major risk to safe and effective recovery. The mission also identified linking hydrogeological models to mapping techniques as an important element of the process.

Therefore, rapid geological risk mapping should be undertaken to ensure that the areas where people are relocated, along with flood affected areas and remaining and alternate transportation networks are stable and not prone to ground instability or landslides. Additionally, policy guidelines are needed to insure that this information reaches the appropriate responders.

The project will have a participatory approach and will be addressing the needs of the whole spectrum of affected population (including vulnerable segments)

Activities

1. Landslide risk identification and vulnerability mapping, this includes:

- Initial planning workshop consisting of local and international experts to conduct an existing skills assessment of local experts, identify relevant international partners, and develop a plan of action to assess the situation and produce landslide risk maps.
- Satellite imagery and processing will be produced for verification and geotechnical ground-truthing in partnership between UNESCO-affiliated international experts and local technical experts, with hands-on training provided as necessary.
- Landslide risk maps and relevant geodatabases for sustained updating of maps will be produced including historic landslides, current ground instability, soil, geomorphology, satellite imagery showing vegetation, flood levels and

logistical planning map layers with such data as roads, bridges, buildings and other infrastructure.

- Completion workshop to report back on the process and establish a system for keeping the database updated for future events.

2. Support integrated hydrogeology modelling through convening technical workshops of local experts from geology and hydrology fields to inform landslide risk mapping.

3. Update Policy Guidelines for dealing with geohazards triggered by landslides incorporating the perspectives and needs of the Geological Survey of Pakistan, other local scientific institutions, aid agencies, local government, and international experts. These policy guidelines should include a targeted communication plan to inform end users including affected populations of risk in a timely and responsible manner using appropriate technology.

Outcomes

1. Rapid community mapping on geohazards completed
2. Updated vulnerability maps of landslide risk to guide community recovery produced and disseminated.
3. Local experts equipped with tools and networks to maintain the necessary geodatabase on landslide risk and provide appropriate landslide risk maps for emergency response and public awareness.
4. Improved inter-agency work in integrated hydrogeology by Pakistani experts.
5. Updated policy guidelines for dealing with geohazards triggered by landslides including a communication plan

Furthermore, in cooperation with the implementing partners, links will be made to ensure that the results of the aforementioned efforts will trickle down to the communities so that the lives of all residents of the affected areas will benefit from UNESCO's intervention. The Planning process will also be informed by this exercise in order to avoid the settling of population in the future in areas where the probability of a geohazard event is high.

United Nations Educational, Scientific and Cultural Organization	
Original BUDGET items	\$
Total	0

United Nations Educational, Scientific and Cultural Organization	
Current BUDGET items	\$
Staff	290,000
Travel	200,000
Input	530,000
Administration	80,000
Total	1,100,000