

Nepal Hazard Risk Assessment

Trimester Report

Period August 2009 – October 2009



Preamble

The Asian Disaster Preparedness Center (ADPC), in collaboration with Norwegian Geotechnical Institute (NGI) and Center for International Studies and Cooperation (CESI) Nepal has been awarded to deliver Consulting Services for the study of “Nepal Hazard Risk Assessment” (NHRA) under F058204 - GFDRR. The project is under aegis of the Ministry of Home Affairs – Government of Nepal and supported by the World Bank. Aims of the project include: to develop a synthesis report of Nepal’s major hazard risks at the national and sub-national levels; present an overview of vulnerability assessment for the country; and develop detailed economic analysis using loss probability modeling of the country’s risks. This trimester report is submitted by ADPC to the World Bank to highlight the issues and progress in the project execution as a part of the project deliverables.

ACTIVITIES CARRIED OUT

1. Meeting with Project Partners

Initial meeting was held with project partners, Center for International Studies and Cooperation (CECI), Nepal on August 2009 in Kathmandu. Further meeting was held with the World Bank to brief about the project planning strategy. Since the Ministry of Home Affairs, Government of Nepal is focal agency of disaster management in Nepal, ADPC along with CECI and the World Bank briefed about the project. In view of importance of national hazard and risk assessment, the ministry agreed to provide all necessary support in technical and administrative aspects of project implementation.

2. Meeting with Stakeholders

Before commencement of the project, the formal meeting was held with several line ministries, departments and agencies for technical and administrative collaboration. In First Trimester, the project team visited and briefed about the project to focal officers of Ministry of Home Affairs, Ministry of Physical Planning & Works, Ministry of Water Resources, Department of Water Induced Disaster Prevention (DWIDP), Department of Mines and Geology (DMG), Department of Hydrology and Meteorology (DHM), Department of Survey (DOS), Department of Irrigation (DOI), Department of Health Services (DHS) - Division of Epidemiology and Disease Control, Department of Agriculture, Ministry of

Industry Commerce & Supplies and Ministry of Information & Communications. The team explored for availability of data and technical know-how about the hazard and risk assessment.

3. Courtesy Visit to the Prime Minister of Nepal

ADPC Chairman, Prof. Krasae Chanawongse; ADPC Executive Director, Dr. Bhichit Rattakul; ADPC Director, Mr. NMSI Arambepola; NGI ICG Deputy Director, Mr. Bjorn Kalsnes; CECI Regional Director, Ms. Kathleen Mclaughin; and NHRA project team members paid a courtesy visit to His Excellency Mr. Madhav Kumar Nepal, the Prime Minister of Nepal on 11 September 2009.



Figure 1 - Courtesy visit of ADPC Chairman and NHRA project team to the Prime Minister of Nepal

The NHRA delegation was received by the Prime Minister in his office in Kathmandu. In this visit, the Prime Minister kindly conveyed his support and valuable guidance to the NHRA project team for the project execution.

4. Inception Report

In view of project proposal, discussion with project partners and nodal and focal agencies for various aspects of hazard and risk assessment, the inception report was prepared. The inception report comprises seven chapters including introduction and background of the project, project objectives and statement of work, proposed methodology, data needs, general approach for project implementation and work plan. This inception report was reviewed by the partners and nodal agencies. It was submitted to the World Bank and the Ministry of Home Affairs for reference and necessary actions.

5. Advisory Committee Meeting

Ministry of Home Affairs (MOHA) is the focal agency for disaster management activities. Continuing with the efforts, MOHA would like to support activities for development of comprehensive hazard, vulnerability and risk assessment of the country and assess the economic impact on various vital infrastructures. MOHA has constituted an advisory committee paneling chief technical experts from Department of Mines and Geology, Water Induced Disaster Prevention, Hydrology and Meteorology, Department of Health Services, Department of Agriculture, World Bank and National Planning Commission. The advisory committee is headed by the Secretary of the Ministry of Home Affairs, Dr. Govind Kusum.



Figure 2 - Dr. Govind Kusum, Secretary of MOHA, chairing the Advicory Committee meeting

The first Advisory Committee meeting was held on 10 September 2009 in the MOHA office, attended by representatives of the Advisory Committee, ADPC, NGI, and CESI. The meeting aimed to:

- Advise and provide guidance on methodology and process of NHRA project.
- Facilitate flow of information required for the comprehensive study by the government agencies.
- Periodical review and monitor progress of the study project.
- Provide brief and update by the project team, as and when required.
- Help in project implementation and follow up action in risk reduction in Nepal.

6. Stakeholder Meeting

The NHRA project is carried out in close association with the Ministry of Home Affairs, Department of Geology and Mines, Department of Water Induced Disaster prevention, Department of Hydrology and Meteorology, Department of Health Services, etc. Close linkages with other departments/government and non-government agencies will be ensured through ongoing partnership arrangements. Previous experience in working with those organizations is expected to facilitate secondary data collection, hazard specific information exchange and sharing of any other data relevant to the study. The efforts are made to develop ownership from the beginning of the project through involvement of those stakeholders.



Figure 3 – Group photo during the first stakeholder meeting

The first stakeholder workshop was conducted on 13 September 2009 in Hotel Everest, Kathmandu, with following objectives:

- To brief the focal stakeholders about the project objectives, methodology/process, and outcome.
- To assess the status and availability of data for hazard, vulnerability and risk assessment.
- To assess the way of application of the project outcomes with various stakeholders.
- To forge potential collaboration in carrying out the study.
- To identify focal person from each department/agency/ministry to support or collaborate for future support and cooperation.

Senior officials from relevant government agencies, NGO, and the World Bank participated and provided their inputs in the workshop.



Figure 4 – Group discussion and facilitation during the stakeholder workshop

The workshop concluded the following:

- It was found that most of the data related to floods, landslides, drought, epidemics and earthquake is available with various nodal departments. Departments have shown willingness to provide necessary support to share data for the study project.
- The methodology that will be used in the project has been reviewed by stakeholders. Further details will be provided to institutions at regular interval, as project outcome will be available.
- During the workshop, strong need was felt for initiating such project for hazard and risk assessment. The project outcome will be useful for sectoral long term planning and formulating disaster risk reduction strategy for safe and sustainable development.
- Almost all departments are ready to provide necessary administrative, technical and data compilation support for the project implementation.
- Each department has provided focal person responsible for the disaster risk reduction.

7. Catastrophe Modeling Workshop

NHRA project team of Urban Disaster Risk Management Team (UDRM) - ADPC conducted a training workshop on Catastrophe Modeling Approaches for Assessing Economic on 17 – 18 September 2009 at the Asian Institute of Technology Convention Center, Bangkok. Mr. NMSI Arambepola, UDRM Director, and 7 staffs of UDRM-ADPC participated in the workshop. Dr. Stefan Hochrainer and Dr. Reinhard Mechler from International Institute for Advanced System Analysis (IIASA), Vienna, were the resource persons. Dr. Stefan Hochrainer facilitated the two-day workshop.



Figure 5 – Dr. Stefan Hochrainer from IIASA facilitated the discussion in the Catastrophe Modeling

The workshop was aimed at:

- Familiarizing the participants with catastrophe modeling approaches, incl. a discussion of the basics of catastrophe modelling, direct vs. indirect risk assessment and risk management strategies on local, regional and country levels, especially for the context of Nepal.
- Enabling the participants to learn about the obstacles and difficulties in catastrophe modeling and how to avoid them. One focus will be on the CATSIM approach as well as understanding the framework and possible uses for the project. Furthermore, they will be trained with the help of a stand-alone software package.
- Providing participants with the necessary know-how to conduct similar analyses, which, supervised by IIASA, will feed into the economic risk assessment element of the Nepal Hazard Risk Assessment project.

Interesting topics covered in the workshop include:

- Risk assessment and statistical analysis of extremes.

- Economic risk assessment: macro, sectoral, and micro level.
- Risk modeling using CATSIM.
- Discussion of risk management options.
- Discussion of uncertainty and variability (climate change, exposure dynamics etc.).



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