



Government of Nepal
Ministry of Physical Planning and Works
Earthquake Risk Reduction and Recovery Preparedness
Programme for Nepal
(UNDP/ERRRP-Project: NEP/07/010)



Sensitization Report
on
"Earthquake Risk Reduction and Preparedness"
for
Architects, Engineers and Sub-Engineers
in
Biratnagar Sub Metropolitan City

(Dec 6, 2008)

Prepared By:
UNDP/ERRRP Project

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Executive Summary

Nepal is a disaster prone country due to its steep terrain, a rugged and fragile geomorphic condition, high peaks and slopes, volatile tectonic processes, variable climatic condition, very rural topography and other factors such as increasing population, poor economic condition, unplanned settlement, low literacy rate etc. Earthquake, floods, landslides, lightning often occur causing enormous physical damages and losses of human lives. Nepal is ranked 11th in terms of risk from earthquake according to global report on disaster risk as per 2003.

Earthquake Risk Reduction and Recovery Preparedness (ERRRP) program initiated by UNDP/BCPR (Bureau of Crisis Prevention and Recovery) with the support of government of Japan is a regional project. This being a National Implementation (NIM) project of UNDP, the implementation responsibility of the project will be with the Government of Nepal. Therefore, UNDP/ERRRP project, has, therefore been continuously strengthening the Earthquake Risk Reduction Management capacity of its selected municipalities of 5 development regions of Nepal since June 2008. It includes capacity building through training, sensitize people and giving awareness as well as establishing linkages with partners at different levels to maximize efforts to be prepared for and respond to disasters more effectively. The main goal is to reduce the impact of potential earthquakes on seismically vulnerable communities in Nepal.

Accordingly, with the joint effort of UNDP/ERRRP project, Biratnagar Sub-Metropolitan City, Nepal Engineers Association - Biratnagar regional center organised the half day sensitization training on earthquake risk reduction and preparedness for architects, engineers and sub engineers on December 6, 2008 in Biratnagar Sub Metropolitan City. The objective of the sensitization programme was done to sensitize all the engineers, architects and sub engineers of the Biratnagar regional center on Earthquake Risk Reduction and Preparedness. In this programme, sensitization on engineering aspects of earthquakes, implementation of National Building Code – lessons and way forward, professional ethics and the strategies to be adopted by the municipality for effective earthquake risk reduction were covered by the experts in the relevant fields.

1.0 Sensitization Outline

The Biratnagar Sub-Metropolitan City, United Nation Development Programme / Earthquake Risk Reduction and Recovery Preparedness Programme for Nepal and Nepal Engineers Association – Biratnagar Regional center jointly organized sensitization programme on

earthquake risk reduction and preparedness for architects, engineers, and sub engineers at Ratna Hotel in Biratnagar on Dec 6, 2008. UNDP/ERRRP Project has done the MOU with Nepal Engineers Association to organize this workshop. A total of seventy two (architects, engineers and sub engineers) participants from government and non-governmental organizations attended the workshop, 1 women and 71 men.

2.0 Objective and Purpose of the Workshop

The objective of the training programme is to sensitize the architects, engineers and sub engineers of Biratnagar Regional Center. The main objective of the program is to generate earthquake awareness among the people and the specific objectives are:

- To make the participants aware about the earthquake risks of Nepal.
- To give the participants basic know-how of earthquake preparedness i.e. what to do before, during and after an earthquake.
- To sensitize technical people on engineering aspects of earthquakes
- To get feedback about earthquake assessment through the local people and to know the local technology also.
- To discuss the issues related to implementation of National Building Code – lessons learned and way forward, local technology and professional ethics of technical persons.

The specific objective includes creating understanding on basic principles of strengthening the life of structural building and others.

3.0 Participants

The programme was attended by more than 72 people (urban planners, architects, engineers and sub engineers) from different administrative department, department of urban development and building construction, road department, sanitation department, telecommunication department, municipal officials, senior architects, engineers from consultant, lecturer, media persons & non government organizations. Out of which 1 is

female architect from DUDBC, Dhankuta. In covering the gender issues, Janjati participant = 20, Madhesi = 22, Bhramin = 20 and Dalit = 10 were attended in the program.

4.0 Time Duration

The duration of the training period was half day which started from 2 pm till 6:30 pm and held completely on Dec 6, 2008 at Ratna Hotel in Biratnagar Sub – Metropolitan City.

5.0 Workshop Methodology

5.1 Inaugural Session

Mr Kishore Thapa, Acting Secretary of WECS and Ex National Programme Director of UNDP/ERRRP Project, Mr Kishore Shakya, President, Nepal Engineers Association, Mr. Dilip Kumar Chapagain, Chief Executive Officer of BSMC, Mr Sashi Sekhar Shrestha, CDO of Morang, Mr. Amrit Man Tuladhar, Project Manager of UNDP/ERRRP Project, Ms. Chandra Laxmi Hada, Project Engineer / Training Coordinator of UNDP/ERRRP Project, Mr. Bharat Neupane, Engineer and Secretary of NEA Biratnagar regional center, Chatur Raj Prasai, Senior Divisional Engineer and Division Chief of Morang, Mr. Suraj Shrestha, Civil Engineer and Resource person from Dharan municipality, Engineers from Biratnagar Regional center attended the inaugural session and throughout the programme.

The programme started with a welcome address by the NEA president, Mr. Kishore Shakya, wherein he briefed about the importance of risk reduction measures to be taken up by the concerned authorities followed by Mr. Bharat Neupane who shared his experience of recent Koshi flood that swept the thousands of lives in despair. Ms. Chandra Laxmi Hada highlighted the objectives of the sensitization program and one need to sensitize of cause and effects of earthquakes. Mr Amrit Man Tuladhar gave the introduction and activities of ERRRP project. Mr. Dilip Kumar Chapagain expressed the need to have a hi-tech command & control system in line with other disaster prone countries like Japan for tackling the situation in an effective manner and for that one need to be aware of its effect. Mr. Sashi Sekhar Shrestha said that people have the knowledge to deal with hazards but that knowledge is incomplete and perhaps these kinds of sensitization programmes will help in disseminating the same. Mr. Kishore Thapa emphasized the need for adopting three tier approaches for disaster management i.e. pre-disaster preventive measures, during the disaster measures and

post disaster management plan so as to effectively deal with the situation in case of any eventuality in order to substantially reduce the damage caused to life & property. He even emphasized to implement the Building Code guidelines as a preparedness tool for disaster mitigation.

The inaugural session concluded with the vote of thanks by Ram Naresh Mahato, Vice president of Nepal Engineers Association

5.2 Technical Session / Presentations

The presentations were made by the resource persons on the following topics:

- Session Chair by Mr. Kishore Shakya, President –Nepal Engineers Association
- “Sensitization on Engineering Aspects of Earthquakes” by Mr. Suraj Shrestha, Civil Engineer, Dharan Municipality
- “Earthquake Risk reduction and Recovery Preparedness Programme for Nepal” by Mr. Amrit Man Tuladhar, National Project Manager, UNDP/ERRRRP Project
- “Implementation of National Building Code – Lessons and way Forward” by Mr. Kishore Thapa, Acting Secretary –WECS
- Floor Discussions and Closing of the session

6.0 Name of Resource Persons

- Mr. Kishore Thapa, Acting Secretary, WECS and Ex-National Programme Director of UNDP/ERRRP Project
- Mr. Amrit Man Tuladhar, National Project Manager, UNDP/ERRRP Project
- Mr. Suraj Shrestha, Civil Engineer – Dharan Municipality

7.0 Interactive Session

There was active interaction after the presentation sessions. The floor was opened for 20 minutes after the presentations for discussion. The answer to queries was given by the resource person themselves.

Following points were brought forward during the interactive session:

- While rating the program very informative the participants assured that they will share this information with others as well.
- Now they received knowledge on earthquake risk reduction and preparedness but suggested that
 - To cater awareness program on disasters like flood (giving example of Koshi flood)
 - This type of workshop shall be organized frequently for different focus group of people to get aware on effects of earthquake so as to reduce vulnerabilities of the people and life losses.
- For continuous functioning of all the buildings after a disaster, Mr. Thapa expressed the need to implement and enforced building code in each municipality and follows the guidelines. He expressed the need of retrofitting technique for old buildings which carry some socio-cultural values.

8.0 Execution Arrangements

Ministry of Home Affairs, Ministry of Physical Planning and Works, Ministry of Local development, UNDP/ERRRP project executed the programme in collaboration with Biratnagar Sub- Metropolitan City. Additionally, the UNDP/ERRRP Project will provide support to strengthen the institutional, administrative, technical system for earthquake

vulnerability reduction. The Municipality provides support for the successful implementation of the programme.

9.0 Output

- Awareness generation of the technical people.
- 72 architects, engineers and sub engineers of different organizations of Biratnagar Regional center have been sensitized on earthquake risk reduction and preparedness.
- Enhanced capacities of technical persons

10.0 Conclusion

Even though they are technical persons, they came to know about the preparedness tools related to non structural component also. During the presentations the need for adopting earthquake resistant technology was highlighted. Participants were provided with resource material and IEC material for reference.

In concluding session, Mr Kishore Shakya summed up all the presentation and highlighted that awareness for technical person is very important to reduce the vulnerabilities of the people. Ms. Chandra Laxmi Hada emphasized all new settlements or buildings must be constructed following the Nepal National Building Code and its Guidelines looking at the view of the high seismicity and expanding population in our Country. She thanked to resource persons, participants, NEA members, chief guest, BSMC and others for their support, coordination and good participation. At the end, Mr Shakya delivered vote of thanks and concluded the programme.

The total budget of the program is NRs.135, 060.00 (One Lakh Thirty Five Thousand and Sixty only) as indicated by the Admin Finance Associate of UNDP/ERRRP- Project.

Appendices

Appendix A: Name of Participants and their List

Date and Venue: Dec 6, 2008, Ratna Hotel

Biratnagar Sub Metropolitan City (BSMC)

Appendix B: Program Schedule of Sensitization Programme

Appendix C: Photographs

Appendix C-I: Inaugural and orientation to the objectives of the program





Appendix C-II: Paper Presentation by Resource Persons





Appendix C-III: Floor Discussions



Appendix C-IV: Valedictory Address





Appendix D: Resource Materials of Sensitization Program