

Earthquake Safety



भूकम्प प्रविधि

राष्ट्रिय समाज-नेपाल

NATIONAL SOCIETY FOR EARTHQUAKE TECHNOLOGY-NEPAL

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10th Earthquake Safety Day-2008



Year 2008 is the seventy fifth year of Great Nepal-Bihar Earthquake of 1934 (15 January 1934 A.D. or 2nd Magh 1990 in Bikram Sambat, the Nepali Calendar). The earthquake is one of the devastating earthquakes in the living memory of Nepalese people. More than eight thousand people lost their lives with massive destruction of property during the earthquake.

Each year, Nepal observes the National Earthquake Safety Day on January 15 or 16 (2nd of Magh as per Bikram Sambat) in commemoration of the devastating earthquake. In 1999, upon request from NSET, the Government of Nepal declared the day "2nd Magh" as the National Earthquake Safety Day (ESD) and since then Nepal has been observing the day with various awareness programs. Main objective of ESD is to create awareness and to share knowledge and information about safety measures and disaster risk

management. Typically, the ESD is the culmination of earthquake risk management works implemented in the country in the preceding 12 months, and it allows taking stock of the achievements and shortcomings during the whole year.

ESD programs are managed and organized in a collaborative manner by many organizations working in Disaster Risk Management field and under the leadership of Earthquake Safety Day National Committee (ESDNC), chaired by Hon. Minister for Home Affairs; the overall coordination and facilitation being done by NSET as Member Secretary of two sub-committees (Management Sub-committee and Information Campaign Sub-committee) formulated under the national committee.

This year, tenth National Earthquake Safety Day was observed throughout the country with various programs to create awareness among people on how to minimize risks during disasters. Apart from the regular activities some innovative initiatives were

included as a part of the ESD program. The message on earthquake response that is "Duck Cover and Hold" was disseminated throughout the country through various communication means (radio, television, pamphlets) and in addition to that, a national drill on "Duck, Cover and Hold" was carried out for 2 minutes at the exact time when Nepal was shaken by the 1934 earthquake followed by creating a "Human Chain" as a symbolic notion of the entire Nepali community to act jointly for disaster risk reduction and preparedness. An Earthquake Safety Logogram was also created this year to mark the 75th year of the 1934 Earthquake.

The main slogan this year was "Ensuring Safety of Health Institutions and Uninterrupted Services During Disasters". As in the previous years this year also various



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events were carried out in collaboration with Central Government, Local Government and other national and international institutions. Lalitpur was the focus this year and the 10th ESD kicked off with programs such as:

Basic Technical Training Course (BTT) on Earthquake-Resistant Construction of Buildings

NSET provided technical support to conduct the Basic Technical Training Course (BTT) on earthquake resistant construction for the engineers and junior engineers from all division of Department of Urban Development and Building Construction (DUDBC). The training program was organized by Building Technology Research and Training Centre, DUDBC, Hetauda at the Vector Borne Disease Research and Training Centre Hall, Hetauda. The 5 days training held from 1-5 January 2008 was participated by 30 engineers and junior engineers of DUDBC.

There is a great need to conduct training courses on earthquake-resistant construction for different target groups and for that there should be a group of considerable number of master instructors. Realizing the fact that, presently there exist a limited number of such master instructors, NSET and DUDBC decided to implement the master instructor development process. Basic Technical Training (BTT) Course is an initial training program for the master instructor development process as suggested by NSET and will be followed by number of other training courses.

The objectives of the BTT are to: make participants aware on the earthquake risk of Nepal and the region and realize that earthquakes are common in the region; help to realize the need of earthquake-resistant construction; enhance the knowledge and application skills on earthquake-resistant construction technology; make aware on possible options for repair and strengthening of earthquake damaged existing houses and help to understand basic considerations of training and acquire skills for delivering trainings to different target groups.

ESD Continued on page 5:

REGIONAL TRAINING PROGRAM

PEER Courses in the period

The Program for Enhancement of Emergency Response (PEER) implemented by NSET under a cooperative agreement with OFDA/USAID is conducting a number of training events in six

countries of the region (Bangladesh, India, Indonesia, Nepal, Pakistan and Philippines) to develop instructors for various emergency responder courses. Following events were organized during November 2007 to January 2008.

PEER EVENTS NOVEMBER 2007 - JANUARY 2008

Events	Event Level	Date
Nepal		
1. MFR	National	Jan 3 – 15, 2008
2. HOPE	National	Jan 8 – 11, 2008
Pakistan		
1. MFR	National	Dec 7 – 19, 2007
2. MFR	National	Jan 11 – 23, 2008
3. HOPE	National	Jan 24 – 27, 2008
Indonesia		
1. MFR	National	Jan 14 – 26, 2008
2. CSSR	National	Jan 30 – Feb7, 2008
Philippines		
1. MFR	National	Nov 5 – 17, 2007
2. CSSR	National	Nov 21 – 17, 2007
3. CSSR	National	Dec 6 – 13, 2007

HOPE- Hospital Preparedness for Emergencies
CSSR- Collapsed Structure Search and Rescue
MFR- Medical First Responder

RECENT PROGRAMS OF NSET

Preliminary Research on Earthquake Safety of Stone Masonry Buildings

NSET with support from Building Research Institute (BRI) is conducting a research on Earthquake Safety of Stone Masonry Buildings. The main research objectives are: Collection of findings on properties and performance of different stone masonry houses/elements; Identification of typical stone

masonry houses in Nepal and the region; Collection and analysis of existing guidelines, ongoing researches, references and information dissemination materials; Identification of research direction and needs to conduct further research.

Evaluation of the "Post Flood Shelter Restoration Project, Barmer

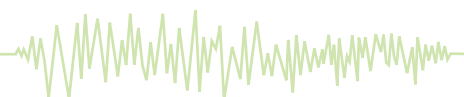
NSET provided consultant service for the evaluation of the ECHO Action in Rajasthan India i.e. "Post Flood Shelter Restoration Project, Barmer" in order to assess the impact of different actions implemented with the support of DG ECHO and to allow for recommendations on the future response strategy of DG ECHO in India. The specific objective of the program was to have an independent structured evaluation of the results of the action "Post Flood Shelter Restoration Project Barmer", implemented by Christian Aid and

Sustainable Environment and Ecological Development Society (SEEDS) in Barmer District Rajasthan, India. The evaluation was done to obtain an overall view of the DG ECHO funded action in Barmer District, Rajasthan showing its intervention logic and relation to the overall objectives of the DG ECHO, to assess the results and the means employed as compared to the objectives mentioned and to draw conclusions and make recommendations for future strategy and improvements in methodology.

Earthquake Vulnerability Reduction and Preparedness Program in Muzaffarabad and Mansehra Municipalities

NSET is working with United Nations Development Program (UNDP) Pakistan for providing technical support to National Disaster Management

Authority (NDMA) of the Islamic Republic of Pakistan under the project "Earthquake Vulnerability Reduction and Preparedness Program" in



Muzaffarabad and Mansehra Municipalities since November 2007.

The project aims at building institutional structures, policies, and systems to integrate earthquake vulnerability reduction in the two municipalities. The project employs a multi-pronged strategy which combines technical knowledge with hands on practical experiences in earthquake vulnerability reduction and preparedness, which cuts across other themes such as capacity building, establishing a knowledge-base for informed decision making, human resource development, practical demonstration for education, awareness, training, and dissemination of learning and experiences locally, nationally and regionally. The project is built around a partnership approach

where it brings together a range of different stakeholders like technical agencies, academic and research institutions, local governments, line agencies and civil society, while placing vulnerable communities in the middle, so as to demonstrate participation, partnership and use of local wisdom to promote context specific solutions to challenges posed to sustainable development, through a blend of structural and non-structural components of earthquake vulnerability reduction.

NSET's approach for the technical support is to transfer the technology on risk assessment, earthquake scenario development, action planning, demonstration projects, capacity building and training programs to project management team professionals

from Pakistan. Concept of tapering the NSET involvement as time line increase is adopted so that a core group of professionals are developed to conduct similar type of projects in other cities in Pakistan.

Currently vulnerability studies at individual buildings and infrastructures is in the process. Professors and students from different Universities in Pakistan are involved in the process and are carrying out the buildings inventory survey after training. Risk analysis and preparation of risk maps, translation of technical risk maps to common people language, preparation of earthquake scenario and earthquake risk management action planning for both the cities are the near future activities of the project.

TECHNOLOGY TRANSFER

"MOBILE EARTHQUAKE CLINIC"

The number of new building construction is increasing day by day in Kathmandu Valley. And among the new buildings being constructed, large number of them is non-engineered, which means none of those buildings is being constructed according to the Building Code. As known to all, NSET has been trying hard to reduce earthquake risk. It is evident that the ongoing process has simply added the vulnerability concerns in buildings by conducting mason training, training for engineers, orientation for house owners etc. Complementing these efforts, "Mobile Earthquake Clinic" was started by NSET in Kathmandu Valley in 2004 to provide on-site consultation in aspects of earthquake-resistant building construction. It is an innovative initiative of NSET where a team of earthquake engineer/structural engineer, technician and masons visit different locations/building construction sites in and around Kathmandu valley and provide

technical advice on earthquake resistant construction. The clinic is conducted with an objective to bring knowledge of safer building construction at the construction site of informal buildings, assist Building Code implementation at site level, monitor impact of earthquake awareness and further stimulate the house owners, builders to consider earthquake risk.

During these years, the clinic has covered hundreds of buildings within Kathmandu Valley and has successfully served as an on-site implementation of Building Code. Remarkable improvements in building construction has been observed since then as stirrups shape, size and spacing, size of structural members like column and improved detailing in connections (beam column joints), protection of infill walls etc. Most of house owners got to know about the earthquake risk in Kathmandu Valley and they were convinced on the benefits of seismic resistant construction and its economy.



NSET technical personnel providing on-site consultation

Thus through NSET's mobile Earthquake Clinic, knowledge of safer building construction has been disseminated in a very effective manner.

ORIENTATION PROGRAMS

Orientation Program on Earthquake Risk Reduction and Preparedness

November, 2007: At the request from US Embassy, NSET conducted an orientation program on earthquake preparedness for the staff members of US Embassy at the Embassy premises, Maharajgunj, Kathmandu.

November, 2007: An Orientation program on earthquake preparedness was conducted for the staff of The

International Foundation for Election System (IFES) and other partner organizations at Hotel Shangrila, Lazimpat, Kathmandu.

November, 2007: An orientation program on earthquake preparedness was conducted for the Self- Builders of Bharatpur Municipality.



Delivering the orientation lecture

November, 2007: At the request from US Embassy, NSET conducted an orientation program on earthquake preparedness for the American Citizen Community in Nepal at the Phora Durbar premises, Kathmandu.

November, 2007: At the request from Action Aid Nepal, an orientation program on earthquake preparedness was conducted for the Federation of Community Forestry Consumers' Association.

December, 2007: An orientation program on earthquake preparedness was conducted for the members of Rotary Club of Tripureswor at Hotel Soaltee, Kathmandu.

CONFERENCE / WORKSHOPS

(November 2007 - January 2008)

Month / Year	Conference/ Workshops	Venue	Participation
November	Second Asian Ministerial Conference on Disaster Risk Reduction	New Delhi, India	Amod Mani Dixit
December	'Technical Refreshers Course on DesInventar ' 4-5 Dec, 2007 and Regional Workshop on Extensive Risk Analysis 6-7 Dec 2007 organized by Regional Centre Bangkok/UNDP	Bangkok	Gopi Krishna Basyal
January	SAARC workshop on application of Science and Technology organized by SAARC Disaster Management Center (DMC)	New Delhi, India	Ram Chandra Kandel
January	International Conference on Construction on " Managing Earthquake Risk" organized by Construction Industry Development Council and supported by National Disaster Management Authority	New Delhi, India	Amod Mani Dixit
January	Meeting on "Regional Launch of Global Campaign on Safe Hospitals" organized by UNISDR	Bangkok	Ramesh Guragain

ACTIVITIES / NSET BRIEFS

Disaster Risk Reduction through Schools



During the sensitization workshop

A Memorandum of Understanding (MOU) was signed among National Society for Earthquake Technology-Nepal (NSET), Action Aid Nepal, Centre for Policy Research and Consultancy (CPReC), Education Network (EdNet) and Disaster Preparedness Network (DPNet) on 17 January 2007, for their involvement as national partners in Disaster Risk Reduction (DRR) through School Project. As per the agreement Disaster risk reduction through school is being implemented in 4 districts of Nepal. The objectives set for the program are to: carry out safety review of 8 schools selected for piloting DRR in four districts of Nepal in the context of local natural hazards and suggest for repair, retrofit or rebuilding of schools, provide technical assistance to local partners at district level in their initiatives towards making schools physically safer, conduct initiatives/activities to ensure that new school buildings adhere to building

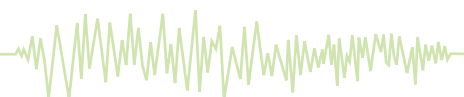
workshops for integration of DRR in school curricula and school safety, organize HFA sensitization workshops/seminars involving government, especially education sector and the civil society, develop DRR Information Educational and Communicational (IEC) materials for schools and civil society and coordinate with other national partners. As one of the major program component, a sensitization workshop "Hyogo Framework for Action Sensitization Workshop" was organized jointly by NSET and Action Aid Nepal with support from Women and Child Development Forum (WCDF) under the School Earthquake Safety Program of NSET on February 1, 2008 at Hetauda, Makwanpur. The workshop was organized for the School Management Committee Members & School Teachers of Bansagopal Higher Secondary School & Churiya Mai High School, Hetauda. Besides the school members, representative from NGO's & officials from District Education Office (DEO), District Development

codes that incorporate disaster resilience, carry out initiatives for the strengthening of public school's safety in Nepal, organize national policy influencing

Committee (DDC) also participated in the workshop. Altogether 40 participants actively participated in the workshop where there were presentations on Earthquake Risk Management in Nepal and Assessment report of the assessed two schools; Bansagopal Higher Secondary School & Churiya Mai High School of Hetauda.

Previously on 30 December 2007, a similar sensitization workshop was held at Nepalgunj, Banke for School Management Committee Members & School Teachers of the schools assessed, Janakalyan High School & Mahendra High School, Nepalgunj. The program was supported by Action Aid Nepal and Bheri Environmental Excellence Group (BEE Group)-Nepalgunj, Banke.

Similarly on 28th January 2008, an Interaction program with School Management Committee Members & Teachers of Buddhajyoti Bal Udyan Lower Secondary School, Balaju, Kathmandu and officials from Lumanti on School Safety was organized. In the program, presentation of the Assessment Report of Buddhajyoti Bal Udyan Lower Secondary School & Earthquake Risk Management in Nepal was made. The program was supported by ActionAid Nepal and Lumanti, Kathmandu.



MEETINGS

Throughout the period NSET had a spate of visitors ranging from representatives from Government of Nepal, delegates from various government and donor agencies, international organization and academic institution from around the

world. Some of those who visited NSET during the period are: Ms. Mariza A. Rogers, Senior Program Officer OFDA/ USAID; Ms. Tatsuta, JICA Coordinator; Mr. Andy Naslas, Save the Children Sweden; Mr. Surya Bhakta Sangachhen, DG Department

of Urban Development and Building Construction; Mr. Paul Right, Disaster Risk Reduction Advisor, United Mission to Nepal; Mr. Andrew Collings and Komal Aryal, University of Northumbria etc.

Other Activities

NSET professional, Mr. Surya Narayan Shrestha, Deputy Executive Director, NSET participated and presented paper in the Inter- Agency Disaster Risk Reduction and Emergency Preparedness Planning (DRR/EPP) Workshop organized by DPNet, Government of Nepal and Save the Children Alliance at Hotel Himalaya, Pulchowk on 22 November, 2007.

NSET professionals attended the Fifth Nepal Geological Congress on Geology, Environment and Natural Hazards Mitigation: Key to National Development organized by the Nepal Geological Society at the Shanker Hotel from 26 – 27 November 2007.

Mr Amod Mani Dixit, Executive Director, NSET was requested to be the keynote speaker in the program held on 3 December 2007, for the launching of DIPECHO Project Surakshit Samudaya, towards building safer communities in five districts of Nepal through disaster management initiatives.

Mr. Amod Mani Dixit, Executive Director, NSET attended a meeting with the Australian Ambassador to Nepal, Mr. Graeme Lade along with his Contingency Planning Action Team at his residence along with some other NGO's and Organizations involved in Disaster Preparedness on 5 December 2007.

On 12 January 2008, Mr. Surya Narayan Shrestha, Deputy Executive Director, NSET attended the partners meeting of Comprehensive Disaster Management Program (CDMP) Bangladesh organized by Asian Disaster Preparedness Centre (ADPC) and UNDP/ Bangladesh at Hotel Asia Pacific, Dhaka, Bangladesh

Mr. Amod Mani Dixit attended meeting for National Platform for Disaster Risk Reduction at Ministry of Home Affairs on 14 January 2008.

Mr. Binod Shrestha, Geotechnical Engineer of NSET made presentation on Earthquake Risk Management in Nepal in the Workshop on EDM

PRRP Capacity Building at Gaidakot, Nawalparasi on 17th January 2008 organized by Action Aid Nepal and supported by NSET.

NSET professionals attended the Video Conference on Risk Perception organized by Building Research Institute (BRI) and Graduate Research Institute for Policy Studies (GRIPS), Japan and supported by NSET at the World Bank Communication Centre, Kathmandu on 24th January 2008.

On 15th October 2007, NSET in association with UNICEF and Lalitpur Sub metropolitan City (LSMC) jointly organized a "Lessons Learned Workshop on Disaster Preparedness and Response Plan Framework (DPRP) for Safe Drinking Water in Lalitpur Sub-Metropolitan City, Nepal," at Hotel Himalaya, Lalitpur as a final sharing workshop under its project Disaster Preparedness and Response Plan for Safer Drinking Water in the Kathmandu Valley, Lalitpur Sub-Metropolitan City.

ESD Continued...

Earthquake Resistant School Building Handover Program



Gathered during the school handover program

An earthquake resistant school building handover ceremony was organized in Sainbhu Bhainsepati on the occasion of 10th Earthquake Safety Day on 13 January, 2008. The building constructed for Jana Udaya Lower Secondary

School at Sainbu V.D.C., Ward No 4, Bhainsepati, Lalitpur was handed over to the local community through School Management Committee. This is the 23rd school where NSET implemented School Earthquake Safety Program (SESP). Main objective of this program is to establish a culture of earthquake resistant construction by disseminating the technology in the local community. The program was organized jointly by NSET and School Management Committee of Jana Udaya Lower Secondary School. NSET provided technical support to retrofit the existing ground floor and construction of additional new floor complying fully with the seismic standards set by Nepal National Building Code. Besides, "On-the-Job Trainings" for local masons and awareness-raising activities for teachers, parents, students and local community were also conducted as part of the program. Major donors for implementing the program were World

Vision International Nepal, Lalitpur Area Development Program; Sainbu V.D.C.; District Development Committee, Lalitpur and District Education Office, Lalitpur. NSET also provided some financial support to the school; NSET's financial assistance was mainly used to make plaque, signboard, banner and for construction of plinth protection works.

Total floor area of the building is 4565 square feet. Cost for retrofitting was Rs. 4,80,957 and cost for new construction was Rs. 12,83,928. The total cost of the building was Rs. 17,64,885 out of which, about 75% of the total cost was supported by World Vision International-Nepal

National Symposium on "Experiences in Earthquake Risk Reduction and Response"

A symposium on "Experience in Earthquake Risk Reduction and Response" took place at Hotel Himalaya, Lalitpur for two consecutive days (14-



Participants attending the symposium

15 January). It was organized jointly by NSET, Department of Urban Development and Building Construction (DUDBC), Action Aid Nepal and OFDA/USAID. It was the 10th time that such a meeting of professionals' and decision makers was organized in the country in the occasion of Earthquake Safety Day. The basic target groups of the symposium were the professionals, decision makers in the government and outside government, international partners. The main aim of the symposium was to look back what we have done, what could have been done better and what are the gaps. The objective of the symposium was to share experiences of earthquake risk reduction and response between all stakeholders mainly among policymakers, decision makers and professionals.

The Symposium was inaugurated by Hon'ble Minister for Physical Planning and Works, Ms. Hishila Yami and the opening ceremony was chaired by Mr. Uma Kanta Jha, Secretary, Ministry of Physical Planning and Works. The opening ceremony was also addressed by Mr. Thir Bahadur GC, Under Secretary Ministry of Home Affairs, Mr. Vijay P. Singh, Assistant Resident Representative of UNDP Nepal, Mr. Krishna Prasad Devkota, Chief and Executive Officer of Lalitpur Sub Metropolitan City and Mr. Amod Mani Dixit, Executive Director of NSET.

Mr. Amod Mani Dixit in his welcome address highlighted the objectives of the symposium and requested everybody's participation for the success of the symposium. Hon'ble Minister Ms. Hishila Yami in her remarks focused on the need of sensitization of the issues of earthquake preparedness to the general public. She further said that we have already gone through many regulations regarding the earthquake resistant construction but the question is the proper implementation. As such, such issues need to be taken to the public forums, and make sure how far they are aware on earthquakes and how far we can deliver. Mr. Vijay Singh in his remarks said that the policymakers needs to recognize that the investments for earthquake risk reduction right at the moment when the project is being designed and being started is very

important to put into it. He said that ESD celebration highlights the experiences that Nepal has already gained and it will help to outreach to the local community and help to reduce the risk/help them to fight with the risk. Mr. Krishna Prasad Devkota highlighted on the importance of earthquake risk reduction and the efforts of Lalitpur Sub Metropolitan City towards it. Mr. Thir Bahadur GC in his speech said that timely amendments of the existing rules and regulations are necessary for its effective implementation. He further stressed that even though the government is playing facilitator's role to make the program successful yet it's the responsibility of all national and international organizations working in this challenging field and that of each and every individual. Mr. Uma Kanta Jha, Secretary, Ministry of Physical Planning and Works stressed on the need of the amendment of our existing National Building Code and also the circulation of outcomes and experiences of the symposium to the affected areas and the general public.

The two day symposium was divided into 6 thematic sessions namely:

- Session A:** Disaster Risk Management Strategy, Policy and Legal Framework
- Session B:** Global Campaign for Safe Hospitals and its Relevance to Nepal
- Session C:** Initiatives for Earthquake/ Disaster Preparedness and Response in Nepal
- Session D:** Initiatives for Earthquake/ Disaster Risk Reduction in Nepal
- Session E:** Disaster Education, Training and Research
- Session F:** Mainstreaming Gender Consideration into Disaster Risk Management

25 papers were presented in these sessions by the presenters representing different institutions both at the national and international level.

Overall the symposium was a great success participated by more than 150 participants representing the Government, Municipalities, INGOs, NGOs,

Academic Institutions and Community Members. It, in fact, became a common platform for sharing experiences in earthquake risk reduction and responses of the whole region.

Earthquake Memorial Meeting at Bhugol Park, Kathmandu

An earthquake memorial meeting was organized at Bhugol Park New Road Kathmandu in the morning of 16 January, 2008, the main day of ESD. The function was organized jointly by Kathmandu Metropolitan City (KMC) and Nepal Engineers' Association (NEA). The program was attended by officials from KMC, NEA, NSET including government officials and local residents. KMC also requested the public within Kathmandu to observe one minute silence at 11:00am including traffic halt during the silence period in the memory of those killed by the 1934 Earthquake.

Earthquake Safety Day Main Function

Various programs were organized by the Earthquake Safety Day National Committee to mark the 10th Earthquake Safety Day Main Function. The main day function was organized in Lalitpur Sub-Metropolitan City and the programs were:

Earthquake Memorial Meeting

An Earthquake Memorial Meeting was organized at Earthquake Monument, Durbar Square, Lalitpur. This program was organized by Lalitpur Sub-Metropolitan City. The meeting converted into a massive Earthquake Awareness Rally after paying homage to those deceased in the 1934 Earthquake.

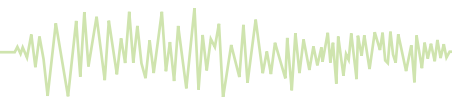
Earthquake Awareness Rally

The rally went through various parts within Lalitpur Sub-Metropolitan City. The rally consisted of Bands from Nepal Army, Nepal Police, Armed Police Force and Nepal Scout. The local music was also played by the Jyapu Samaj. High level government officials, municipality staff, representative of INGO's, NGOs, CBOs and the general public participated

ESD Logogram



The Logogram is a symbol to mark the 75th year of the Great Bihar- Nepal 1934 earthquake. The Nepali words inscribed in the logo denotes respectively 'awareness', 'commitment' and 'implementation' (of disaster preparedness), the key lessons learned from the earthquake. The logogram is proposed to be used by different stakeholders working in earthquake risk management areas in their print and publication media (letterheads, stamps, campaigns) at national and local level during the period Jan 2008 –Jan 2009. Hon'ble State Minister for Home Affairs of Nepal, Mr. Ram Kumar Chaudhari inaugurated the logogram during the main Ceremonial function of National Meeting devoted to Earthquake Safety Day on January 16, 2008





Glimpses of Earthquake Safety Day (ESD) celebrations

in the 1 km long rally. The rally converted into a mass meeting in the premises of Lalitpur Sub-Metropolitan office. Participants of the rally distributed awareness/information materials to the public and displayed awareness messages on the placards.

National Meeting:

The 10th ESD Main Day Function was chaired by Mr. Bir Singh Maharjan, President of Jyapu Samaj Lalitpur. Honorable State Minister for Home Affairs, Mr. Ram Kumar Chaudhari was the chief guest of the function. Mr. Krishna Prasad Devkota, Chief and Executive Officer of LSMC welcomed all the guests and audience of the gathering. Chief Guest, Hon'ble State Minister, Mr. Ram Kumar Chaudhari inaugurated the program and revealed the 10th ESD Logogram. Mr. Surya Bhakta Sangachhen, Director General of DUDBC, Mr. Amod Mani Dixit, Executive Director, NSET highlighted the existing earthquake risk, the preparedness and mitigation activities carried so far. They also urged the institutions and individuals to be more effectively united in making Nepal safe from earthquakes. Hon'ble Chief Guest in his remarks expressed his happiness to be in the function and promised that the Government will be equally concerned to reduce the existing earthquake risk in Nepal.

Earthquake Safety Exhibition

An Earthquake Safety Exhibition was also organized in the premises of Lalitpur Sub Metropolitan City. The exhibition was open to public after the formal inauguration by Hon'ble State Minister Mr. Ram Kumar Chaudhari for four days. In the exhibition, thirty four stalls of different government and non government organizations, security forces and international organizations displayed their equipment, materials, photos and their works related to disaster risk management. These stalls provided people with preventive measures to protect oneself during earthquake and exhibited models of earthquake resistant buildings as well.

Apart from the exhibition, other events were also carried out as a part of ESD events such as;

- Street Drama by Lumanti and Bimba Group
- Shake Table Demonstration

- "Duck, Cover and Hold" National Drill, 16 January 2008

Further, in addition to the regular programs of ESD, a **Workshop on "Developing Consensus on Selection/Etymology of Nepali Words Pertaining to Disaster Risk Management"** was also organized by National Society for Earthquake Technology-Nepal (NSET) in association with Department of Urban Development and Building Construction (DUDBC) and Action Aid Nepal (AAN) at Dhulikhel Lodge Resort, Dhulikhel on 19- 20 January 2008 with a purpose of developing a common understanding of words/terminology on disaster risk reduction, which would be useful for the public, authorities and practitioners. The main objective of the program was to select appropriate Nepali words for the 50 terminologies on disaster reduction developed by ISDR, develop consensus on them and develop a Nepali Disaster Risk Reduction/ Management Vocabulary. 15 prominent litterateurs, linguists, etymologist, of Nepal were together along with the facilitators from NSET to select Nepali words pertaining to disaster. The group selected words, discussed on them and came to a consensus on words appropriate to be used by the public, authorities and practitioners.

Earthquake Safety Day Celebrations outside the Valley

Butwal

On the occasion of 10th Earthquake Safety Day, 2008 various activities were conducted in Butwal. A Press Conference was organized on the evening of 15th January 2008 to inform the general public about the programs. The program in Butwal was coordinated by Friends Service Council and was participated by United Mission to Nepal (UMN), Nepal Red Cross Society Butwal, CRCD, The Adventist Development and Relief Agency (ADRA) Nepal including Butwal Municipality and the area unit of District Administration Office, Rupandehi. National Society for Earthquake Technology-Nepal (NSET) provided the technical input for the overall program and conducted a Shake Table Demonstration with partial financial assistance from Action Aid Nepal.

The day started with the Earthquake Awareness Rally from Puspapal Chowk

which converted into a mass meeting at Kanti Sabha Griha. Around 500 participants participated the rally displaying placard and distributing pamphlets with various message and information on earthquake risk reduction.

Shake Table Demonstration was organized in the office premises of Butwal Municipality in presence of around 600 participants. The participants were very much excited to see the models vibrating like in the case of a real earthquake. The anxious public interacted with the presenter from NSET until they were satisfied

Residents of Butwal also participated in the National drill on "Duck, Cover and Hold" carried out for 2 minutes at the exact time when Nepal was shaken by 1934 Bihar Nepal Earthquake followed by creating a human chain as a symbolic notion of the entire Nepali community to act jointly for disaster risk reduction and preparedness.

Biratnagar

On the occasion of 10th Earthquake Safety Day, 2008, an orientation program on Earthquake Preparedness and a Shake Table Demonstration was conducted in Biratnagar. Both of the program was coordinated by Biratnagar Division Office of Department of Urban Development and Building Construction (DUDBC) and was organized jointly by Biratnagar Sub-Metropolitan City (BSMC) and Morang District Development Committee (DDC). National Society for Earthquake Technology-Nepal (NSET) provided the technical input to both the programs. The Shake Table Demonstration program was conducted immediately after the orientation program on Earthquake Preparedness. So that the audience could very easily observe the simple techniques briefed during the orientation that can really make any building earthquake resistant.

In addition, various other activities were conducted throughout the country as part of ESD as:

- Earthquake Memorial Meeting and Various Programs on 16 January, 2008 in 25 Division Offices of Department of Urban Development and Building Construction (DUDBC) and all over 75 Districts.

TRAININGS

- 24 masons of Bharatpur Municipality were provided Training on Earthquake Resistant Construction of Building under the Community Based Disaster Management Program (CBDMP) of NSET. The program was conducted with support from PARADIGM-Nepal at Nepal Polytechnic Institute, Bharatpur, Chitwan from 19 – 23 November 2007.
- Two of the NSET professionals, Ms Nisha Shrestha, and Mr. Chandan Dhoj Ranamagar, visited Sustainable Environment and Ecological Development Society (SEEDS), India office in Delhi under the NSET-SEEDS Exchange program to get exposed to and to share experiences on the process of the generation and production of quality publication, media materials and website development and updating from 1-14 November 2007.
- NSET professional Mr. Sujan Rai attended a 6 day training program on 'GIS for Beginners' organized by Nepal Geological Society, International Centre for Integrated Mountain Development (ICIMOD) and Institute of Engineering (IOE) held at Institute of Engineering (IOE), Pulchowk from 12-17 November 2007.
- NSET professionals, Mr. Ram Chandra Kandel and Mr. Ganesh Jimjee participated in the Medical First Responders (MFR) Training Course organized by Nepal Police Academy and NSET/PEER at Nepal Police Academy, Maharajgunj, Kathmandu from 3-15 January 2008.

QUAKE MONITOR

Year	Magnitude	Location	Deaths
14/11/07	7.7	Antofagasta, Chile	Two people killed, at least 45 injured and buildings damaged (VIII) at Tocopilla. Twenty people injured and buildings damaged (VII) at Maria Elena
16/11/07	6.8	Peru – Ecuador Boarder Region	Minor damage at Guayaquil, Ecuador
22/11/07	6.7	Eastern new Guinea Reg, Papua New Guinea	Loose items were dislodged and damaged
25/11/07	6.5	Sumbawa region, Indonesia	Three people killed, hundreds injured and hundreds of houses destroyed (V) in the Bima-Dompu-Raba area
27/11/07	6.6	Solomon Islands	No reports of damage or casualties
29/11/07	7.8	Martinique Region, Windward Islands	One person killed, at least 100 injured, several buildings damaged or destroyed and power outages occurred
9/12/07	7.4	South of the Fiji Islands	No reports of damage or casualties
19/12/07	7.2	Andreanof Islands, Alaska	No reports of damage or casualties
20/12/07	6.6	North Island of New Zealand	One casualty due to heart attack, three buildings collapsed, and others heavily damaged

Source: USGS

TIPS ON EARTHQUAKE SAFETY

Prepare Emergency Kit – "GO-BAG"

Stock emergency supplies beforehand. These include: drinking water, water purifying tablet, non-perishable food and packaged food, medical supplies, portable battery operated radio (and extra batteries), flashlights (extra bulb and extra batteries), first aid kit, plastic sheets, blankets, cooking fuel, knife, tools, copies of important family documents (such as birth and marriage certificates, passports, insurance papers, bank documents, photos of family members etc.) and addresses, important telephone numbers, family emergency plan, copies of your house plan (useful in case of search and rescue action), some cash, duplicate set of keys, whistle etc.

PROFILE

Bijay Krishna Upadhyay

Earthquake Technology Training Specialist

National Society for Earthquake Technology – Nepal (NSET)



Mr. Bijay Krishna Upadhyay used to serve NSET as a part time consultant for various projects undertaken by NSET before he joined NSET as a full time staff on 1st August 2003 as an Earthquake Technology Training Specialist. He is engaged in formulating, planning and implementing various projects on Disaster Risk Reduction at the Community Level. Planning and organizing various types of training programs has been one of his major activities.

He was one of the team members for Capacity Building Programs implemented by NSET in earthquake-affected areas of Pakistan with support of UNDP (Nov 2005-April 2006). He was also involved in the planning and initiating rehabilitation process for the victims of Tsunami in India. He also served as the coordinator for the Nepal Gujarat Masons Exchange Program in Patanka Village of Gujarat after the Bhuj Earthquake in 2001. The exchange program was organized for the capacity building of local masons in earthquake resistant building construction.

Mr. Upadhyay conceptualized and developed "Shake Table", a simple and effective tool to demonstrate the effects of earthquake in buildings and techniques to minimize them. This has been one of the most effective tools to raise public awareness and convince them about the simple and effective technology for the construction of Earthquake Resistant Buildings. This demonstration has been carried out successfully in various countries like India, Bangladesh, Pakistan, Iran, Indonesia, Japan and also in the various parts of Nepal.

Mr. Upadhyay served as Program Leader of Shelter Development Program in DCS Butwal 1994-1998. He was also one of the team members of the Nepal National Building Code Development Project 1991-1993. He worked as a draftsman in Bhaktapur Development Project (a joint venture in between Government of Nepal and Federal Republic of Germany) 1978–1983 and was awarded GTZ scholarship (1983-86) for a private study program in India aimed at Associate Member Institution of Engineers (AMIE) India.

FOR TIPS ON EARTHQUAKE RISK MITIGATION TUNE IN TO...

Radio Sagarmatha (FM 102.4) at 7.30 PM, Tuesday
Radio Annapurna (FM 91.8) at 7.30 AM, Wednesday

FOR MORE INFORMATION ON

Earthquakes and NSET's efforts towards earthquake risk reduction log on to www.nset.org.np



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