

Earthquake Safety



भूकम्प प्रविधि

राष्ट्रिय समाज-नेपाल

NATIONAL SOCIETY FOR EARTHQUAKE TECHNOLOGY-NEPAL

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Celebrating the Earthquake Safety Day



Earthquake Monument

Awareness Rally on ESD

Earthquakes are an unavoidable part of Nepal's future, just as they have been a part of its past as Nepal lies in a very active seismic zone. Nepal has experienced a number of devastating earthquakes within living memory such as those in 1934 and 1988. In the 1934 earthquake more than eight thousand people lost their lives with massive destruction of property. The 1988 earthquake claimed 721 lives, mostly in the Eastern Nepal, and property worth millions of rupees were destroyed. The seismic record of Nepal suggests that earthquakes similar in size to the 1934 event occur approximately every 75 years, indicating that a devastating earthquake is inevitable in the long run and likely in the near future. It is thus very important and essential to create awareness among the people as well as the policy makers about the consequence of such disasters so that steps can be taken to mitigate the impact of such disasters in time.

Keeping this reality in mind, Government of Nepal at NSET's request declared second day of the month of Magh (as per Bikram Sambat - Nepal Calendar) as National Earthquake Safety Day (ESD), annually in commemoration of the Great Bihar-Nepal Earthquake of 1934. Apart from creating awareness about earthquakes the theme of the day is to share knowledge and information about safety measures and disaster management.

So every year on 2nd of Magh Nepal celebrates the national Earthquake Safety Day (ESD). It is in fact the culmination of earthquake risk management works implemented in the country in the preceding 12 months, and allows taking stock of the achievements and shortcomings.

The National Society for Earthquake Technology - Nepal (NSET) observes the ESD by organizing activities with the purpose of raising awareness on earthquake risk reduction and preparedness. NSET manages its ESD programs as a part of the national program, approved by the Earthquake Safety Day National Committee (ESDNC), chaired by Hon. Minister for Home Affairs.

NSET has successfully organized eight Earthquake Safety Days since 1999 with close cooperation with government organizations, municipalities, I/NGOs and local community. With invitation from NSET, participation from International level in ESD activities has also been very remarkable. The ESD program typically runs for a week, and it includes ceremonial parts (National meetings with Honorable Prime Minister/Minister as the Chief Guest, public broadcast of earthquake safety message by the Prime Minister/Minister, awareness rallies, publications and distribution of posters and other

awareness materials), a Symposium on Experiences of Earthquake Risk Management, an Earthquake Awareness Exhibition that runs for 4-5 days, various programs for school children (essay/painting competition, street drama on earthquake safety etc), demonstration of Shake Table test of 1:10 scale building models with and without earthquake-resistant elements. This year on 16th January 2007, Nepal is observing the Ninth National Earthquake Safety Day (ESD).

As the previous years this year also a week long of ESD events from 12th-18th January 2007 is planned. Starting 12th January 2007, when Nepal's ninth annual Earthquake Safety Week begins, different organizations and experts will come together in public forums to raise awareness and discuss the problems raised by quakes. Kathmandu is the focus this year, and the week will kick off with programs such as, two days Symposium on "Experience in Earthquake Risk Reduction and Response", Awareness Rallies, Exhibitions and Shake Table Demonstration.



Gathered for the ESD

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REGIONAL TRAINING PROGRAM

Hospital Preparedness for Emergencies (HOPE)

Hospital Preparedness for Emergencies (HOPE) Hospital preparedness for emergency (HOPE) is a four day course of the Program for Enhancement of Emergency Response (PEER) developed by regional experts, suited for our region. It has been tried, tested and modified with the help of NSET, USAID, and Johns Hopkins University Center for International Emergency in the five countries involved, namely Nepal, India, Bangladesh, Indonesia and Philippines with the recent addition of Pakistan as the sixth PEER country. Each country will in future develop their own group of instructors and will conduct national HOPE courses. The component of HOPE is: structural, non-structural, incident site management, hospital preparedness for internal and external incidents.

The training of four days is usually intended for medical experts with expertise in the field of emergency medicine and disaster preparedness and serving as faculty or lecturers at appropriate institutions where future HOPE courses can be conducted.



Participants involved in practical exercise during the HOPE training



Participants on the HOPE training

The course addresses the structural, non-structural, organizational and medical concerns of health facilities in order to develop and implement well-designed plans that increase their capacity to respond effectively to emergencies. Upon completion of the course, the student will be able to conduct a vulnerability assessment of the hospital and develop a hospital disaster plan. If HOPE is implemented in hospitals, we can at least try to be prepared so that loss of life and property can be minimized in future disasters.

PROVENTION CONSORTIUM



Two young professional engineers of NSET: Mr. Binod Shrestha, Geotechnical Engineer and Ms. Hima Shrestha, Structural Engineer were awarded Applied Grants for Disaster Risk Reduction in 2005-06 under the funding of ProVention Consortium's program which was globally announced over 60 countries in May 2005.

The topics of the research were "Developing a set of Standard Building Design suitable for Nepal" and "Development of Seismic Retrofitting Scheme for Typical Nepali non-engineered masonry infill reinforced concrete framed buildings" respectively. Their research is highly recognized. Both of them were able to publish their articles in 'Real Risk' in August 2006, which is the publication of Tudor Rose and ISDR, launched at the. Real Risk is the latest in a series of volumes addressing the risks faced by communities across the world. Among the three papers published from the Asia, two are from NSET, Nepal. It brings together the knowledge and experiences of public and private organizations working toward disaster preparedness and mitigation at local, national and international levels.

NSET INTERN



Mr. Imai with the demonstration model

National Society for Earthquake Technology- Nepal (NSET) welcomes interns from Nepal and abroad to participate in its work. The primary objective of the internship program is to contribute to the training of earthquake risk management, awareness and preparedness program and any other ongoing research and disaster inventories work with the spirit of reciprocity and mutual benefit.

In this course, Mr. Hiroshi Imai, Trainee, Individual Training for Prospective JICA Expert joined NSET as an intern (trainee) for a month from 29th August to 29th September 2006. The theme of the training was development skill of the community-based program on the dissemination of earthquake resistant techniques for the countries with high seismic hazards. During his intern period he joined the regular activities of NSET (school projects, mobile clinic, etc.). He assisted in conducting workshop for the masons that is training for the trainers as technical training and as refresher training for masons who have been trained by NSET earlier. Further to study the aspects of earthquake resistant designs: existing methods and new methods by using different models, he conducted the shaking table demonstrations at the NSET office premises to see the response from the model buildings. In addition he also revised and reviewed the textbooks and posters of earthquake safety published by NSET for possible use in other countries.

Disaster Preparedness and Response Plan Framework (DPRP) for Safe Drinking Water in Lalitpur Sub-metropolitan City (LSMC)

The project Disaster Preparedness and Response Plan Framework (DPRP) for Safe Drinking Water in Lalitpur Sub-metropolitan City (LSMC) is launched as a pilot project (Oct 2006- May 2007) by UNICEF in joint collaboration with NSET and LSMC. The main objective of the project is to contribute to the Disaster Response Preparedness of the Lalitpur Sub-Metropolitan City (LSMC) by building capacities. To achieve the objective the team would work together to develop an outline of a comprehensive Framework of Disaster Preparedness and Response Plan, identify the potential evacuation sites within LSMC to be used during emergency, select the deep tube wells from existing tube

wells, which are accessible to the identified evacuation sites, conduct the earthquake vulnerability assessment for the selected ones, make them earthquake resistant and further establish new deep tube wells if none of the existing wells are accessible to the identified evacuation points. The project team would work in close coordination with LSMC and other Key-Stakeholders ensuring their involvement in all steps and conduct a series of seminars/workshops during each major steps to buy-in and further suggestions from the related authorities and other Key-Stakeholders in order to involve as many local people as possible during both the development of

the Overall of Disaster Preparedness and Response Framework.



During the field visit

Conduction of a National Planning Workshop

In this series a one day Planning Workshop for the project Disaster Preparedness Response Plan (DPRP) Framework for Safe Drinking Water in Lalitpur Sub-metropolitan City, Nepal, was organized jointly by NSET, UNICEF and LSMC on 31st October, 2006. The workshop was participated by Executive Officer of LSMC, Chief District Officer of Lalitpur, Joint Secretary of MOLD, Chief of CWE, UNICEF, Joint Secretary of MPPW, President of NSET, Executive Director of NSET, Program Officer of UNICEF and other representatives from different national and international organizations, media sources, local clubs and guthies. The representatives from different organizations, during the opening session, highlighted the importance of the workshop and pointed out the need of identified evacuation sites and provision of emergency water supply in the event of major earthquake and other disasters, and also the need of collaborative effort of all the institutions

towards it. The representative from OCHA presented the Role of Inter Agency Standing Committee (IASC) in Emergency Relief Operation/ Learning Experiences and Program Officer; UNICEF gave a brief overview of the current project, DPRP. Likewise an Earthquake Engineer from NSET presented the earthquake risk of Kathmandu Valley and Lalitpur with the loss estimation of previous studies and Disaster Management Expert and Hydro-geologist presented a brief view of existing open spaces within LSMC, identified evacuation sites and potential deep tube wells for emergency water sources. A consensus building session for the identification of evacuation sites, and selecting the deep tube wells was conducted in the workshop. Many arguments and discussions were made in the session. However, the identified evacuation sites and deep tube wells were agreed by the participants.

Thus the organized workshop was for

sharing the key roles of different agencies (LSMC, NWSC, Ministry of Home Affairs/ MOHA, Ministry of Physical Planning and Works/ MPPW, Department of Water Supply and Sewerage (DWSS) and Nepal Red Cross Society (NRCS) and further Memorandum of Understanding was also signed on the same day.



Participating the National Planning Workshop

Community Based Disaster Management Program

Community Based Disaster Management Project (CBDMP) conducted by NSET is formulated to initiate Community Based Disaster Management initiatives at six municipalities in Central and Western Development Regions of Nepal. The project will be launched in three wards of each of the selected municipalities with the support of UNDP Nepal. The selected municipalities are: Putali Bazar Municipality, Syanja, Vyas Municipality, Tanahu, Bharatpur Municipality, Chitwan, Hetauda

Municipality, Makwanpur, Malangwa Municipality, Sarlahi, Kamalamai Municipality, Sindhuli. The project was initiated on April 2006 and is planned to be accomplished by the end of September 2007. The overall goal of CBDMP is to enhance the safety of communities vulnerable to natural disasters and protect common property and community resources in select disaster prone districts through appropriate capacity building measures at community, district and central levels and supporting and replicating

community-based disaster mitigation initiatives that preferably enhance livelihood opportunities.



Community members in the ward assembly in Bharatpur

Disaster Management Training

Out of the various activities of the project, recently five days Disaster Management Training was conducted for the members of the Ward Level Disaster Management Group of the selected six municipalities under the project. The six municipalities were divided into two groups, with three municipalities in each and similar 5 days DMT training was given to both the groups. The first DMT Training was conducted at Hotel Avocado, Hetauda from 5-9 November 2006

for the group consisting of representatives from three municipalities viz, Hetauda, Kamalamai and Malangwa. And the second DMT was conducted at Hotel Navratna, Damauli from 12-16 November 2006 for the group representing Bharatpur, Putalibazar and Vyas municipality. The training was organized for the members of the Ward Level Disaster Management Group in order to give them general overview of disaster and some basic knowledge on managing disaster.



During the training at Makawanpur

TRAINING PROGRAMS IN NEPAL

Mason Training Program



Masons attending the lecture

On request from Save the Children Alliance (SCA), National Society for Earthquake Technology-Nepal (NSET) conducted five days masons training program at Lahan.

The mason training program was organized in Dulichand Sarada Atithi Sadan, Lahan from 6 to 10 August

2006. Out of the 33 participants 20 were practicing masons, 4 sub-overseers, 2 overseers and 7 non technical personnel from various partner agencies of SCA including representatives from Nepal Red Cross Society. The training was conducted as per the standard curricula designed by NSET. The curricula have optimum theoretical sessions and practical sessions for upgrading the skill of practicing masons in Earthquake Resistant Construction Technology. All the sessions were conducted in a participatory manner with presentations followed by the interaction of the participants. The participants actively participated in entire duration of the training program. Similarly on 18 August, 2006, second phase of mason training for earthquake

resistant structures was held at the Adarsha Saul Higher Secondary School at Bungamati, where NSET is assisting in the retrofitting/construction of a school building. The training program was a part of NSET's School Earthquake Safety Program (SESP).



Trainees making masonry full scale model

“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



Providing on site consultation

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 onsite 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



Providing on site consultation

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

ORIENTATION PROGRAMS

Orientation Programs on Risk Reduction

NSET organized an introductory orientation on earthquake safety on August, 2006 for the parents, teachers and community members of Adarsha Saul School, Bhainsepati, Lalitpur. The program was conducted by Mr. Narayan Marasini, Mr. Ram Adhikari and Mr. Sanju Sharma from NSET. Further on September 15, 2006 NSET organized an awareness program on earthquake safety at Samundra Setu Higher Secondary School Imadol. The orientation presentations were made by Mr. Ram C. Kandel, Mr. Narayan Marasini, and Mr. Ram Adhikari of NSET. The program was divided into two sessions, session I

was for the students and session II was for the parents and teachers of Samundra Setu Higher Secondary School.

Similarly another awareness program on earthquake safety was organized by NSET for both the students and teachers of the Prabhat Madhyamik Vihyalaya, Thahiti. The program was conducted by Mr. Ram Chandra Kandel and Mr. Surya Pd Acharya of NSET.

Yet another program for providing earthquake orientation to the teachers and staffs of the Lincoln School was organized at the school premises, Ravibhawan on October 20, 2006.



Delivering the orientation lecture

Mr. Ramesh Guragain Senior Earthquake Engineer of NSET delivered the lecture.

OTHER OUTREACH PROGRAMS

August, 2006: On request from Save the Children Alliance (SCA), National Society for Earthquake Technology–Nepal (NSET) conducted a one day Earthquake Orientation Program at Hotel Swagatam, Biratnagar. The earthquake Orientation program was observed by 40 participants. Most of them were the officials from SCA covering the Eastern Districts of Nepal. Representatives of various partner agencies of the SCA were also present on the program. Mr. Bijay Upadhyaya Earthquake Tech. Training Specialist and Mr. Sanju Sharma, Civil Engineer, NSET conducted the program.

August, 2006: An Orientation program on earthquake preparedness was conducted for Child Workers in Nepal (CWIN) staff members. Mr. Bijay Upadhyaya Earthquake Tech. Training Specialist and Mr. Sanju Sharma, Civil Engineer, NSET conducted the program.

August, 2006: Mr. Narayan Marasini Civil Engineer and Ms Hima Shrestha, Structural Engineer from NSET conducted an orientation program on earthquake basics at Dharmachakra Bihar, Baghbazar for the members of the Chitrakar Society as

a part of public awareness program on the request from the society.

September 2006: An orientation program on earthquake safety was conducted for the Staff of DFID and British School at British School, Jhamshikhel by Mr. Ram C. Kandel, Senior Civil Engineer, NSET, Mr. Surya Pd. Acharya, Civil Engineer, NSET and Mr. Ram Adhikari Civil Engineer, NSET.

September, 2006: An orientation program on earthquake safety was conducted for the Staff of VSO at Hotel Shanker, Kathmandu. The program was conducted by Mr. Ram C. Kandel, Senior Civil Engineer NSET and there were altogether 41 participants.

November, 2006: An orientation program on earthquake risk management was conducted for the staffs of Save the Children Norway at the Administrative Staff College, Lalitpur. The program was conducted by Mr Bijay Upadhyaya, Earthquake Tech. Training Specialist and Mr. Ram Chandra Kandel, Senior Civil Engineer at NSET.

ACTIVITIES / NSET BRIEFS

Refreshers Workshop for Trained Masons

A two day refreshers workshop of trained masons on "Earthquake Resistant Construction of Buildings" was organized on 14-15 September 2006, at the conference hall of Lalitpur Sub-metropolitan City, Pulchowk, Lalitpur. The program was jointly organized by the Lalitpur



Masons involved in group discussion

Sub-metropolitan City (LSMC) and National Society for Earthquake Technology (NSET) with the support from JICA. Altogether 52 masons of Lalitpur districts who were trained on earthquake resistant construction technology during past training programs attended the workshop. It was regarded as follow-up of the past training programs that were jointly organized by NSET, DUDBC, LSMC and other partnering Institutions. The objectives of the workshop were to assist the masons in promoting safer building construction practices, refresh their skill and enhance capacity, share experiences and challenges faced in the field by them,

find out proper ways to convince the house owners about earthquake safety and make them clear about the additional cost of construction that could occur for earthquake resistant building. In a whole the program was able to refresh the technical and motivation skills of the masons.

Earthquake Memorial Day 2006 in Dharan

Dharan Municipality and National Society for Earthquake Technology Nepal (NSET) jointly organized various events with financial support from Action Aid International Nepal for the celebration of the Earthquake Memorial Day 2006 from 21 to 24 August 2006 to mark the 18th anniversary of August 21 1988 Udaypur Earthquake. The events included;

I - Follow up interaction program with the trained masons and the clients they served in building homes after their training:

The follow up program included the visit to the buildings constructed by the trained masons and Interaction Program with the Trained Masons and their Clients. NSET and the municipality jointly had trained 62 local practicing masons on the Earthquake Resistant Construction Technology in the past. This follow up program mainly probed into, performance evaluation of the trained masons, challenges that these trained masons are facing in transferring the technology, perception of their

clients towards Earthquake Resistant Construction Technology.

II Sensitization program on the role of civil society in disaster risk reduction:

Interaction Program with the representatives of civil society institutions like Rotary, Lions, Leo, Reyukai, and other local CBOs and Clubs actively working in Dharan was conducted on the 23rd August 2006. The objective of this interaction was to sensitize the organized sector of the civil society on their role of disaster risk reduction.



Celebrating earthquake memorial day in Dharan

III Regional Workshop on Municipal Level Disaster Risk Reduction (with special emphasis to earthquakes):

A regional workshop for the municipalities of the Eastern Development Region of Nepal was held on 24 August 2006. The goal of this workshop was to sensitize and motivate the municipalities to initiate Earthquake Risk Reduction activities at the municipal level.

CONFERENCE / WORKSHOPS

Month/ Year-2006	Conference/ Workshops	Venue	Participation
August	INSARAG- USAR Exercise Program organized by UN- OCHA on the occasion of 50th anniversary of China Earthquake, 4-7 Aug, 2006	China	Mr.Varun P. Shrestha
August	Sixth Annual IIASA-DPRI Forum on Integrated Disaster Risk Management: Risks and Challenges for Business and Industry (IDRiM 2006)	Istanbul, Turkey	Mr.Amod Dixit, Mr. Ram C. Kandel
August	International conference on "Strengthening South Asia for Regional Disaster Risk Reduction: South Asian Media and Policy Conference. Paper presentation made on Community Based Disaster Risk Management - Lesson Learnt and Challenges Ahead in Nepal"	New Delhi, India	Mr.Amod Mani Dixit, Prof.Vinod K. Sharma
October	Two-day state level consultation on Disaster and Governance on October 5-6, 2006 at HIPA, organized by Government of India	Shimla (INDIA)	Mr Amod Mani Dixit
November	Regional Forum for Disaster Risk Reduction in Mega Urban Centers, Kobe Japan, 3-4 Nov 2006, Organized by EMI and Kobe University	Kobe/ Japan	Mr.Amod Mani Dixit
November	Tokyo International Workshop 2006 on "Earthquake Disaster Mitigation for Safer Housing and Relevant Events" in Japan (Tokyo/Tsukuba) organized by Building Research Institute (BRI), 18- 30 Nov, 2006	Tokyo/ Japan	Mr.Amod Mani Dixit

ACTIVITIES/NSET BRIEFS.....

In-House Training

- 19th September 2006, altogether 4 staff of NSET attended the 3 days training program on Hospital Preparedness for Emergencies (HOPE) conducted by NSET/ PEER in Dharan
- 5th October 2006, a five day USAID/OFDA standard training course, "Training for Instructor (TFI)" was organized by NSET for its staff at Park Village Resort, Budhanilkantha. It was a residential training program attended by 23 participants. Out of 23 participants, 17 were the staff of NSET and the other 6 were from the other partner institutions. The main purpose of the program was to train individuals to perform the tasks necessary to be an effective OFDA Standard Instructor. The training course was divided into 12 units followed with group exercises, presentations, pre-test and post tests.

Strategic Planning Workshop

Strategic planning workshop on "Exploring Future of National Society of Earthquake Technology-Nepal (NSET)" was conducted by NSET on 10th October 2006, at the Park Village Resort, Budhanilkantha, Kathmandu. The main purpose of the workshop was to share the shared vision, review NSET's activities vis-à-vis current SVMSO (Shared Vision, Mission, Strategies, Objectives) and publicize NSET's new SVMSO and further to

get inputs on what NSET should focus on and what activities should be given high priority from the working staffs' perspective. The workshop was facilitated by Sansthatag Bikas Consultancy Kendra (SBCK).

Disaster Risk Management Master Planning

Third Consultation meeting under Cross-Cutting Capacity Development (3cd) Program for Disaster Risk Management Master Plan (DRMMP) of Kathmandu Metropolitan City (KMC) was conducted from (9-16 Nov, 2006). The program is an initiative of KMC, Earthquake Mega Cities Initiative (EMI) and Pacific Disaster Center (PDC). NSET has agreed to provide local knowledge and expertise to PDC as well as to liaise and support activities among PDC, EMI and KMC for 3cd program. During the visit various programs were conducted, which included a half day workshop on Information and Communication Technology (ICT) Focus Group for DRMMP of KMC, workshop on options for risk reduction from land use planning perspective organized by KMC and a High Level Meeting to inform on 3cd program and request the government agency to consider 3cd in their upcoming plans.

Symposium

An international symposium on "Geodisasters, Infrastructure Management and Protection of World Cultural Heritage Sites" was organized jointly by Nepal Engineering College (NEC), Ehime University (Japan) and NSET on 25 -26 November 2006 at Hyatt

Regency, Boudha. In the symposium Mr. Shiva Bahadur Pradhanang, President of NSET delivered the keynote address on "Earthquake Risk Management in Nepal and Challenges Ahead." Mr. Varun P. Shrestha, Senior Technical Advisor of NSET chaired the Technical Session I and Mr. Ram Chandra Kandel, Senior Civil Engineer and Mr. Ramesh Guragain, Senior Earthquake Engineer, at NSET presented papers at the symposium.

Technical Assistance

NSET provided technical assistance on a 3 day training program on "Engineers Sensitization and training on National Building Code Implementation for Municipal Engineers /Junior Engineers" organized by UNDP/Nepal and Ministry of Local Development (MOLD) at Hotel Chautari, Nagarkot from 28-30 November 2006.

New Cooperation Agreements

A Memorandum of Understanding (MOU) was signed between NSET and Shree Jana Uday Nimna Madhayamik Vidhyalaya as one of the selected schools under SESP program of NSET. MOU was signed on 17 Oct 2006 at the School. NSET will provide technical support in the construction part as it is planned that ground floor of the school building will be retrofitted and one floor will be added to that building. The work has started in ground floor for retrofitting. NSET has provided on the job training to local masons.

PUBLIC AWARENESS PROGRAM

House owners Consultation Program:

Every Friday Afternoon, free consultations are provided to the house owners or potential house owners who want to retrofit or are planning to construct their houses implementing earthquake-resistant techniques. This weekly consultation program, conducted by engineers of NSET, focuses on earthquake resistant building construction. It is open to house owners, masons, contractors, technicians and others who want to learn about the earthquake resistant technology.

PEER EVENTS CONDUCTED DURING (AUG-NOV) 2006

Events	Event Level	Date
Bangladesh		
CSSR - Adaptation	Standard National	August 2-9
Country Planning Meeting	National	August 12-13
India		
MFR/CSSR -Adaptation	Standard National	September 14-16
Workshop-National	Standard National	November 1-4
HOPE - PFAP	Standard National	November 6-10
H-TFI - PFAP	Standard National	November 7-19
MFR - National		
Indonesia		
Country Planning Meeting	National	September 13-14
Nepal		
MFR -National	Standard National	September 13-25
HOPE- PFAP	Standard National	September 18-21
TFI - NSET	Standard National	October 5-9
CSSR-National	Standard National	October 12-20
Philippines		
CSSR - National	Standard National	August 8-15
Country Planning Meeting	National	September 6-7
TFI- PFAP	Standard National	Nov 21-25
MFRIW- PFAP	Standard National	Nov 27 - Dec 1

* PFAP – Partial funding assistance program

QUAKE MONITOR

Year	Magnitude	Location	Deaths
May-06	6.3	Yogyakarta/Indonesia	6234
Jul-06	7.7	Java / Indonesia	At least 659
Sep-06	6	Florida/US	None/ Other damages
Oct-06	6.7	Hawaii /US	None/ Other damages
Oct-05	7.6	Pakistan/ India	>75000

Source: USGS

TIPS ON EARTHQUAKE SAFETY

Check for Hazards in the Home
Identify Safe Places Indoors and Outdoors
Educate Yourself and Family Members
Have Disaster Supplies on Hand
Develop an Emergency Communication Plan
Help Your Community Get Ready

PROFILE

Hima Shrestha

Structural Engineer
National Society for Earthquake
Technology-Nepal (NSET)



Hima Shrestha joined National Society for Earthquake Technology-Nepal (NSET) in March 2004 as Structural Engineer. Since then, she is involved in various earthquake disaster mitigation activities undertaken by NSET which includes orientation and training programs, earthquake resistant building design and above all her main task at NSET has remained in earthquake vulnerability assessment of existing buildings and strengthening measures to improve the response of building structures in large earthquakes. Before joining NSET, she served as Structural Design Engineer in a private consulting firm for seven years, many of which include IDA/ADB projects.

During her short professional carrier in NSET, she has made tremendous progress in her ability to handle projects independently. During her employment period in NSET, she participated in various seminars and workshops at both national and international levels and made presentations.

She holds Bachelors degree in civil engineering from Punjab engineering college, Chandigarh, India, masters degree in Structural Engineering from Institute of Engineering, Pulchowk, Nepal. NSET also sent her to attend twelve week course on "Aseismic design and construction" in Skopje, Macedonia in 2005. Recently in 2005/2006 she has completed a research on "Development of Seismic Retrofitting Scheme for Typical Nepali Non-engineered Reinforced Concrete Frame Buildings with Masonry Infill" under applied research grant project of ProVenton Consortium. The findings are also published in "Real Risk" a publication of ISDR and Tudor Rose, 2006.

A Nepali citizen, Hima was born in 1971 in Kathmandu and is married with one daughter.

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
earthquakes risk reduction log on to www.nset.org.np

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