

Earthquake Safety

NATIONAL SOCIETY FOR EARTHQUAKE TECHNOLOGY-NEPAL



भूकम्प प्रविधि
राष्ट्रिय समाज-नेपाल

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16th NSET Day

NSET completes 16 years of its mission!

Bhookampa Pravidhi Rashtriya Samaj-Nepal (भूकम्प प्रविधि राष्ट्रिय समाज-नेपाल) or the National Society for Earthquake Technology-Nepal (NSET) has completed 16 years of its establishment. This is in itself a remarkable course in the history of Nepal in paying organized efforts for the cause of earthquake safety and concerns over issues of hazards at large. Moreover, the outcomes of integrated and collaborative initiatives from various stakeholders resulted are what NSET accounts as achievements to enhance community's earthquake resiliency. This journey has further endorsed NSET's institutional mission to assist all communities in Nepal to become earthquake-safer by developing and implementing organized approaches to managing and minimizing earthquake risks.

The idea of setting up a specialized centre for reducing potential damages by earthquakes occurred to the founders of NSET after the Udayapur earthquake of 1988. The founders were among those Nepali professionals who were involved in the damage assessment and later, in the reconstruction and rehabilitation efforts. The damages were widespread and the earthquake became a turning point in terms of policy-making for responding to disasters. NSET

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NSET accomplishment Community Earthquake Learning Centre (CELC)

National Society for Earthquake Technology-Nepal (NSET) has gathered the pride of constructing own building facilities at Sainbu Residential Area, Sainbu VDC - Ward No. 4, Lalitpur District, Kathmandu Valley (2 km from Lalitpur Sub-Metropolitan City, Ring Road), Nepal. In accordance with NSET dream and plans, these establishments are well set to serve as Community Earthquake Learning Center (CELC). CELC has been made fully functional since 1st of April 2009.

The concept of CELC aims broadly to enhance earthquake resiliency of communities by providing



CELC Building at Bhainsepati

conductive and inspiring environment and services equipped lavishly and clustered for particular purposes so that exchange of knowledge and information on hazards and disaster risk management could be realized and disseminated more accurately. CELC themes are specifically confined on better understanding

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Earthquake Safety Day-2009 marked

Commemorating the most devastating tremor that quaked on 15th of January 1934 (i.e. 2nd Magh 1990 as per Bikram Sambat calendar) in Nepal-Bihar region, the Earthquake Safety Day -2009 has been observed nationwide amid extensive participation of people from various corners comprising array of coordinated activities. The numerous programs put at core the aim to pay considerable attention to the issue of natural hazards and get privileged with enhanced values of awareness, commitment and implementation (of disaster preparedness), the key lessons learnt from the earthquake which

had caused then loss of more than eight thousands human lives together with massive physical destructions. This was the 11th edition of Earthquake Safety Day (ESD) following the declaration and initiation of Government of Nepal to mark it in the year 1999. The main slogan of the day this year was "Safe behavior and Strong Residence, Increase community's Earthquake Resilience".

Earthquake Safety Day National Meeting was held on 15th Jan 2009 at historic Bhugol Park, New Road, Kathmandu in a gala event. The Chief Guest Honorable Minister

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ESD inauguration ceremony



Continues NSET completes ...

President Mr. Shiva Bahadur Pradhanang recalls that the Udayapur Earthquake of 1988 was an "eye opener" for Nepal not only as regards the extent of damages that tremors could cause, but also in terms of the understanding why preventive measures are important.

NSET General Secretary and Executive Director Mr. Amod Mani Dixit highlights the emergence of NSET so as to address two key areas. First, new approaches were needed for empowering communities with scientific knowledge on disaster risks and risk reduction measures and to help them in implementing the measures by enhancing communities' capacities in disaster preparedness. And secondly, it was also necessary to advocate for disaster risk reduction and assist central and local governments to develop and implement appropriate strategies, policies and programs.

NSET has developed and implemented several innovative initiatives and processes. Nepal began observing

Earthquake Safety Day in January 1999 and the ownership of this program is shared by government, academic and private sector institutions as well as the communities. The School Earthquake Safety Program (SESP) was started in 1997 and is still being implemented. Similarly, the innovative methodology of earthquake damage risk assessment and action planning risk management was first completed in Kathmandu Valley and is being replicated in several municipalities. Other initiatives taken up by NSET are Earthquake Mobile Clinics, Vulnerability Tours, training of masons and petty contractors in earthquake-resistant construction, development of methodologies for seismic vulnerability assessment of health institutions and enhancing emergency response capacities of formal institutions and informal community groups. Many of these initiatives have been endorsed by reputed universities and research institutes in Nepal, India, Japan, and the United States of America and by the United Nations. Some of the

approaches have been replicated in other countries: in India after the Gujarat Earthquake (2001), Iran after the Bam Earthquake of 1999, Pakistan after the Kashmir Earthquake of 2005 and in countries affected by the Tsunami of 2004. NSET activities constitute a broad spectrum ranging from technological innovations & academic as well as policy level interventions to upgrading disaster awareness among school-children, house-wives, & commoner people and promoting capacity building of construction activists at grass-root level. NSET endeavors are hence well-set, well-addressed and sustained.

NSET is affiliated with International Association for Earthquake Engineering (IAEE) and World Seismic Safety Initiative (WSSI). It is a founder member of Asian Disaster Reduction and Response Network (ADRRN) (also a board member); Coalition for Global School Safety (COGSS); International Live Lessons Transfer Network (TeLLNet), and Disaster Preparedness Network Nepal (DPNet).

Continues NSET accomplishment ...



Laying foundation stone for CELC



Basement Slab Reinforcement Checking



Basement columns construction

of earthquake phenomena and helping communities to enhance their capacities on earthquake safety.

Features of the Learning Center

Earthquake Museum and Community Earthquake Learning Center with Information on National/Regional cooperation, policies, legislations, programs and activities related to Hazards & Disaster Risk Management as well as historic documents.

Community Disaster Mitigation Library & Media Center with well stocked books and literatures on Hazards and DRM, approximately 10,000 no. of books/ documents in earthquake hazard, earthquake engineering, risk reduction, preparedness, approximately 500 monographs, annual subscription of around 10 Scientific journal, around 1000 video documents and abundant reading space.

Children Earthquake Learning Center with a minimum of 9 m²

shaking room for demonstrating the effects of earthquake, Simplified models/ display of how to be safe during earthquakes, Touch screen computers with the information on earthquake, Model/Kits for demonstrating physical phenomena e.g. liquefaction, earth spread, landslide, flood, cloudburst, glacier lake outburst flood (GLOF), fire and other natural hazards, Disaster games such as "risk land"; and Publications on child literature, Audio-visual materials.

Mason Training Workshop as a live and equipped workshop for masons and construction workers, Shaking Table facility

Emergency Operation Center (EOC) cum Meeting Room that maintains satellite telephone connection (to outside world), Broadband Global

Area Network (BGAN)- mobile communication service, wireless LAN and emergency communication. The space is supposed to be utilized for multi-purpose such as conducting public hearing, orientation lectures to community people, seminars, workshops, audio-visual etc. for nearly 36 persons.

Dormitory for Scientists and Young Researchers

Yoga and Meditation Center

Office space for NSET, and

Models of Earthquake-resistant construction, Optimum heating and cooling; and Solar and wind energy collection for lighting and water heating.

Parking space for 14 vehicles and backyard shed for two wheelers.



Concreting for second floor slab



First floor slab casting



Polystyrene in between the column and infill wall

School Earthquake Safety Program (SESP)

NSET pioneered the School Earthquake Safety Program (SESP) in 1997 when it was included as a direct component of Kathmandu Valley Earthquake Risk Management Program (KVERMP) with the initiative of making schools safer against earthquakes that not only protects school children, but educates communities to protect themselves.

The program now is one of the successful ongoing programs of NSET in promoting community participation in all components of program activities and to raise earthquake awareness significantly. The masons trained during the program are now spreading the technology of earthquake-resistant construction in their communities and replicating the technology while constructing new buildings. Thus the process of replicating the



Evacuation Drill at Churiyamai Secondary School, Makawanpur under DRRSP/SESP Action Aid Nepal

training, orientation to students, teachers and community people has been implemented in Mahendra Adarsha Higher Secondary School, Imadol, Lalitpur; Sakala Devi Lower Secondary School, Kadambas, Dibyapuri, Nawalparasi; and Kali Devi Higher Secondary School, Kabhresthali, Kathmandu.

- Disaster Risk Reduction through School Project: Supported by DFID through Action Aid Nepal
- Pilot project under School earthquake safety program has been implemented at 8 schools of 4 districts of Nepal since September 2007 in order to improve seismic performance of existing school buildings, build capacity of teachers, students and community in disaster preparedness and incorporate disaster education in to formal curriculum. The program is running in districts of Makawanpur, Rasuwa, Banke and the Kathmandu valley.
- Developing A Strategy for Improving Seismic Safety of Schools in Nepal
- NSET has been developing National Strategy for improving seismic safety of schools in Nepal under the financial support from GFDRR/ the World Bank since August 2008. Pilot project has been implemented at Nawalparasi and Lamjung District under

which different level of training programs on school preparedness have been completed and survey of almost all of the public school buildings is in progress.

Up-coming Activities:

- 3 days Students Summit on Earthquake Safety 2009-2 to 4 August 2009, Kathmandu, Nepal
- Kobe Kathmandu Exchange Program-1 to 7 August 2009, Kathmandu
- Teachers Training on disaster safety (in association with SIDE Kobe and District Education Offices)- August 8 to 15 at Lamjung and Nawalparasi



Teacher of Churiyamai School, Makawanpur briefing about the emergency plan of the School

- 3 days ToT for teachers on Disaster preparedness in Schools - August 2009 at Lamjung and Nawalparasi under GFDRR/ World Bank
- 5 days Mason Training on earthquake resistant construction and retrofitting of buildings - September 2009, Lamjung and Nawalparasi under SESP, GFDRR/ World Bank
- Two-days Trained Teachers Workshop, September 2009, Kathmandu
- Earthquake Safety Awareness rally of students and teachers from Nawalparasi to Chitwan, Shake table demonstration-Gaindakot Nawalparasi on 15th August 2009.



Training to teachers on Earthquake Preparedness in Schools under GFDRR/ World Bank

construction methods employed in school building to construct their private houses would multiply in future to set a new technological culture in construction.

Ongoing activities:

- School Earthquake Safety Program under NERMP (USAID/ OFDA)
- School Earthquake safety program which includes earthquake resistant construction/ retrofitting of school buildings, mason

Community orientation on earthquake preparedness at Hetauda



NSET participations abroad

Mr. Narayan Marasini, Civil Engineer - NSET participated a meeting titled "Setting of International Disaster Volunteer's Network for Disaster Preparedness and Disaster Revitalization" during 15-16 November 2008, organized by Expo 2005 Volunteer Center Nagoya Japan; and funded by Global Industrial and Social Progress Research Institute (GISPRI). On 15th, around 100 community people participated in different light search and rescue practices at Toyota Community Learning Center at Toyota City to make prepared the community for future disaster. On 16th, Mr. Marasini shared the experiences, initiatives and lessons learnt from Nepal towards earthquake risk reduction and preparedness with community people, representative from different NGOs and Professors from Japanese Universities.

Mr. Ram Prasad Adhikary, Senior Civil Engineer - NSET participated a training on "Disaster Response and Recovery" during May 19-27, 2009 in Kuala Lumpur, Malaysia organized by Mercy Malaysia under Malaysian Technical Co-operation Program.

Earthquake Engineering Research and Training Division (EERT)

Major Projects led by EERT team in the Period of Dec 2008 to June 2009

- Seismic Vulnerability Assessment and retrofit design of Buildings
- Development of different training manuals and guidelines
- Comprehensive Disaster Management program (CDMP), Bangladesh
- Earthquake Vulnerability Reduction, Preparedness program (EVRP), Pakistan; and
- Technical assistance to Thimpu Valley Earthquake Risk Management Program (TVERMP), Bhutan

Major Activities Completed/ Implemented during the Period

- Submitted the draft guidelines in Feb 2009 to Ministry of Physical Planning and Works, GoN under the project ERKRPP titled "Seismic Vulnerability Evaluation Guideline for Private and Public Buildings (Pre-disaster Vulnerability Assessment)"; and "Seismic Vulnerability Evaluation Guideline for Private and Public Buildings (Post-disaster Vulnerability Assessment)". These guidelines are for assisting professionals and the authorities in Nepal to implement qualitative and quantitative assessment (Pre-disaster and Post-disaster) of structural earthquake vulnerability of public and private buildings in Nepal.
- Submitted the draft guideline titled "Guideline on Seismic Vulnerability Evaluation and Retrofit Design of Buildings in Bhutan" in April 2009 under contractual agreement between Standards and Quality Control Authority (SQCA), Ministry of Works and Human Settlement, Royal Government of Bhutan and NSET under "Short Term Technical Advisor for the follow up to the Thimphu Valley Earthquake Risk Management Project (TVERMP)". The guideline aims for assisting professionals and the authorities in Bhutan for seismic vulnerability assessment, retrofit design and implementation of public and private buildings in Bhutan.
- Submitted a report on "Development of Fragility Functions for Non-Engineered Buildings in Bangladesh", in May 2009 using Hazus methodology under Comprehensive Disaster Management Program (CDMP)

in joint collaboration of NSET with AIT and ADPC. The developed fragility functions can be used for earthquake risk assessment of cities in Bangladesh.

- Both qualitative and quantitative seismic vulnerability assessment and retrofit design of buildings possessed by various organizations that include the buildings of British Embassy and American Embassy in Nepal with implementation of seismic strengthening completed in one of the residences to be occupied by American Embassy staff in May 2009.
- The training on the seismic vulnerability assessment of school buildings as part of "Earthquake and Tsunami preparedness in Dhaka, Chittagong and Sylhet cities of Bangladesh" under Comprehensive Disaster Management Program (CDMP) implemented by the Ministry of Food and Disaster Management (MoFDM), Government of Bangladesh with financial support from UNDP, UK Department for International Development-Bangladesh (DFID-B) and the European Commission. The intent is to reflect the technology transfer process of the assessment of buildings to organizations in Bangladesh.
- Qualitative as well as quantitative seismic vulnerability assessment, retrofit design and implementation of apartment building in Thimphu, Bhutan as per the agreement between NSET-Nepal and Standards and Quality Control Division, The Royal Government of Bhutan.
- Structural design of school building "Shayme Wangphel Secondary School" at Syaphru Besi VDC-Ward no. 1, Rasuwa, Nepal in April 2009.
- Conducted workshop on "Guidelines on Seismic Vulnerability Assessment and Retrofit Design for Earthquake Risk Reduction", June 2009, organized by Standard and Quality Control Authority

(SQCA), The Royal Government of Bhutan. The workshop was for promotion of guideline and effective implementation of retrofit design for earthquake risk reduction in Bhutan.

- Finalization of Earthquake loss estimation of Mansehra and Muzaffarabad Cities of Pakistan under Earthquake Vulnerability Reduction and Preparedness program (EVRP), Pakistan and conduction of "Earthquake Scenario and Action Planning



Work in Progress, placing reinforcement bars on raft, beam, column and shear walls in Thimpu

Workshops" in Muzaffarabad and Mansehra in March 2009.

- Preparation and submission of outline for earthquake scenarios documents of Mansehra and Muzaffarabad Cities under EVRP Pakistan
- Finalization of Hospital Preparedness for Emergencies (HOPE) course, a regional course for Hospital Administrators, Doctors/Nurses and Engineers under Program for Enhancement of Emergency Response (PEER) programs, March 2009
- Conducted various orientation programmes such as "Earthquake Risk Reduction and Preparedness in Nepal", May 2009, organized by Department of water induced disaster prevention (DWIDP), Ministry of Local Development, Nepal; and "Water Supply Management on Earthquakes", February 2009, organized by Advanced Civil Engineering Student's Society, Nepal.
- Attended Key International Meetings and made presentations on NSET works
- Workshop on Partnerships for Structural and Non-Structural Safety of Health Facilities in Emergencies, Hammamet, Tunisia 17 to 19 February 2009; Presentation on "Structural and Non-structural safety of Hospitals in Nepal"
- Meeting of the Asia Pacific Task Force on Hospitals Safe from Disasters, 5-6 February, 2009; Presentation on "Health Sector Preparedness in Nepal"



Jacking of the Column for earthquake-resistant building in Thimpu

The Program for Enhancement of Emergency Response (PEER)

Success Story of PEER Stage 2 (2003-2009):

The Program for Enhancement of Emergency Response (PEER) is a regional training program initiated by the United States Agency for International Development, Office of U.S. Foreign Disaster Assistance (USAID/OFDA). PEER is directed towards strengthening and institutionalizing capacities in emergency and disaster response in the six participating Asian countries

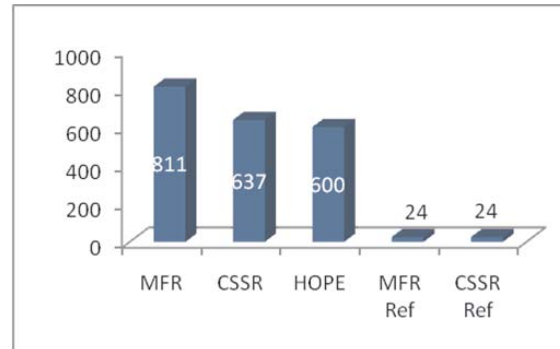
PEER Stage 1 (1998-2003) was managed by the Asian Disaster Preparedness Center (ADPC), Bangkok, Thailand. PEER Stage 1 targeted four of Asia's earthquake-prone countries, namely, India, Indonesia, Nepal and the Philippines.

PEER Stage 2 (2003-2009) is managed by NSET-Nepal, at no cost extension on the sixth year of implementation. PEER Stage 2 includes the four initial member countries, with the addition of Bangladesh and Pakistan. Bangladesh was inducted into the PEER program right from 2003, while Pakistan was added to the program in 2007, after the Kashmir Earthquake of October 2005.

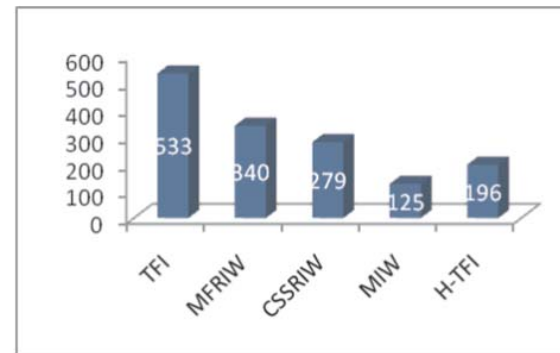
The above program objectives are accomplished through the conduct of PEER core courses, i.e. MFR, CSSR and HOPE; developing and maintaining a cadre of PEER instructors through instructor development trainings, and strengthening coordinating network of emergency responders through the planning meetings, networking meetings, and instructors' conferences.

The success of Stage 2 is evidenced by the fact that even the new entrants to PEER program, namely, Bangladesh and Pakistan, could internalize the process at par with the initial four PEER countries in terms of development of sufficient number of national instructors in each of the faculty of MFR, CSSR and HOPE, together with nationalization of the courses and also institutionalization of the process in-country.

One of the biggest contribution of PEER has been the concept of Partial Funding Assistance Program (PFAP), whereby, the national institutions/government agencies plan the PEER courses as part of their annual program, allocate budget and the Program tops up



PEER Core Courses Graduates in the Region (Phases 1 and 2)



PEER IW Graduates in the Region (Stage 1 and 2)

PEER EVENTS MAY - OCTOBER 2008

PEER Stage 3 commenced

NSET has been awarded the contract under International Competitive Bidding for the implementation of MFR and CSSR under the Program for Enhancement of emergency Response (PEER) Stage 3 by USAID/OFDA, in six countries namely Bangladesh, India, Indonesia, Nepal, Pakistan and the Philippines. PEER Stage 3 is five year program commencing from April, 2009 to March, 2014.

Below are the names of events conducted in PEER countries.

Events	Event Level	Date
Bangladesh		
HOPE	National	Nov 24-27, 2008
India		
MFR	PFAP	Nov 3-15, 2008
CSSR	PFAP	Nov 19-26, 2008
TFI	PFAP	Dec 5-9, 2008
MFR IW	PFAP	Dec 12-16, 2008
CSSR IW	PFAP	Dec 21-27, 2008
Nepal		
HOPE	National	Nov 11-14, 2008
H-TFI	PFAP	Feb 23-27, 2009
Pakistan		
HOPE	National	Dec 15-18, 2008
Philippines		
MFR RC	Regional	Jan 12-16, 2009
CSSR RC	Regional	Jan 21-24, 2009

PFAP - Partial Funding Assistant Program *TFI - Training for Instructor*
CSSR - Collapsed Structure Search and Rescue *ASAR - Advanced Search and Rescue*
MFR - Medical First Responder *MFR IW - Medical First Responder Instructors Workshop*
HOPE - Hospital Preparedness for Emergency

the national initiatives by providing partial funding mainly in the form of expatriate Course Monitors, Course Coordinators, Instructors and limited funds. PFAP has largely been successful, evidencing the positive result of the approaches towards nationalization of the PEER processes in different countries.

PEER Core Courses and IW Graduates in the Region

PEER has developed a pool of 811 graduates for Medical First Responder (MFR), 637 for Collapsed Structure Search and Rescue (CSSR), and 600 for Hospital Preparedness for Emergencies (HOPE); Refresher Test Courses for MFR and CSSR had 24 participants each, as illustrated in the figures.

PEER has developed a pool of 533 graduates for Training for Instructors (TFI), 340 for MFR Instructors Workshop (MFR IW), 279 for CSSR Instructors Workshop (CSSR IW), 125 for Master Instructors Workshop (MIW) and 196 for HOPE TFI (H-TFI).



Comprehensive Disaster Management Program of Bangladesh

Asian Disaster Preparedness Centre (ADPC) in partnership with National Society for Earthquake Technology-Nepal (NSET), OYO International Corporation (OIC)-Japan, Asian Institute of Technology (AIT)-Thailand and Bangladesh Disaster Preparedness Centre (BDPC) has been engaged under the Comprehensive Disaster Management Program (CDMP) to provide technical services for the execution of three components:

- Seismic hazard and vulnerability mapping of Dhaka, Chittagong, and Sylhet City Corporation areas
- Training, advocacy and awareness with regard to earthquake and tsunami hazard
- Contingency Planning for Dhaka, Chittagong and Sylhet city corporation areas



During the engineers training in Bangladesh



Under the Training, Advocacy and Awareness component of the CDMP, NSET and ADPC jointly organized the Training of Trainer (TOT) on earthquake resistant construction for the engineers and junior engineers from ADPC Bangladesh, City Corporation of the Dhaka, Sylhet and Chittagong and different construction company from Dhaka City. 24 participants were participated on this 5 day training held from 8th to 12th Jan 2009.

After completion of this training, four training courses (2 in Dhaka, 1 in Chittagong and 1 in Sylhet), were conducted for masons and bar benders on earthquake safe construction. The instructors for this training were selected from the participants of the TOT on earthquake resistant construction.

Continues Earthquake Safety Day 2009 ...



Mrs. Astha Laxmi Shakya franked the special envelope published to mark the 11th Earthquake Safety Day and also released a pictorial booklet titled "भूकम्पीय जोखिम तथा पूर्वतयारीका उपायहरु" (Earthquake Risk and Preparedness) jointly published by the DUDBC and UNDP; and also a story book for children titled "बुईचालोको बारेमा हजुरआमाको कथा" (Grandmother's Stories on Earthquake) written by the renowned writer Mr. Santa Das Manandhar and published by NSET with the financial assistance from UNICEF. On the occasion, Government officials, UN representative, and organizing members including NSET had made their invaluable remarks of the day.

An Earthquake Safety Exhibition was organized to disseminate information regarding earthquake risk reduction measures. The Exhibition was inaugurated by the Chief Guest. Distinguished guests then visited all the 26 Stalls of the Exhibition. The exhibition ran for four days and it was estimated that around 10,000 people observed the exhibition which was widely covered in the electronic and print media.

As a component of 11th ESD celebration, a Sarvajanic Sunwai (Public Hearing) program focused on earthquake risk reduction was held at Khula Manch Tundikhel Kathmandu and telecasted by Kantipur Television on 15th January 2009. Government officials Mr. Thir Bahadur GC, Mr. Amrit Man Tuladhar and Mr. Som Nath Subedi; Mr. Shyam Sundar Jnawali from Action Aid Nepal; and Mr. Amod Mani Dixit from NSET were the key speakers. More than 500 people gathered to participate the program.

A symposium on "Experience in Disaster Risk Reduction and Response" was organized in Kathmandu on 13-14 January with the major objective to share the experiences and generate new ideas towards disaster risk reduction and

response between all stakeholders mainly among policymakers, decision makers, academicians and professionals. Altogether 23 papers were presented in 5 thematic areas by the experts from different institutions both at the national and international level.

Earthquake Awareness Walkathon was organized as one of the major program on the 11th Earthquake Safety Day. The walkathon was flagged off by Marathon Runner Mr Baikuntha Manandhar at Bhugol Park and ended at another Earthquake Memorial place in Patan Durbar Square. Around five hundred people participated and 10 persons from among those completing the course were selected through lucky-draw and offered the prizes.

Earthquake Memorial Meeting was organized by Lalitpur Sub Metropolitan City in the Earthquake Memorial Monument situated at Patan Durbar Square, Lalitpur.

Earthquake Awareness Rally was organized in Kathmandu to raise the public awareness on earthquake risk reduction. The rally comprised



Glimpses of the E





Comprehensive Risk Assessment and Action Planning for two wards of Triyuga Municipality, Udayapur

A two day program "Scenario and Action Planning Workshop on Comprehensive Risk Assessment And Action Planning for Ward no. 2 and 5 of Triyuga Municipality, Udayapur" was organized during 11-12 February 2009 by National Society for Earthquake Technology- Nepal (NSET) and Triyuga Municipality with assistance of Navapratvat Samaj Sewi Pariwar, a local NGO. The workshop was conducted as one of the components of the project: Comprehensive Risk Assessment and Action Planning in Ward No. 2 and 5 of Triyuga Municipality, Nepal; an additional initiative by Action Aid Nepal under the project "Surakshit Samudaya: Building Safer Community through Disaster Management Initiative" being supported by European Commission through its Humanitarian Aid department under the Fourth DIPECHO Action Plan for South Asia.



Scenario and Action Planning workshop in Triyuga, CRAAP

of Nepal Army band, Nepal Scout, Nepal Police, Nepal Armed Police, Schools, National and International Agencies working in the field of Disaster Risk Reduction.

"Duck Cover and Hold" has been accepted worldwide as the first step to be taken by every individual during an earthquake to be safer from physical injury and possible death. In collaboration with Radio Nepal, and other many local FM stations, a nationwide exercise was performed on 15th Jan at 14:24hrs for a minute commemorating 1934 Earthquake. The all participants of national meeting including distinguished guests and others performed the exercise.

Nepal Red Cross Society organized First Aid Demonstrations on each day during the exhibition which covered spinal and bone fracture, head and internal injury; and bleeding and faint.

Two Street Dramas were organized during the Earthquake Safety Exhibitions; one by the well known artists from "Sarvanam Natya Samuha" and the other was organized by "Lumanti".

The Shake Table Demonstration has been one of the best attractions from the first earthquake safety day. This was observed by around 500 persons at the site and the entire demonstration program was telecasted live by Sagarmatha TV & Radio Nepal.

"Lumanti" organized a Signature Campaign to create awareness on the disaster risk reduction. The group also presented a memorandum to the Chief District Officer of Kathmandu to enhance the disaster risk reduction activities in the district including the signatures of those who supported the program by signing it.

On the occasion of 11th ESD-2009, newly constructed Earthquake Resistant School Building and the technology has been handed over to the school community of Mahendra Shanti Secondary School at Balkot, Bhaktapur. This is the 33rd school where SESP of NSET has been implemented.

Activities outside Kathmandu Valley

- As per the instruction from the Ministry of Home Affairs, Earthquake Safety Day was observed in all the 75 districts with various activities of awareness and memorial meetings.
- All the 25 Divisions of the Department of Urban Development and Building Construction organized Earthquake Safety Day with various programs. Janakpur Division office has decided to conduct a masons training program and a shake table demonstration at a suitable time.
- An earthquake simulation exercise was performed in Butwal by group of local NGOs working in the Disaster Risk Reduction (DRR).
- Co-Action Nepal organized a Workshop on "Earthquake Safety" in Bharatpur Chitwan.



ESD programs 2009



Mr. Ram Prasad Bhattarai, PVA expert from NSET made a presentation on the outcomes of Participatory Vulnerability Assessment conducted in different communities of ward no. 2 and 5 of the municipality. The disasters prioritized during the PVA were reviewed at the end of the presentation. Likewise, Mr. Ganesh Kumar Jimjee, Risk Assessment Expert/Team Leader of the project, presented the estimated losses due to different possible earthquakes in Triyuga Municipality, Ward no. 2 and 5. Both presentations were followed by the interactive discussions, queries and clarifications. Later day, Mr. Bijay Upadhyay, Earthquake Technology Training Expert from NSET presented the principles and process of action planning. The participants were divided in two groups representing from ward no. 2 and 5 then further divided in three groups of each. Then each group was requested to make action plan for reduction of risk due to different disasters i.e. flood, landslide, fire, epidemics, earthquakes and storm. Finally, each group came up with plans including, activities, timeline (start and end), involving agencies, estimated budget etc.

Views from the Frontline on the progress of HFA implementation

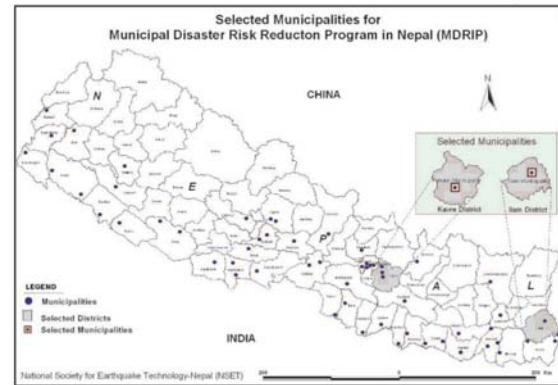
National Society for Earthquake Technology (NSET) is implementing the 'Views from the Frontline (2008-2009) Project' as the National Coordinating Organization (NCO) for Nepal. 'Views from the Frontline' is an action-research project undertaken by civil society stakeholders in conjunction with government bodies. It aims at measuring progress towards implementation of the Hyogo Framework for Action (HFA) at the local level through the participation of different stakeholders across developing countries and regions. This independent review is being coordinated by the Global Network for Disaster Reduction (GNDR) and implemented by civil society actors. It seeks to complement the biennial national level HFA Monitoring and Progress Review being facilitated and coordinated by the UN-ISDR.

The main goal of 'Views from the Frontline' is to support the effective implementation of the HFA to build the resilience of vulnerable people and communities at-risk to disasters. The project is composed of two main elements: research and learning; The research element focuses on face-to-face interviews or self-evaluations by local government officials, civil society organizations and local community representatives to assess their perceptions on progress made towards disaster resilience and risk reduction as part of the HFA five Priorities for Action. The learning phase of the project aims to then use the research findings to develop consensus on policy positions and associated recommendations to take forward to national, regional and international levels -including the Global Platform-DRR review process.

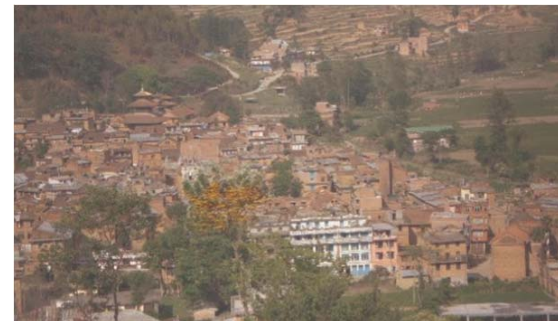
Apart from the role of NCO, NSET was also given the responsibility of the overall coordination, management of the review process and finally the development of the regional report of the Region (South Asia and Southeast Asia), as a council member of Asian Disaster Reduction & Response Network (ADRRN) which is identified as the Regional Coordinating Organization (RCO) for the region.

"Municipal Disaster Risk Reduction Program In Nepal" (MDRIP)

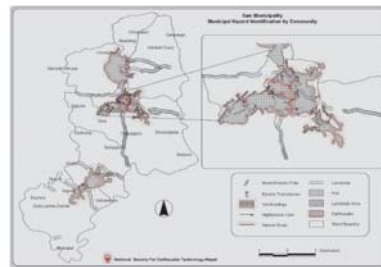
NSET has developed and adopted Community Based Municipal Disaster Risk Reduction Approaches for the existing municipalities and other fast growing urban centres of Nepal. It envisages preparing a generic Earthquake Risk Atlas of the existing 58 municipalities of Nepal within the coming three to five years. NSET has already done some works pertaining to gathering information for the atlas. It has also assisted around a dozen municipalities to initiate disaster risk reduction at the municipal level and has received positive response. "Municipal Disaster Risk Reduction Program In Nepal" (MDRIP) is conceptualized and implemented as a continuous process which will add on to the aim of creating urban centres capable of effective and efficient disaster reduction and response.



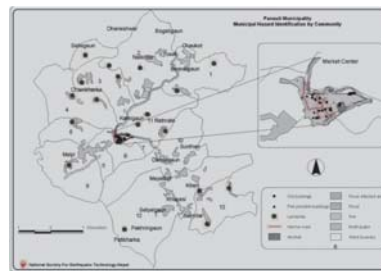
Selected municipalities for Municipal Disaster Risk Reduction Program in Nepal



View of Panauti



Participatory Hazard Map of Ilam



Participatory Hazard Map of Panauti

Activities implemented under MDRIP included Preparatory works at the concerned municipality, Risk Assessment, Disaster Imagination Game (DIG) and Vulnerability Tour in Ilam and Panauti, Kick off Meeting and Hazard Mapping Workshop, Municipal Level Risk Reduction and Response Master Plan, Capacity Building Programs like Training of Engineers & Masons Training Program, Community Education and Awareness; and Model Demonstration of Earthquake Risk Reduction.



Training on Administrative & Financial Management

Mr. Tika Sharma, Director - Finance attended two weeks Training Seminars conducted by Center for Public Management in Arlington, Virginia at Holiday Inn Rosslyn, USA.

The program incorporated the training modules:

- USAID Administrative Compliance Requirements session, May 11-13, 2009.
- Financial Management of USAID Awards session, May 14-15, 2009
- Basics of USAID Contracting session, May 18-19, 2009
- Introduction to USAID's Cooperative Agreements session, May 20-21, 2009
- Obtaining USAID Contracting/Agreements Office Approval session, May 22, 2009

The training seminars were conducted in accordance with the standards of the National Registry of CPE Sponsors. CPE Credits were granted based on 50 minute hour.

Nepal in the earthquake zone

Geologically, Nepal straddles on the boundary of the Indo-Australian and Eurasian tectonic plates. These plates are moving towards each other at the rate of 2cm per year – as part of the geological process. The Indo-Australian plate is "diving" beneath or pushing under the Eurasian plate, at a rate of about 3cm per year. The geological movements explain the formation of the Himalayas and are also reasons for sudden and violent jolts in the rock formations at the earth's interior that can be felt on the surface. These jolts are what we know as earthquakes.

Kathmandu Valley – the seat of Nepal's capital – suffered a devastating earthquake (Magnitude 8.4 on the Richter scale) in the early afternoon of January 15, 1934. The shaking damaged 126,355 buildings,

of which around 80,893 houses were completely destroyed leading to 8,519 deaths. The government had spent NRs. 206,500 on relief from a newly-established Earthquake Relief Fund in the Kathmandu Valley area. Another earthquake (magnitude 6.5) in Bajhang District in Far-west Nepal killed about 180 people and damaged about 40,000 homes in

1980. Still another earthquake (magnitude 6.6) in Udayapur District in East Nepal had killed over 721 people and 1,600 domesticated animals in 22 of Nepal's 75 districts. The tremor damaged around 60,000 houses. The direct total loss caused by the Udayapur earthquake was estimated at NRs. 5 billion.

Major earthquakes in Nepal

Year	Epicerter	Infrastructures lost Collapse	Damages	Casualties Injuries	Death
1993	Jajarkot	40% of buildings affected		N/A	N/A
1988	Udayapur	22,328	49,045	721	6,453
1980	Bajhang	12,817	13,298	46	236
1934	Bihar/Nepal	80,893	126,355	8,519	N/A

Source: NSET 2004. Inspect Your House for Earthquake Safety. Draft

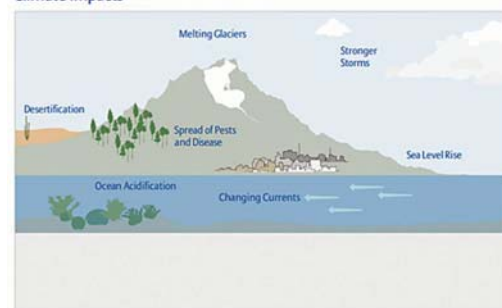
Climate change could displace 25 million by 2010

By next year - that's how soon around 25-50 million people will be displaced by climate change as it unleashes more natural disasters and affects farm output, says a senior UN researcher. Northern India will be among the worst affected in the long term. "Climate change will displace 25-50 million people by next year. The situation will be the worst in the poorer countries," says Koko Warner of the UN University's Institute for Environment and Human Security. "Most people will seek shelter in their own countries while others (will) cross borders in search of better odds. Societies affected by climate change may find themselves locked into a downward spiral of

ecological degradation, towards the bottom of which social safety nets collapse while tensions and violence rise."

Warner and her colleagues have been pushing delegates from 182 countries gathered here for a meeting June 1-12 to include migration among the issues they consider as they prepare for a climate summit in Copenhagen this December. "As climate change increases the frequency and intensity of natural hazards such as cyclones, floods and droughts, the number of temporarily displaced people will rise," Warner told IANS in an interview. "This will be especially true in countries that fail to invest

Climate Impacts



now in disaster risk reduction and where the official response to disasters is limited."

-Source: IANS



The second session of the Global Platform is scheduled to take place in Geneva, Switzerland during 16-19 June 2009 at the Centre International de Conférences de Genève (CICG). This program will feature an impressive 42 thematic special events, which will complement and support the high-level plenary sessions. The events will focus on different aspects of disaster risk reduction, including climate change adaptation as one of the key feature of the overall Global Platform discussions.

"The special events give all partners a chance to showcase their projects, achievements and good practices", says Christel Rose from UNISDR

who coordinates all the special events. "They are both top-down and bottom-up initiatives and are highly relevant to the implementation of the Hyogo Framework for Action: Building the Resilience of Nations and Communities to Disasters" continues Ms Rose.

The special events' formats are multi-faceted and will provide room for active discussions. The 'Hyogo Hard Talk' event, for example, will take on the shape of a reality show. Organized by the Bond Group, a network of Non-Governmental Organizations, a rigorous debate on the success of the Hyogo Framework for Action will take place.

Ms. Nisha Shrestha, Disaster Risk Communication Officer from NSET is participating the session.



Bringing together different stakeholders such as policymakers, NGOs and international organizations like the World Bank and UNICEF among many others, the outcomes of the special events will inform the overall Chair's Summary of the 2009 Global Platform and are expected to serve as a solid basis for the Copenhagen Conference discussions on Climate Change Adaptation and Disaster Risk Reduction.

सृजना

कविता

प्रकोप

भूकम्प आएको बेलामा ढोका खोलु पछि
मलाई पनि थाहा छैन के के असर गर्छ ?
हामी सबै मिलेर एउटै प्रस्ताव राखौं
प्रकोपलाई कम गर्न सबै जना लागौं ॥

दुषित पानी खायो भने के हुन्छ र कसलाई ?
यसबारे अलि अलि बुझाइदिनुस् हामीलाई
दुषित पानी खायो भने लाग्छ रोग आउँ
रोग लाग्यो भने हामी स्वास्थ्य चौकी जाउँ ॥

पहिरो किन जान्छ हामीलाई यो नि थाहा छैन ?
यति कुरा फेरि पनि बताइदिनुस् लौ न ?
वनजङ्गल काट्यो भने बाढी पहिरो आउँछ ।
यसले गर्दा हामी सबको घरहरु बगाउँछ ॥

हामी सबै नेपाली हौं एकजुट बन्नुपर्छ
यिनी सबै कुरामा सचेत हुनुपर्छ ।
मानव निर्मित प्रकोपलाई हटाउनु पर्छ
हटाएनौ भने हामीलाई रोगहरु सर्छ ।

नाम: कृष्ण बहादुर हमाल

कक्षा: ८

विद्यालय: जन कल्याण मा.वि., बाँके

बनौं होसियार

पूर्वतयारी गर्न थालौं भूकम्प आउँछ रे ।
प्राथमिक औषधी किन्न थालौं आवश्यक पर्छ रे ॥

सुरक्षित ठाउँ हेरिराखौं ढिला नगरी ।
आफ्नो सुरक्षा आफैँ गरौं कसैको भर नपरी ॥

ज्यान प्यारो आफ्नै हुन्छ सुरक्षा गर आफैँले ।
भूकम्प आउँदा टाउको लुकाऔं सबै भन्दा पहिले ॥

घर भित्र छौं भने बस सुरक्षित ठाउँमा ।
नत्र भने लाग्न सक्छ चोट जिउँमा ॥

गाडीमा तिमी छौं भने रोक छेउपट्टि ।
रोकी राख त्यही निर बस नआत्ति ॥

भूकम्प बन्द नहुन्जेल चलाउन हुन्न गाडी ।
भूकम्प बन्द भएपछि खोज परिवार अगाडि ॥

आजै देखि गर्न थालौं भूकम्पको पूर्वतयारी ।
भूकम्प आउनु पूर्व बनौं सबै होसियारी ॥

नाम: मिनु श्रेष्ठ

विद्यालय: गम्भीर समुन्द्र सेतु मा.वि.

ईमाडोल, ललितपुर

जिज्ञासा

प्रश्न: भुइँचालो कस्तो खालको प्रकोप हो ? यसबाट बच्न के के गर्न सकिन्छ ? - विष्णु धिताल, पनौती नगरपालिका, सुनथान, काभ्रे

उत्तर: भुइँचालो प्राकृतिक प्रकोप हो । तर यो बाढी पहिरो जस्तो कुनै मौसममा नआएर जुनसुकै समय कुनै पनि ठाउँमा आउन सक्ने प्रकोप हो । भुइँचालोलाई सामान्य रुपमा भन्दा भूकम्प भनिन्छ अर्थात भू भनेको जमिन, कम्प भनेको हल्लिने । जमिन हल्लिने प्रक्रियालाई हामी सामान्य रुपमा भूकम्प भन्ने गर्दछौं । खासगरी नेपालको भौगोलिक अवस्थिति भारतदेखि अस्ट्रेलियासम्मको एउटा आधार चट्टान र अर्कोतिर यूरेशियन भूभागको आधार चट्टानको बीचमा पर्ने भएकाले ति दुई चट्टानहरु एकअर्कातिर नजिकिने क्रममा

हल्लिँदा हाम्रो मुलुकमा भुइँचालो आउने गर्दछ । भुइँचालोबाट नेपाल जोखिमयुक्त ठाउँमा पर्ने कुरा थाहा पाइसकेपछि यसबाट बच्ने तथा क्षति कम गर्ने उपाय पनि छ । भुइँचालोलाई बाढी-पहिरो जस्तो रोक्न सकिन्दैन । भुइँचालोबाट आउने प्रकोपको क्षति न्युनिकरण गर्न तीनवटा मन्त्र याद राख्नुपर्दछ । पहिलो मन्त्र थप जोखिम नबढाउने, दोश्रो मन्त्र भनेको विद्यमान जोखिमलाई घटाउने र तेश्रो मन्त्र चाहिँ सम्भावित घटनाको लागि पूर्वतयारी गर्ने, यी तीन मन्त्र सधैँ ख्याल गर्नु जरुरी हुन्छ ।

थप जोखिम नबढाउने भन्नाले भुइँचालो जाँदा संरचनाहरु नष्ट हुने गर्दछ, यस्ले गर्दा संरचनाहरुलाई थप जोखिम हुनबाट बचाउन सकिन्छ । एउटा भनाइ नै छ, भुइँचालोले आफैँ मान्छे मादैन, मानिसले बनाएको कमजोर संरचनाका कारण नै मान्छे मर्ने गर्दछ । अब बन्ने घरहरु कमजोर नबनाऔं । भूकम्प प्रतिरोधात्मक बनाऔं । भूकम्प आउनुभन्दा अगाडि पनि तयारी गर्न सकिन्छ, यसलाई पूर्वतयारी भनिन्छ । भूकम्प आउनु अघि नै सुरक्षित ठाउँको पहिचान गर्नुपर्दछ । जाने बुझेका मानिससँग यसका बारेमा सोध्नुपर्छ ।

धितालजी, तपाईं अझ बढी जान्न चाहनुहुन्छ भने भूकम्प प्रविधि राष्ट्रिय समाज-नेपालमा सम्पर्क राख्न सक्नुहुनेछ । यहाँ विज्ञहरुबाट जानकारी लिनुका साथै तपाईं हाम्रो प्रकाशनहरु अध्ययन गर्न पनि सक्नुहुनेछ ।

- गणेश कुमार जिमी

प्रकोप व्यवस्थापक एवं भूगोलविद, भूकम्प प्रविधि राष्ट्रिय समाज-नेपाल (एनसेट)

कुराकानी

गएको मंसिर महिनामा भूकम्प प्रविधि राष्ट्रिय समाज-नेपालद्वारा काठमाडौं महानगरपालिका वडा नं. १७ क्षेत्रपाटीका गृहिणीहरूलाई भूकम्पीय जोखिम न्युनिकरण सम्बन्धी तालिम प्रदान गरिएको थियो । विशेष गरी भूकम्प प्रतिरोधात्मक भवनका बारेमा दिइएको यो तालिमबाट सहभागीले के कतिको फाइदा उठाए त ? यसै सेरोफेरोमा रहेर रेडियो सगरमाथाबाट प्रसारण हुने कार्यक्रम भूकम्पीय सुरक्षाका लागि कार्यक्रम उत्पादक निमेष अधिकारीले तालिममा सहभागी गृहिणी संगिता महर्जनसँग कुराकानी गर्नु भएको छ । कुराकानीको सारसंक्षेप:

निमेष: तपाईं गृहिणी हुनुहुन्छ, घरमै बसेर काम गर्नुहुन्छ, भूकम्पीय जोखिम न्युनिकरण सम्बन्धी ज्ञान तपाईंहरू गृहिणीले जान्नु कतिको आवश्यक ठान्नुहुन्छ ?

संगिता: पुरानो बनाइ नै छ नि, एउटा घरमा एउटा गृहिणी शिक्षित भइन् भने त्यो पूरै परिवार शिक्षित हुन्छ । म अलि पढे लेखेको गृहिणी हुं, हामीजस्ता गृहिणीलाई यस्ता खालको तालिम दिइयो भने अवश्य फाइदा हुन्छ । व्यक्तिगत रूपमा मात्र नभएर परिवार र समाजका लागि पनि हाम्रो ज्ञान उपयुक्त हुन्छ । त्यसैले हामी गृहिणीलाई तालिम एकदमै आवश्यक छ ।

निमेष: तालिममा तपाईंहरूले के के सिक्नु भयो ?

संगिता: तालिममा हामीहरूले भूकम्प भनेको के हो, यो कसरी जान्छ र यसबाट बच्ने उपायहरू के के हुनसक्छ । भूकम्प आइसकेपछि के के गर्नुपर्दछ जस्ता कुराहरू सिक्छौं । त्यसैगरी तालिममा भूकम्प आउनु अघि के के कुरामा ध्यान दिनु पर्दछ, भूकम्प आइरहेको बेलामा कुन कुन कुरामा ख्याल गर्नुपर्दछ भन्ने कुरा पनि सिक्छौं । साथै भूकम्प प्रतिरोधात्मक भवन (घर) कसरी निर्माण गर्नुपर्छ भन्ने ज्ञान पनि तालिमबाट प्राप्त गर्यौं ।

निमेष: तपाईंले सिकेको अनुसार चाहिँ भूकम्प जानु अघि के के कुरामा तयारी

गर्नु पर्दोरहेछ ?

संगिता: पूर्वतयारीमा चाहिँ हामीले भट्टपट भोला अर्थात् Go Bag तयारी गर्न सक्छौं । त्यसैगरी पूर्वतयारीमा चाहिँ विभिन्न तालिम लिनु पर्ने कुरा पनि तालिम प्रशिक्षकहरूले बताउनुभयो । भूकम्पसम्बन्धी तालिममा आफुले सिकेका कुरालाई आफ्नो टोल छिमेक, साथीभाई इष्टमित्र लगायत जाने बुझेकालाई बताउनु पर्नेरहेछ, अर्थात् जनचेतना फैलाउनुपर्दछ ।

निमेष: पूर्वतयारी त तपाईंले भनिहाल्नु भयो । भूकम्प गईसकेपछि चाहिँ के के तयारी गर्नु पर्नेरहेछ ?

संगिता: पूर्वतयारी भन्नाले खुल्ला मैदान, सुरक्षित ठाउँको जानकारी लिने, भूकम्प गएको बेलामा खुल्ला अथवा सुरक्षित ठाउँमा जाने अरुलाई पनि जान लगाउने । त्यसैगरी थुँडा टेकी गुडुल्किएर ओत लागी समात्ने विधि सिक्ने । यो विधि भन्नाले आफ्नो टाउको हातको माध्यमबाट बचाउने हो । त्यसैगरी आफ्नै घरको सुरक्षित ठाउँको पहिचान गरी नआतीकन आफ्नो र आफ्नो परिवारको सुरक्षा गर्ने गर्नुपर्दछ ।

निमेष: तपाईंले तालिम लिनुभन्दा अघि भूकम्प प्रतिरोधात्मक घर कसरी निर्माण गर्ने भन्ने थाहा थिएन । अब तपाईंले भूकम्प प्रतिरोधात्मक घर निर्माण गर्न के

गर्नुपर्छ भन्ने कुरा थाहा पाउनु भयो त ?

संगिता: गाह्रो भएको घर र पिलरवाला घरमा भूयालको आकार र अन्य भाग कसरी बनाउँदा सुरक्षित भइन्छ, कस्तो डण्डीको प्रयोग कसरी गरेमा सुरक्षित घर बन्छ, प्लाष्टरवाला घरमा मसला अथवा बालुवा र सिमेन्टको भाग कति समयमा कसरी मिलाउनुपर्छ भन्ने जान्यौं । घरमा कोठाको भित्तामा राखिएका सजावटका सामान तथा दराजहरू भूकम्प जाँदा कसरी व्यवस्थित गर्ने लगायतका कुरा मैले तालिमपछि जानेको छु ।

निमेष: गैर-सरकारी संस्थाहरूले मात्र यस्ता खालका तालिमहरू दिइरहेका छन् । सरकारी निकायबाट यस्तो खालको तालिम हनु कतिको जरुरी ठान्नुहुन्छ ?

संगिता: गैर-सरकारी संस्थाहरूले गरेजस्तै सरकारी निकायबाट पनि तालिमको आयोजना हुनुपर्दछ । सरकारी तवरमा यस्ता काम गर्नु एकदम आवश्यक छ । अहिले भन काठमाडौंमा यति तीव्र रूपमा नयाँ घरहरू निर्माण भइरहेकाछन् । यो समयमा सरकारले पनि एकदम धेरै ध्यान दिनुपर्ने कुरा हो, किनभने भोलि पर्सि भूकम्प गइहाल्यो भने यहाँ धेरै चीजको विनाश हुन्छ । त्यही भएर सरकारले गम्भीर रूपमा सोच्नु पर्नेहुन्छ ।

NEW MEMBERS OF NSET FAMILY



Mr. Sudeep Hada
Structural Engineer



Mr. Radha Krishna Mallik
Structural Engineer



Mr. Ranjan Dhungel
Civil Engineer



Mr. Bal Krishna Khadgi
Construction Technician



Ms. Rachana Kansakar
Draft Person



Ms. Omkala Khanal
Office Assistant/Librarian



Mr. Nischal Sedhain
Office Assistant



Mr. Ujjal Dhakal
Office Boy



Ms. Mina Shrestha
Cleaner



Mr. Ichcha Ram Parajuli
Assistant IT Technician



Mr. Khadga B. Sen Oli
Advocacy and Outreach Manager

QUAKE MONITOR

Year	Magnitude	Location	Remark
10/11/08	6.3	Northern Qinghai, China	Three people injured, several buildings damaged and utility lines disrupted at the Dameigou Coal Mine
16/11/08	7.3	Minahasa, Sulawesi Indonesia	At least six people killed, 77 injured, 10,000 people displaced, 1,000 buildings damaged
22/11/08	6.4	Southern Sumatra Indonesia	No reports of damage or casualties
22/11/08	6.4	Southeast Of The Loyalty Islands	No reports of damage or casualties
24/11/08	7.3	Sea Of Okhotsk	No reports of damage or casualties
09/12/08	6.8	Kermadec Islands Region	No reports of damage or casualties
20/12/08	6.3	Off The East Coast Of Honshu, Japan	No reports of damage or casualties
03/01/09	7.4	Near The North Coast of Papua, Indonesia	At least four people killed at Manokwari and one killed at Sorong. At least 250 people injured, 840 buildings damaged and power outages in West Papua.
08/01/09	6.1	Costa Rica	At least 20 people killed in the Cinchona-Dulce Nombre area. Many of the casualties were caused by landslides. Many people injured, several buildings damaged and landslides blocked roads in the area
15/01/09	6.7	Southeast Of The Loyalty Islands	No reports of damage or casualties
15/01/09	7.4	East Of The Kuril Islands	No reports of damage or casualties
18/01/09	6.4	Kermadec Islands, New Zealand	No reports of damage or casualties
19/01/09	6.5	Southeast Of The Loyalty Islands	No reports of damage or casualties
11/02/09	7.2	Kepulauan Talaud, Indonesia	No reports of damage or casualties
18/02/09	6.9	Kermadec Islands Region	No reports of damage or casualties
19/03/09	7.6	Tonga Region	No reports of damage or casualties
06/04/09	6.3	Central Italy	At least 287 people killed, 1,000 injured, 40,000 homeless and 10,000 buildings damaged or destroyed in the L'Aquila area
07/04/09	6.9	Kuril Islands	No reports of damage or casualties
06/04/09	6.7	South Sandwich Islands Region	No reports of damage or casualties
18/04/09	6.6	Kuril Islands	No reports of damage or casualties
16/05/09	6.5	Kermadec Islands Region	No reports of damage or casualties
28/05/09	7.3	Offshore Honduras	At least 7 people killed, 40 injured and more than 130 buildings damaged or destroyed in northern Honduras
02/06/09	6.3	Vanuatu	No reports of damage or casualties

Source: USGS

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
 Capital FM (FM 92.4) at 8.00 AM, Every Morning

Think about making your home Earthquake-Resistant

Attend our House Owners Consultation Program "Every Friday: 2-5pm"

FRIDAY FREE EARTHQUAKE CLINIC

at NSET Office

PROFILE

Ms. Niva Upreti
 Executive Secretary



National Society for Earthquake Technology – Nepal (NSET)

Ms. Niva Upreti, Executive Secretary for Executive Director's Office had joined NSET in September 1997 as Office Secretary/Computer Operator. She has been assisting the Executive Director by providing secretarial and logistics support for day to day affairs and the implementation of the projects.

She was assigned the position of Personal Assistant to the Executive Director in Oct 2005 and was very instrumental in assisting the Executive Director in mail management, planning and organizing the meetings, travel arrangement, documentation and report writing as well as in serving as focal person for logistic management of various national and international workshops & conferences.

Ms. Upreti was promoted as Executive Secretary for Executive Director's Office in October 2008 with more responsibilities on her shoulder.

Ms. Niva Upreti has participated in various trainings and workshop related to Disaster Risk Management. She has also represented NSET in an international workshop in Malaysia in 2007 as well as actively participated in the Second Year Program of the "NGO training for Disaster Risk Reduction in Asia" in 2008 both were conducted by Asian Disaster Reduction Center (ADRC). Besides, she had participated in a 15 day residential training on "National Disaster Response Team" conducted by Nepal Red Cross Society (NRCS) in 2005.

Ms. Upreti had actively assisted as a focal contact person for various National and International Workshops, seminars and conferences. Some of them are: "4th Asian Seismological Conference" in 2002 in Kathmandu jointly organized with Asian Seismological Commission; "International Conference on Earthquake Risk Management" in 2007 in Pakistan jointly organized by ERR/Pakistan, OFDA/USAID, UN-ISDR, UN-HABITAT and NSET; workshop on "Climate Change Adaptation and Disaster Risk Management" in 2008 in Kathmandu which was jointly organized with SAARC Disaster Management Center of India; and the workshop on "Modern Methods in Seismic Hazard Assessment" jointly sponsored by OFDA/USAID, U.S. Geological Survey in coordination with NSET in 2009.

Ms. Upreti has done Master Degree in Sociology in 1994 from Tribhuvan University.

FOR MORE INFORMATION ON

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



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