



FEATURE STORY: 'STUDENTS' SUMMIT ON COMPREHENSIVE SCHOOL SAFETY' CONCLUDES WITH 7-PONT SURKHET DECLARATION

Schools in Nepal are highly vulnerable to earthquake and other hazards. School buildings are constructed haphazardly without incorporating earthquake resistant design or construction techniques. This is negatively impacting on over-all safety of students, teachers and community. Level of awareness and preparedness regarding the disaster risks among teachers, students and school management committee is also very poor. Nonetheless, some initiatives have been taken to reduce the risk and promote school safety since past two decades in Nepal.



To continue the past efforts and institutionalize the works accomplished so far, various efforts have been initiated aligning with the Government of Nepal's School Sector Development Plan (2016-2023) which includes a focus on School Safety and Disaster Risk Reduction, by upgrading physical infrastructure to be more resilient and ensuring the curriculum and teacher training integrates disaster resilience. The two-day 'Students' Summit on Comprehensive School Safety 2019' concluded with 7-point declaration at Birendranagar, Surkhet on August 26, 2019, is another milestone step towards improving the safety.

The major objectives of the program were:

- ✓ Raising awareness and sensitizing the school students and teachers on comprehensive school safety;
- ✓ Learn about rich knowledge and experience of other countries;
- ✓ Inter-school exchange of knowledge and experiences;
- ✓ Provide opportunity to set common goals and objectives on school safety and preparedness;

Chief Minister of Karnali Province, Mr. Mahendra Bahadur Shahi formally inaugurated the summit while various dignitaries including Mr. Dala Rawal,

Social Development Minister of Karnali Province, Dr. Gangalal Tuladhar, Disaster Expert and Former Minister for Education, Mr. Dev Kumar Subedi, Mayor of Birendranagar Municipality, Mr. Jaya Prasad Acharya, Under Secretary at Ministry of Education, Science and Technology, Mr. Chudamani Paudel, Deputy Director General of Center for Education and Human Resource Development (CEHRD) among others.

The program was jointly organized by Ministry of Education, Science and Technology, CEHRD, NSET, USAID, UNOPS, UNICEF, Save the Children, NDRC, PLAN International, USAID, NRCS, WVI, NSSP, SAFER, British Red Cross, Teach for Nepal and EPSRC.

IN THIS ISSUE

FEATURE STORY	1
MAKING RESILIENT CITIES	3
MAKING RESILIENT SCHOOLS	6
MAKING RESILIENT COMMUNITIES	7
ENHANCING PREPAREDNESS & EMERGENCY RESPONSE CAPACITY	7
BUILD BACK BETTER	9
AWARENESS RAISING & ADVOCACY	13
MONITORING, EVALUATION & LEARNING	14
OTHER NSET EFFORTS	15



Addressing the program Chief Minister Shahi said that DRR has been high priority by his government as Karnali Province is vulnerable to hazards like Earthquakes and landslides. "The government has taken initiative to build integrated settlements to those who will be relocated from disaster risk zones," he said.



Mr. Dala Rawal, Minister for Social Development of Karnali Province, underscored the need of reducing the disaster risk of schools of Karnali province considering the sensitivity of the school sectors. "Children are overwhelmingly vulnerable to various types of disasters in comparison to other community. In order to ensure the safety of children and teachers, we are committed to make all schools resilient to disasters gradually." He further said that his government has prioritized the construction of earthquake resistant school building as well as retrofitting the schools that are vulnerable to disasters.



Dr. Ganga Lal Tuladhar stressed the need of implementing the Disaster Risk Reduction and Management Act (DRR&M) to ensure the rights of disaster safety of students and teachers. "We had to fight for long time to create appropriate DRR policies and law in the past. As we have got new DRR Act to guide our DRR activities and programs, its time to go for

stringent implementation of the all," he said. He also urged local governments to work for ensuring the safety of schools and children.

Mr. Dev Kumar Subedi, Mayor of the Birendra Nagar Municipality, expressed his commitment to continue the efforts of building code implementation in the municipality. He also vowed to work for school safety and informed that retrofitting of existing vulnerable school buildings has already been started.

Mr. Surya Narayan Shrestha, Executive Director of NSET, welcomed the participants and highlighted the Nepal's disaster risk scenario. Presenting details about impact of 2015 Gurkha Earthquake, he also highlighted that impact of 2015 earthquake would have been far worse in terms of loss of lives of students and teachers if the earthquake was occurred on the regular school day instead of Saturday. "Around 18,000 teachers and students lost their lives during the 2005 Pakistan Earthquake which struck Pakistan at around 9.30 am," he said. Mr. Shrestha further highlighted the good works that Nepal has done regarding school safety. "Nepal has done significant works on school safety. It has made progress in construction of new buildings, it has retrofitted around 300 public schools, awareness of teachers, students and other stakeholders has been enhanced through trainings and orientations and disaster preparedness has also significantly improved," he remarked.

MAKING RESILIENT CITIES: TECHNICAL SUPPORT TO MUNICIPALITIES FOR BUILDING CODE IMPLEMENTATION

Training on 'Building Construction Management' to contractors conducted

Department of Urban Development and Building Construction (DUDBC) in association with Institute for Social and Environmental Transition-Nepal (ISET-N) and NSET jointly conducted a training on 'Building Construction Management' to contractors involved in building construction in the Lalitpur and Kathmandu districts.

The objective of the training was to provide basic theoretical and professional knowledge regarding construction management to contractors and re-energize them on safer construction technology.

A total of 25 contractors actively involved in the construction of residential buildings in Kathmandu and Lalitpur participated the three-day training held during Sept 15-17, 2019. The training was formally concluded by Mr. Ramchandra Dangal, Deputy Director General of DUDBC with handing the certificate over to the participants.

Speaking at the concluding ceremony, Mr. Dangal urged the participants to implement the knowledge and skills that they learned during the trainings and contribute in building resilient community in Nepal.

Mr. Kanchan Mani Dixit, Executive Director of ISET-Nepal, highlighted the important role of petty contractors in earthquake resistant construction. Dr. Ramesh Guragain, Deputy Executive Director of NSET, encouraged the participants to devote themselves in safer construction practice after the training acknowledging the important role of contractors could play in making buildings resilient to future earthquakes in Nepal.

Contractors are the key actors in buildings construction who translate designs into reality in Nepal. Most of the residential buildings in Nepal are constructed at the guidance and with the involvement of a petty contractors and head-mason.

Likewise, a similar training was also held in Bharatpur Metropolitan City, Chitwan during Oct 19-21, 2019. The training workshop was jointly organized by Bharatpur Metropolitan City and NSET. A total of 24 local contractors participated in the training workshop. The three-day program was formally concluded by Mr. Netra Prasad Subedi, Chief Executive Officer of the Bharatpur Metropolitan City.



Vyas Municipality and NSET signed MoU for planned Urban Development through Land-Pooling

Land Pooling is a very effective method to undertake planned land and urban development in a rapidly urbanizing and poor economic country like Nepal. To aid towards managed urbanization and develop disaster resilient community, Vyas Municipality, with technical assistance from TSBCIN, is working to initiate and implement Land-Pooling Program. To initiate the program, a Memorandum of Understanding (MOU) has been signed between Vyas Municipality and NSET on August 4, 2019. Mr. Baikuntha





Neupane, Mayor of Vyas Municipality and Mr. Surya Narayan Shrestha, Executive Director of NSET signed the agreement. As per the agreement, NSET implemented and USAID/OFDA funded 'Daro Ghar Digo Basti' program will provide technical support to the Municipality. This work will help develop required policies and institutionalize the progress made in safer

building construction in Vyas Municipality. A pilot Land-Pooling work is underway at Baireni area of Vyas Municipality Ward Number 10.

Vyas Municipality introduces New Building Permit System

Vyas Municipality has begun implementation of new Building Permit System (BPS) in order to make the building permit process more effective and simpler in the Municipality. The system was announced amidst an interaction program organized by Vyas Municipality and NSET in Damauli, Tahahu on August 4, 2019.

Addressing the Interaction Program, Mr. Baikuntha Neupane, Mayor of Vyas Municipality, remarked that the process has adopted policy of decentralizing the responsibilities of Building Permit process to Ward offices, adding that it would gradually be handed over the responsibility to the ward offices so as it would help minimize the workload of Municipal Office as well as save time of service seekers.

After the decentralization and formation of technical committee to facilitate the Building Permit process, the Municipality will also carry-out tasks of building permit process in all phases effectively. The new Building Permit System is also expected to improve field inspection of under constructed

buildings to safer building practices in the urban areas of the Municipality.

After the interaction program, a group of technical resource personnel have been recruited and deployed to all the Ward Offices of the Municipality. According to the Municipality, the newly recruited technical human resources would gradually receive capacity enhancement trainings in the days to come.

Building Inventory Survey conducted in Bhimdatta Municipality

With the objective to prepare an inventory of buildings of municipality for effective building regulation system and urban development planning, a Building Inventory Development Survey (BIDS) was accomplished in Bhimdatta Municipality in Kanchanpur. The BIDS was conducted with technical support from TSBCIN program of NSET.

Piloting of metric address system at Ward no. 17 of the municipality, preparation of GIS-based digital map along with buildings usage and occupancy database, preparing earthquake scenario of municipality and development of building inventory software are the expected outcome of this survey.

The survey of 28150 buildings (households) of all 19 wards of the municipality was done. Mr. Himalaya Singh Air, Engineer of Bhimdatta Municipality, facilitated the survey through the dissemination of message at the local level through the local representative.

TSBCIN team had involved in the overall survey supervision, monitoring and data checking work wherein surveyors were current and past students of

Sub-Engineer and Assistant Sub-Engineer at local colleges. The BIDS was conducted under the financial support of Bhimdatta Municipality beside the human resource from NSET/TSBCIN. Prior to go with the BIDS, two successive three-day training were held for surveyors at municipality hall. Sixty numbers of surveyors with Sub-Engineer and Assistant Sub-Engineer background were trained with the basic concept and survey methodology. methodology.

Five-day training on Seismic Retrofit Design of Building held in Birendranagar

An engineers' training on Seismic Retrofit Design of RC and Masonry Buildings was held in Birendranagar of Surkhet of Karnali Province during September 23–27, 2019. The objective of the training was to enhance the basic skill of engineers on Retrofit Design of Building.

A total of 25 engineers from different municipalities and consulting firms across the country participated the five-day training held in Surkhet.



The training was focused on retrofitting design of residential buildings. This training was organized as follow up of the training held in Dang district.

Earlier, a similar training was conducted for engineers in Ghorahi Sub-Metropolitan City in Province 5 on August 20-22, 2019. Total 27 engineers from different municipalities and consulting firms of Province No 5, 6 and 7 and from the Department of Urban and Building Construction (DUDBC), Dang participated the training course. The training was focused on retrofitting design of residential buildings.

Prior to this training, the same lot of engineers had been provided training on "Seismic Vulnerability Assessment of Existing Buildings" in Ghorahi Sub-Metropolitan City. This training focused on seismic vulnerability assessment

of existing buildings and basic concepts of retrofitting. Altogether 30 engineers from different municipalities and consulting firms of Province No 5, 6 and 7 and from the Department of Urban and Building Construction (DUDBC), Dang had participated the training.

MoU signed with university and colleges as part of collaboration for effective implementation of BCI

To pave way for the activities in capacity enhancement of teachers and students, NSET and Far-Western University (FWU) signed an MOU. Earlier, NSET had signed a similar MOU with Mid-Western University (MWU), Civil Engineering Department. The university teachers and students (enhanced in terms of capacity) will later be mobilized to provide support to municipalities in conducting further training programs. The university is taking lead on research work by involving students and TSBCIN is taking lead for facilitating and imparting training to engineering students.

A tripartite agreement was done among Bharatpur Metropolitan City (BMC), United Technical College and NSET to assist municipality to conduct

sensitization of House owners. As per the agreement, college provided required resources to conduct two orientations to the potential new house-owners who have applied for building permits in the municipality. TSBCIN helped develop instructors for the orientation.

NSET supports for establishing System for Retrofitting in Birendranagar Municipality

TSBCIN program has been providing technical support to carry out retrofitting of existing building in western region of Nepal. Seismic retrofitting of a public building is being done as a demonstration in Birendranagar Municipality. During the retrofitting, TSBCIN program assisted these two municipalities to develop systems and strategic plans for promoting and enforcing retrofitting of other existing vulnerable buildings.

Earlier, seismic retrofitting of a private building was done as a Demonstration or Model Project in Ghorahi Sub-Metropolitan City of Dang district. These municipalities are planning to integrate the system of retrofitting into the existing system of building permit process.



MAKING RESILIENT SCHOOLS: EFFORTS ON SCHOOL SAFETY

Webinar conducted for SAFER Field Engineers on use and application of SAFER smart school inspection app

A Webinar was conducted under SAFER in order to train Field Engineers on the use and application of the SAFER smart school inspection app. Field personnel deployed at four districts i.e. Achham, Jumla, Surkhet and Bardiya were trained via a Skype Webinar using video conference. The smart school inspection app gives a relative vulnerability score for school buildings depending upon answers given in the electronic form in the app,

filled by inspectors in the field. In the Webinar, a presentation was given followed by a question and answer session. A total of 127 school blocks have been inspected collectively from the four districts and the data has been uploaded to the web server at University of Bristol.

Orientation program on Evacuation Drill held at Shramjit Kishor Secondary School

An orientation program was organized at Shramjit Kishor Secondary School in LMC-17 on August 20, 2019. The program was jointly organized by Society of Urban Poor (SOUN) and Shramjit Kishor Secondary School with technical support from NSET.

The objective of the orientation program was to teach the technique and importance of the evacuation drill at the school during the disaster with major focus on Earthquake and motivate teachers to practice evacuation drill every year at their school.

Altogether 18 teachers from the schools (11 female and 7 male) participated in the orientation.

To begin with, Ms. Sheetal Shakya, Project Manager of SOUN, welcomed the participants and clarified the objectives of the program to the participants. After brief opening session, NSET professionals conducted two awareness sessions.

Safety briefing and experience sharing of 2015 Gorkha Earthquake was held as part of first session wherein the second session described the



different steps to be taken for the proper drill process. The teachers were also explained the 9 steps of the evacuation drill on the occasion.

Evacuation Drill Exercise held

An Earthquake Evacuation Drill has been conducted at Shramjit Kishor Secondary School of LMC-17 on September 10, 2019.

The drill which was targeted to the morning shift students (grade 6 to 10) of the school conducted with the involvement of school teachers, students, NSET, SOUN and Shapla Neer.

Prior to go ahead with the drill, a brief revision of the evacuation drill orientation was conducted by NSET professional. The teachers also briefed the student about the Do's and Don'ts during the drill exercise.

Mr. Ganesh Khanal, principal of the school, performed role as incident commander of the evacuation drill.

A one-minute long bell was played as notification of earthquake. As soon as the siren went off, the incident automatically got activated. When the siren was going on, the participants performed safe behavior like 'drop, cover and hold' exercise till the shaking stops.



Once the earthquake siren stopped, the participants were notified about the end of shaking, and the participants exited the hall immediately one

by one by covering and protecting their head with available hard object. After the evacuation, the participants arrived and lined up at the assembly area and head counting was done to find out if anyone was missing.

After the completion of drill, NSET team collected the feedback from students wherein one student from each grade shared their experiences about the drill exercise. Similarly, two teachers (one male and one female) also put forth their opinion about the exercise conducted at the school. At the time, NSET professional also briefed about earthquake risk in Nepal and highlighted the importance of earthquake evacuation drill at school so that

the school along with the students will be prepared for future earthquake. The drill was concluded with the closing remarks from Ms. Srijana Shrestha from Shapla Neer and Mr. Ganesh Pd. Khanal, Principal of the school.

MAKING RESILIENT COMMUNITIES: COMMUNITY FOCUSED DRM EFFORTS

Non-Structural Mitigation Training held at Khokana, Lalitpur

With a view to sensitize the community members on earthquake risk and raise their awareness level on risk reduction measures, a Non-Structural Mitigation Training has been held at Khokana, Ward Number 21 of Lalitpur Metropolitan City (LMC) on June 18, 2019.

Total 34 community members (4 Male and 30 Female) from within the ward actively participated in the training program organized by Ward Number 21 of LMC. NSET provided the technical input for the training program as requested by LMC-21 Ward Office.

The program was chaired by Mr. Rabindra Maharjan, Ward Chairperson of LMC-21. The program conducted under two sessions. The first session was about various aspects of nonstructural vulnerabilities and its

mitigation wherein the second session was mainly focused on the non-structural hazard and its mitigation on a practical basis.

The participants also involved in the practical session and performed mitigation of non-structural items in the ward office and in a house of the participant as their practical exercise.



ENHANCING PREPAREDNESS AND EMERGENCY RESPONSE CAPACITY

Regional Courses on Medical First Responder (MFR) and Collapsed Structure Search and Rescue (CSSR) held in Kathmandu

A series of regional courses on Medical First Responder (MFR) and Collapsed Structure Search and Rescue (CSSR) has been concluded in Nepal producing trained graduates from South Asian Countries. NSET and Armed Police Force, Nepal (APF) jointly organized the course under the USAID/OFDA supported "Program for Enhancement of Emergency Response (PEER)". The successful graduates got awarded with "Certificate of Completion" in the Closing program held in Kathmandu on July 6, 2019.

A 13-day course on "Medical First Responder (MFR)" was conducted during June 12-24, 2019 in Disaster Management Training School of Armed Police

Force, Nepal (APF/DMTS) at Kurintar, Nepal. The participants were from Government Offices and National Security Agencies of Afghanistan, Bhutan, Maldives, Sri Lanka and Nepal. After that, another 8-day course on "Collapsed Search and Rescue (CSSR)" was conducted

during June 28 – July 5, 2019, where the participants from Bhutan, Maldives, Sri Lanka and Nepal continued. The Group of Instructors was comprised of experts from India, Pakistan, Bangladesh and Nepal.



Addressing the closing program, Home Secretary Mr. Prem Kumar Rai emphasized on the need to enhance regional collaboration in view of responding to mega disaster emergencies. Secretary Rai remarked, "[such regional training courses not only help in building national capacity of target countries but also contribute to enhance collaboration among the key response agencies in the region](#)". He also appreciated the US Government, NSET and partnering agencies for this effort.

From USAID Nepal, Acting Mission Director Mr. Mark Driver expressed happiness to see PEER courses contributing to enhance national response capacity in the region. Mr. Driver stated, "[since 1998, USAID/OFDA has been supporting these PEER courses with the focus to increase the regional instructors and rescuers who can play significant role to extricate and save victims during disasters. Through PEER we are creating chances to make sure that we are ready for tomorrow.](#)"

Inspector General of Armed Police Force Nepal, Mr. Shailendra Khanal remarked, "[Security forces are the first line rescuers and such uniform understanding in the rescue process throughout the region will surely work as the common language between the rescuers within and outside the South Asian region.](#)" IG Mr. Khanal acknowledged the support of Nepal Government, USAID/OFDA and NSET and thanked the governments of target countries for sending their representatives to participate in these courses.

In his remarks, NSET Executive Director Mr. Surya Narayan Shrestha highlighted two main aspects, firstly, PEER is the program which is here to enhance the capacity and the collaboration in the same time among the neighboring countries; and secondly, PEER is instrumental in collaboration among the rescue agencies both within and outside the countries in the region.

Mr. Shrestha hoped this collaboration to extend soon in the new targeted countries; Afghanistan, Bhutan, Maldives and Sri Lanka.

Course Coordinator for MFR, Mr. Amvika Prashad Joshi, Deputy Superintendent of Armed Police Force, Nepal; was pleased to inform the successful completion of the course along with which he mentioned the tireless effort of the instructors for making the course successful. Since this is the instructor's development process, Mr. Joshi appreciated the participants for actively participating in the knowledge sharing with the positive attitude and he further encouraged the graduates to take challenge as their responsibilities.

Course Coordinator for CSSR, Mr. Naba Raj Tamag, Deputy Superintendent of Armed Police Force, Nepal; remarked; "[Still the perseverance from the participants was commendable](#)". Mr. Tamang appreciated the efforts of APF/DMTS staff for working together with the instructors for making the course successful.

On behalf of the participants, Mr. K.P. Susantha Anura Amarakoon, Commandant, Colonel, Sri Lanka Army; appreciated the organizers as he believed that the task of conducting such regional trainings is not easy and further, he acknowledged NSET & APF for providing the every possible supports in making the training as well as their stay in Nepal, successful. Mr. Amarakoon thanked the team of instructors of the both the courses, MFR and CSSR for being dedicated in imparting knowledge by working for extra hours in before, during and after the class. He also thanked the staffs of APF/DMTS for their hospitality and service.

Initially, Deputy Chief of Party for PEER Ms. Meritess

Tandingan had briefed on series of PEER Courses that has come along the long journey from its origin at Latin American region to the south Asian region in the present program countries covering India, Pakistan, Bangladesh and Nepal. NSET is also pursuing to reach out to other countries in South Asia namely, Afghanistan, Bhutan, Maldives and Sri Lanka for potential PEER expansion. She further explained, how PEER has

transformed from stage I for regional perspective to national strategy in PEER stage II and to strengthening of institutionalization of PEER courses in stage III and IV.

BUILD BACK BETTER: ASSISTING POST GORKHA EARTHQUAKE RECONSTRUCTION

Institutionalization of efforts, Training to Local Authorities

In the initial phase of USAID program 'Baliyo Ghar', NSET conducted massive awareness raising activities, whereas in due course, capacity enhancement activities like mason trainings, trainings to engineers were focused. Now, time has come to institutionalize the reconstruction efforts.



As the reconstruction campaign began, in the absence of local authorities, somehow it was hindering the reconstruction activities basically in decision making and facilitating the government process. After the local bodies came to force after local elections it has been easy enough to coordinate and collaborate in making the communities resilient. But the local authorities were in seek of programs that would help in enhancing their understanding and boosting the capacity. Enhanced capacity of the local authority can play crucial role in the effective and safer reconstruction. In such scenario Baliyo Ghar program accelerated the coordination meetings and began implementing Training to Local Authorities soon after they were elected.

Four Trainings for Local Authorities and Social Activists on Disaster Risk Reduction, Building Code Implementation, Sustainable Reconstruction and Retrofit have been organized in the program areas. The two-day training package includes Roles of local authorities for sustainable reconstruction and DRR, building permit system and building code implementation followed by simulation, theories, research findings and implementation of retrofit, and retrofit on-site visit. It also includes the planning discussion for DRR measures. A separate curriculum has been developed and followed in the training.

Local authorities representing Nilkantha Municipality, Siddhalekh Rural Municipality and Galchhi Rural Municipality of Dhading participated the training conducted at Ghatbesi, Dhading. Whereas, representatives of Bhimeshwor Municipality, Tamakoshi Rural Municipality, Bigu Rural Municipality and Kalinchwok Rural Municipality of Dolakha participated the training conducted at Singati and Charikot of Dolakha. Likewise, representatives of Kakani Rural Municipality participated the training organized at Kakani, Nuwakot.

As part of the training, the participants were acquainted with the process of building permit system through simulation. Many of the municipalities in Nepal are following building permit system and implementing building code which now is mandatory for the rural municipalities as well. So to enhance the understanding level and capacitate in setting the BCI structure (Policy/system, manpower, resources, technical assistance) in rural municipalities, the demo building permit system exercise was conducted.

After the training, the local authorities have drawn-on in proceeding the enforcement of building code and building permit system in their



municipalities. Also, they have shown keen interest in retrofitting the non-damaged houses and existing vulnerable houses in their areas.

The exhibition included basically 6 major themes; Resilient Communities, Happy Families, Reconstruction Heroes, Knowledge and Technology Transfer, Baliyo Ghar Program Activities among end-users; and Inclusion in Reconstruction. More than 100 photos collected from Baliyo Ghar Program

areas were displayed during the Exhibition. With the support from USAID, NSET is providing technical assistance in reconstruction of Nepal through Baliyo Ghar Program.

Additional trainings to masons conducted under USAID program 'Baliyo Ghar'

By the end of 4th year of Nepal's reconstruction there was an increased demand from trained masons and local governments to provide trainings to local masons who had received training in rural construction but had also started working in urban construction. To cater to such demand and the need of continuing education for previously trained masons, under USAID program 'Baliyo Ghar', NSET designed a refresher course for masons. As such, a 4-day training course was designed for enhancing skills of rural trained masons in urban construction, as per the need of the community. One of the trainings was conducted during July-Sept 2019 with 30 masons get trained. 8 such trainings have been already conducted enhancing the capacities and knowledge of 252 masons.



Sharing of learnings on reconstruction held

The preceding months of Baliyo Ghar Program have been the time for stakeholders to share program implementation lessons with each other. Workshops and Interaction meetings have been held among the partner organizations, government agencies involved in reconstruction and with working journalists of program areas. A "Learning Sharing Workshop on Socio-Technical Assistance in Reconstruction" was held in Dhading in June which highlighted the different approaches and strategies of socio-technical assistance, pertinent issues of reconstruction such as retrofitting and vulnerable groups, along with challenges and way forward and scope of building code implementation in Baliyo Ghar Program municipalities. A national media workshop on "Roles of Mass Media in Institutionalizing the Reconstruction Efforts and Promoting Resilient Communities" was held in September, which discussed the role of mass media, both national and local, in covering the various issues of reconstruction. The workshop concluded that it was "very important that local government units in

earthquake affected areas be sensitized towards institutionalizing the current efforts and achievements of reconstruction by enacting appropriate ERM measures, including enactment of the National Building Code. The role of mass media should be to produce, and broadcast programs based on sustainable development and dig out issues of reconstruction to increase accountability of the stakeholders."

Scaling up retrofitting and transferring the technology

In the preceding years, Baliyo Ghar Program has been focused on providing technical assistance to under construction houses, while also providing some support to retrofit beneficiaries. With the expertise gained in drafting 7-day and 50-day mason training curricula, Baliyo Ghar program drafted 25-day curricula for Training on Retrofitting of Masonry Buildings for Existing Masons.



Relying on the curricula, retrofit training have been conducted through which demonstration models have been installed in the communities. The primary work during the period (July-Sept 2019) was to implement retrofit in masonry buildings as did in previous months. In this period, 16 houses in program areas were retrofitted as part of mason trainings, with two houses still under construction due to obstructions in road and house owner limitations during festivals.

On one hand, 98 local masons have been trained in retrofitting while on the other, the houses retrofitted as part of the training served as a retrofitting technology demonstration house for the local people; they observed the

process of retrofitting, evaluated the technology for replication and examined the benefits of retrofitting of houses. Many other trainings, including retrofit demonstration, inspection trainings and design trainings for engineers and training for government officials included sessions of retrofit observation at these demonstration houses.

Retrofitted houses handed over to the beneficiaries



A total of six houses that were retrofitted as part of trainings conducted by NSET under the USAID program 'Baliyo Ghar', have been handed over to the beneficiaries in Siddhalekh Rural Municipality, Nalang, Dhading.

Chief Executive Officer of National Reconstruction Authority (NRA), Mr. Sushil Gyewali inaugurated the retrofitted houses on July 3, 2019.

Amidst a retrofit technology handover ceremony organized in Aaprichhap of Nalang, Mr. Gyewali handed over the retrofitted houses of Mr. Ram Prasad Naharki, Mrs. Devaki Naharki, Mrs. Mira Kunwar, Mrs. Prem Nath Yogi, Mrs. Pech Maya Giri, Mr. Surya Bahadur Kunwar, the residents of Nalang. Those houses were retrofitted through 25 days training program of Baliyo Ghar where 6 masons in each house enhanced their knowledge, skills and capacity regarding retrofit. CEO Mr. Gyewali along with other distinguished professionals representing NRA, Siddhalekh Rural Municipality, GMALI-CLPIU, CLPIU-Building, USAID, and NSET observed the ongoing retrofit site in nearby location as well.

Addressing the ceremony, Mr. Gyewali stressed on the need of retrofitting 70 thousand more houses in quake-hit 32 districts. ["Some organizations like NSET have developed retrofit model houses, though it will not be enough, we need to scale up the retrofit to strengthen the seismic capacity of 70 thousand more houses. There are no other options than to demolish or retrofit for the partial damaged houses during Gorkha Earthquake,"](#) he said. He also believed the retrofitted houses in quake hit areas like Nalang can be the model houses for quake-hit and quake-non-hit areas where numerous vulnerable houses need to be retrofitted.

He urged the trained masons to apply their skills and knowledge gained through training in retrofitting other houses in the municipality and other areas as well. He also expressed his interest in implementing retrofit in his own traditional house in Palpa district after observing the retrofitted houses.

Deputy Chief of Siddhalekh Rural Municipality, Mrs. Kamala Sharma highlighted the reconstruction progress and plans for sustainable reconstruction made by the rural municipality so far. She also claimed that they faced with the numerous pressures to enlist fake households as

reconstruction beneficiaries but never did the wrong decisions. Likewise, ward Chair of Siddhalekh – 2, Mr. Kamal Bahadur Gurung briefed about the efforts made through ward in accelerating the reconstruction process along with the problems prevalent in ward. Both the representatives committed to scale up the implementation of retrofit in their rural municipality.

Dr. Chandra Bahadur Shrestha, Executive Member of NRA said, "Retrofitting works in Nalang further increased our degree of confidence on its viability. How to convince all NRA beneficiaries of 70,000 households on this technology is our short-term challenge and how to replicate this technology nationwide for retrofitting about 3.5 million housing stock in the country is our long-term challenge."

Deputy Chief of GMALI-CLPIU, Mr. Narayan Shrestha urged the retrofit beneficiaries to sign the agreement with government to receive the amount worth Rs. 1 lakh and start retrofitting the houses. ["Living in an earthquake prone country and area and leaving the vulnerable houses standing may result to tragic condition, hence I request the retrofit beneficiaries to start retrofit as soon as possible. If](#)



you like to transform in reconstruction beneficiaries, also I urge to sign the agreement for further process," Mr. Shrestha said.

Likewise, addressing the ceremony Executive Director of NSET, Mr. Surya Narayan Shrestha highlighted in the role of local authorities in scaling up the retrofit implementation. "NSET just develops and demonstrates the model regarding different technologies like retrofit, the sole responsibility goes in local community and local authorities to replicate and make them widely implemented," Mr. Shrestha said. He believed the trained masons developed through retrofit training would contribute in retrofitting other houses in the locality.

During the occasion, Mr. Ranjan Dhungel, Program Manager of Baliyo Ghar delivered the report of retrofit implementation through the program in

Dhading primarily focused in Nalang. Total 376 households have been enlisted as retrofit beneficiaries in ward 1 and 2 of Sidhalekh Rural Municipality, Dhading. NSET-Baliyo Ghar Program with the support from USAID has accomplished 6 model retrofit houses and in one more house retrofit training is undergoing in Sidhalekh-2, Nalang.

NSET and NRA jointly conducted "Engineers' Training on Seismic Retrofit Design of Masonry Buildings"

An "Engineers' Training on Seismic Retrofit Design of Masonry Buildings" was organized jointly by NRA & NSET during Aug 5-9, 2019 in Kathmandu through USAID supported "Baliyo Ghar" program. Total 33 Engineers from 26 districts including 26 from NRA (CLPIU/DLPIU) and rest from partner agencies completed the training course.

Addressing closing of training, CEO of National Reconstruction Authority (NRA), Mr. Sushil Gyewali instructed trained Engineers to reach & help beneficiaries on retrofit. While Housing Reconstruction after 2015 Gorkha Earthquake is almost to accomplish, there are around seventy thousand beneficiaries enlisted for retrofit support where progress is marginally low. Retrofit is relatively new approach and people are seeking guidance on what and how they can do retrofit of their houses.

"You are NRA's extended hands to reach to communities and individual beneficiaries. You can help them how they can secure their partially damaged houses with safety level enhanced and how they can continue their attachment and association with the houses they have been living for long times" CEO Gyewali pointed. He stressed also for using mass media to communicate with communities.

On the occasion, Chief of Center Level Project Implementation Unit of NRA (NRA/CLPIU - Building) Mr. Navaraj Pyakurel highlighted the issues of institutional improvement, technical input and cadre development for retrofit works. Mr. Pyakurel stated, "The way we did work for reconstruction may not work for retrofit. We need to have new approach. Earlier our technical

responsibility was more to check and verify while now we also need guide and provide solutions to beneficiaries."

Nick Ledoux from USAID Nepal stressed on the need of standardizing the processes to ensure safe reconstruction. Mr. Ledoux highlighted the Baliyo Ghar approach of working for standardizing procedures, approaches and systems, raising awareness of various stakeholders; and building capacity of construction actors.

NSET Executive Director Mr. Surya Narayan Shrestha briefly mentioned about retrofit that NSET started to work from one school in Kathmandu back in 1997, and the shared that around 300 school buildings retrofitted till 2015 were tested by Gorkha Earthquake, and the



result is that all school buildings could survive. Mr. Shrestha stress in the need of conducting campaigns for retrofit to improve seismic safety level of weak structures and to standardize Retrofit Design & Works.

Earlier, Mr. Ashish Tiwari, the Course Coordinator had highlighted the participation and contents of the training.

Sharing the reflections of participants, Ms. Sikshya Shrestha and Mr. Ajay Acharya extended their happiness to learn more on retrofit through this

event. They showed the confidence and commitment to provide more support to retrofit beneficiaries in the affected areas

AWARENESS RAISING AND ADVOCACY EFFORTS

Journos discussed on roles of mass media in institutionalizing Reconstruction Efforts and promote retrofit

Journalists from different media houses intensely discussed on the roles of mass media in institutionalizing the reconstruction efforts and promote retrofit. Twenty-five more journalists representing national and local broadsheets, national television and different radio stations profoundly explored the ideas that media should play in promoting safer communities.

During a two-day media workshop on "Roles of Mass Media in

strengthen damaged and non-damaged houses, while also preserving the traditional architecture.

Mr. Shreeram Singh Basnet, media expert and board



Institutionalizing the Reconstruction Efforts and Promoting Resilient Communities" organized under Baliyo Ghar Program, the journos outlined the areas that media can involve themselves in promoting resilient communities. The media workshop was organized in Dhulikhel during Sept 18-19, 2019.

Addressing the opening session of the workshop, Dr. Bishnu Bahadur Bhandari, Executive Member of National Reconstruction Authority (NRA) emphasized on the reconstruction learnings, roles of mass media towards institutionalizing the current efforts and promote retrofit along with other issues of reconstruction. "Role of media is very important in post disaster scenario, so mass media must also be sensitive as to what to broadcast and what not since media can present a deep impression among audience," Dr. Bhandari said, "We have collected a tremendous learnings of reconstruction, no one should be left behind and these days retrofit, addressing the vulnerable families among others are the burning issues. NRA thinks of walking together with the mass media to address these issues and institutionalize the efforts." He urged media personnel to promote retrofit as it provides an opportunity to provide cost effective measures to

member of NSET stressed on the NSET's vision and mission of working with mass media. He said, "NSET has been involved in policy interventions and working in communities where media personnel too are playing a bridging role. Hence NSET is working with mass media to strengthen the relations between grassroots and policy level." He commended that NRA and the government should appreciate the efforts of media personnel in the aftermath of the earthquake and work on enhancing the capacity of Nepali media, both technically and infrastructures.



Mr. Khadga Sen Oli, Advocacy and Outreach Manager to NSET highlighted the objectives of organizing media workshop whereas Mr. Ranjan Dhungel, Program Manager of NSET-Baliyo Ghar put emphasis on the impacts of collaborating with mass media for safer reconstruction. He also sought the effective roles of mass media for sustainable construction practice which will serve towards building resilient communities.

During the workshop sessions, Mr. Manohar Ghimire, Deputy Spokesperson of NRA shared the reconstruction learning gathered so far and highlighted on the importance of retrofit and speeding up urban reconstruction. Likewise, Dr. Ramesh Guragain discussed on retrofitting masonry buildings and its significance in Nepal. Mr. Shreeram Singh Basnet presented the media roles during disaster, post-quake reconstruction and stressed on media roles towards promoting retrofit and localizing the current efforts.

Two panel discussions were conducted during the two-day workshop. On the first day a panel discussion was conducted to share the grassroots experiences of reconstruction and socio-technical assistance as well as experience of implementing building code in municipalities. Mr. Dhruba Kumar Shrestha, Ward Chair of Sailung rural municipality-03, Mr. Mahendra Raj Khatri, Ward Chair of Shivapuri Rural Municipality-01, Mr. Ramdhan Shrestha, Engineer of Ghorahi Sub-metropolitan City, Dang and Mr. Gambu Thami, a trained mason served as panelists where Mr. Ranjan Dhungel, Program Manager of Baliyo Ghar, moderated the discussion.

Likewise, on the second day, to summarize the roles of mass media in post disaster reconstruction, in promoting retrofit, dig out the unheard stories and media's role in localizing the current efforts, a panel discussion was conducted among the participants. Mr. Tekraj Thami, Senior Reporter of Naya Patrika Daily, Mr. Shreedhar Neupane, Editor of CIN and Mr. Dipak Sapkota, Communication focal person of NRA discussed the issues as panelists and Mr. Laxman Karki, Sub Editor of Ujjyalo Network moderated the session. During the panel discussion, participants from Nepal Television, Rajdhani Daily, Nagarik Daily among others shared their contribution for better and safer reconstruction as well as focused on the write-ups to be maintained in the days to come.

Speaking in different sessions and through the discussions made, the participant journalists committed to put their critical eye and support the

government process regarding ongoing reconstruction, promote retrofit and strengthen media role in localizing the current efforts for sustainable construction practice.

Likewise, to institutionalize the current knowledge and efforts, as shared by Mr. Ramdhan Shrestha, Engineer of Ghorahi during panel discussion, registration of engineers and masons in rural municipalities should be a subject of priority. Registration of houses that have been constructed within the rural municipalities can ensure the safer construction practice. Likewise, providing subsidies to motivate house-owners and promote culture of earthquake safe construction in rural areas can be done. Rural Municipalities where consultancies are not available can train the municipal engineers and consultant engineers to help draw the design of houses probably free of cost will encourage the house-owners and mainstream them towards seismic safety. Mass media can best serve in digging out these issues and promote culture of safety in rural municipalities.

MONITORING, EVALUATION AND LEARNING AT NSET

RPS, Retention Survey and Survey on Status of Safer building construction practices underway under TSBCIN

A Baseline Survey on general perception of people and professionals towards disaster resilience and safer construction has been accomplished as part of TSBCIN program under the Risk Perception Survey (RPS) that uses KAP (Knowledge, Attitude and Practice) approach. Total of 669 samples were collected from different wards of 32 TSBCIN program municipalities. The mean knowledge score was 54.8, attitude score was 87.83 and practice score was 58.77. Attitude score (87.83) was found to be high among the participants in comparison to knowledge and practice score.

Likewise, a retention survey is being carried out to collect information on the retention of profession and knowledge from the graduates of the training

provided by the project. The survey is being conducted among masons and engineers, a few months after the training program.

Engineers Retention Survey among 43 engineers indicated that age of the engineers was found to have significant effect on the retaining score. From the

result of the paired t-test, respondents were found to retain most of the knowledge after the interval of 3 months of the training.

Similarly, a Survey on Status of Safer building construction practices has found that increased percentage of newly constructed buildings complying with National Building Code. To assess this, building drawings submitted to

the municipal offices for building permit process as well as building construction in the field are being inspected to compare the compliance figures.

OTHER NSET EFFORTS

Nepal marked 40th Social Service Day

Nepal marked 40th Social Service Day on September 23, 2019. The national level event organized by Social Welfare Council (SWC) in association with government agencies, non-government & community-based organizations and their networks. NSET also participated in the various programs organized to mark the occasion.

Addressing the national ceremony in Kathmandu, Vice President Nanda Bahadur Pun urged to focus social efforts in less privileged areas.

"We should focus on long term impacts rather than immediate benefits. For that, our efforts must reach to remote and rural areas such as Karnali so that deprived population can have access to knowledge and resources", he stressed.

Minister than Maya Thapa from Nepal Government's Ministry of Women, Children and Senior Citizen highlighted the roles of Social Welfare Council to mobilizing and monitoring non-government organizations for the upliftment of women, children, senior citizen, persons with disability and others who are marginalized. *"The upcoming Act will be under the guidance of our constitution and also based on international practices"*, she remarked.

On the occasion, Vice President Pun conferred social service awards to individuals and organizations who have made significant contribution in the areas of social service in Nepal. Vice President also visited Exhibition Stalls

including one managed by NSET. There were many stalls managed to showcase efforts of various agencies and organizations. Earlier, an Awareness Rally walked from Bhrikuti Mandap along city core areas around Tundikhel, Kathmandu and assembled back in starting point. NSET joined both in rally and exhibition.

Social Welfare Council (SWC) was established in 1977 with the mandate of facilitation, coordination and monitoring & evaluation of non-government organizations (NGOs). Nepal has now around 250 international NGOs and more than 50-thousand NGOs.



For more information, please contact us:



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