

Earthquake Safety



Baliyo Ghar - Year III Special

December 2018 | Issue: III

Baliyo Ghar towards institutionalization of culture of resilience construction

"Baliyo Ghar Program" is an initiative to support Government of Nepal (GON)'s wider national goal of "Building Back Safer" in the wake of April 25, 2015 Gorkha Earthquake struck in Nepal. With the support from United States Agency for International Development (USAID), NSET is implementing Baliyo Ghar program for the period of Oct 2015-Sep 2020. The program has completed Year III on 30th September 2018. This newsletter covers the activities of Baliyo Ghar program from October 1, 2017 to September 30, 2018.

"Baliyo Ghar" program has adopted an owner-driven approach to achieve the objective of promoting earthquake resilient housing reconstruction. The program imparts knowledge, skills and awareness about earthquake resistant building construction technology to house owners and local masons. Furthermore, the program assists GON and its related authorities, and partner organizations to develop standard guidelines, norms and training curricula.

Among 14 severely earthquake affected districts, Baliyo Ghar program is being implemented in four districts namely, Dhading, Dolakha, Nuwakot and Kathmandu.

From the Year II, Baliyo Ghar program covered all the rural and urban municipalities of Dhading and Dolakha districts from regular program and OJT surge activities while few are left in Nuwakot. The reconstruction



Map of Baliyo Ghar program coverage.

progress in the program implemented areas are quite satisfactory. The major activities like masons trainings and on-the Job Trainings have been accomplished and few of the activities like awareness, capacity building activities to the local authorities are to be implemented in Year IV. The areas where reconstruction is yet to be finished will be the core areas to focus on. Baliyo Ghar Program is more committed to ensure safer reconstruction and also determined to help local authorities get prepared for any kinds of disasters helping them develop action plans for disaster risk mitigation. Baliyo Ghar

program is now set to delve into the specific technical and social issues that is hindering reconstruction of certain beneficiaries while also working towards institutionalization of the current reconstruction efforts into culture of resilience construction and preparedness. In order to do so, supporting local government units, the municipalities and rural municipalities to prepare and implement disaster risk management plans will be vital towards institutionalization.

The major highlights of Year III Program implementation

- Development of Instructors
- Capacity building of construction workforce
- Trainings for Social Mobilizers
- Capacity Building Training for Local Authorities
- Door to door Technical Assistance
- Reconstruction: Learning and Sharing Workshop
- Mason Retention Survey

- Building Compliance Survey
- Media Workshop
- Completion of Mason OJT surge activities outside regular program area
- Learning Sharing Workshops on OJT
- Strategic implementation of policy documents
- TV Programs and Radio Programs produced and broadcasted



सुरक्षित समुदायका लागि समर्पणको २५औं वर्ष Silver Jubilee of Dedication to Enhance Resilience

Activities Accomplished in Year III

Enhanced the capacities of 1593 existing masons, trained 581 technical professionals and developed 4994 new masons through OJT

In the Year 3 of Baliyo Ghar program implementation a total of 912 trainings to boost the capacity of construction workforce including technical professionals have been conducted. Through these trainings 1593 existing masons and 581 technical professionals have been trained. 4994 new masons were developed through 838 On the Job Training programs implemented in Dolakha, Dhading and Nuwakot through regular program activities and through vendors. OJT is a process of converting unskilled construction workers to a skilled one. OJT is capacity building training for the persons who are working in construction field though with no skills or interested persons to work in construction activities. OJT program intended to produce new masons to help constructing earthquake resistant housings in postquake reconstruction campaign. It's a 50-day course where one Lead trained mason teaches new 6 masons while constructing a demonstration house in regular guidance of authorized technical professional. Through vendors 585 OJTs were conducted producing 3488 new masons.

57 mason trainings were conducted in Dolakha, Dhading, Nuwakot and Kathmandu to enhance the skills and knowledge of 1593 existing masons who are contributing to reconstruct their localities. Among them 209 were female masons. 7-day mason training course is meant for already existing skilled construction workers mainly masons (stone-layers, brick-layers), carpenters, and bar-benders. Generally, the existing masons have basic knowledge and skills required for construction of a house, but they do lack knowledge and skills on earthquake-resistant technology. This course helps upgrade their skills to incorporate earthquake-resistant technology. The course includes common basic contents such as need for earthquake-resistant construction, building configuration, quality of materials, overview of seismic retrofitting etc., and it has specific detailed sessions on either stone wall construction, brick wall construction or reinforced concrete frame construction.

Likewise 6 Mason-ToTs were conducted to enhance the capacity of 189 technical professionals; engineers, sub engineers and architects. 56 technical professionals received the advance training through 2 Advance Technical Trainings, 21 technical professionals received the basic technical training and 259 engineers received the basic training on Retrofitting whereas 56 engineers received the advance training on Retrofit.

Baliyo Ghar trained 186 social mobilizers for effective social mobilization

To enhance skill of existing social mobilizers to further train other social mobilizers on community facilitation for safer reconstruction, 5 trainings for social mobilizers were conducted in year III. 2 Social Mobilizer TOT have been organized to develop social mobilizers engaged in reconstruction activities as an instructor. The objective of the training was to equip social mobilizers with technical and social information so as to motivate and facilitate people in constructing earthquake safe houses. Through 7 trainings 186 social mobilizers from different partner organization including Baliyo Ghar program were trained and mobilized to the community in order to disseminate the technical information about earthquake-resistant construction technology.

Large number of social mobilizers have been deployed in the quake affected districts to reach out to each and every households in the community to spread the awareness message. Hence, separate training courses for social mobilizers is developed to enhance their

skills in facilitating the community, which includes simple modules on key technical aspects for the orientation of the community. This course developed by NSET is a 7-day course, which includes simplified technical information about earthquake-resistant construction technology, basic knowledge and skills on effective social mobilization, and information about housing reconstruction program.

Reached to additional 45301 people through community orientations

As in the previous years, Baliyo Ghar oriented thousands of earthquake beneficiaries in order to make them aware on the need of earthquake resistant construction. 2436 community orientations were organized by the mobile team of Baliyo Ghar Program. A mobile team consisting a technical officer, a social mobilizer and a construction technician have been deployed to guide the community people on the proper construction techniques, choice of building typologies, materials to make their houses earthquake resilient.

Through the orientations, 45301 people have been benefitted in acquiring information on earthquake itself, safety and preparedness, earthquake resistant elements in housing reconstruction and enroll in government process. Among the participants 27654 were males where 17647 were female who were affected by the earthquake.

It's nearly twice more than the orientations held in Year 2 of program implementation.

Additional 676 episodes of Radio programs and 52 episodes of TV program produced and broadcasted

As part of Awareness raising Campaign of Baliyo Ghar Program, NSET is partnering with different media houses to produce and broadcast Radio and TV magazine to promote safer reconstruction practice. Mass media is one of the major components of the Baliyo Ghar program to share and disseminate information, knowledge and ideas on safer construction technologies and also on various aspects of reconstruction process. Baliyo Ghar program is collaborating with media partners (TV and Radio) in program districts and also in Kathmandu Valley for the central and national level media advocacies and campaigns. In the Year III, 676 unique episodes of Radio program have been produced and get broadcasted twice a week (i.e. 1352) through 13 Radio stations and 52 episodes of TV program have been produced and aired 9 times a week (i.e. 468) through 3 TV channels (Kantipur TV, Avenues TV and News24 TV). Radio and TV programs are continuing from the 2nd year of program implementation. 34 Episodes of TV Program and 208 episodes of Radio program has been planned for 4th Year.

Learning Sharing Workshops and Trainings to Local Authorities held in 3 districts

To share the reconstruction experiences of rural and urban municipalities where Baliyo Ghar is being implemented and to analyze the notions of ongoing reconstruction from the top up to grass roots level Learning Sharing Workshops were held in Dolakha, Dhading and Nuwakot. The workshops listed out the persisting challenges as well as anticipated ones that are defying the reconstruction process. Local authorities, stake holders and beneficiaries participated the workshops.

Likewise 6 trainings to local authorities were organized to capacitate elected members on the disaster risk reduction and safer reconstruction. The 287 local elected representatives benefitted from Six Local Authority Training events.

Baliyo Ghar Achievement, Year 3

Increased Awarness					
Community Orientation - 45301	Dessimination of Awar Materials - 13303		Broadcast of Radio Program - 1352		
	Demonstration Model House - 835	Broadcast of Television Program - 462			
Door to door Technical Assistance - 31409	Production of Radio Program - 676	Demonstration Training Model - 112		Production of Television Program - 52	

Enhanced Local Capacity				
Mason On the Job	Mason Training			
Training - 4994	- 1593			
Engineers Training - 581	Social Mobilization Training - 186			
Training to Local	Training for			
Officials - 287	Instructor - 83			

Message from Program Manager



Ranjan Dhungel Manager Baliyo Ghar Program

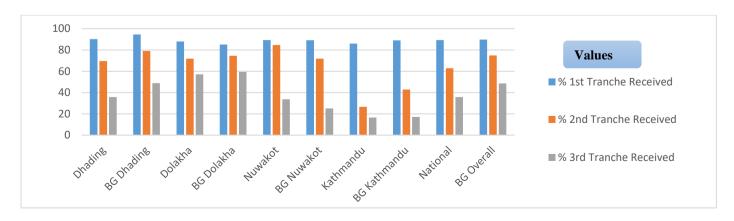
In the former three years of implementation, Baliyo Ghar program has accomplished a multitude of activities towards achieving the program goal of disaster resilience communities. As such, more than 12000 local masons have been trained in earthquake resistant construction technologies, 88% of whom have retained their profession even after a year of the training. Supply of adequate trained human resource is vital for any construction work, let alone the massive undertaking of rebuilding several thousand damaged houses in a short period of time. Similarly, more than a hundred thousand people have been involved in awareness raising programs like community based orientations which allows people to gain the much required knowledge on both technical and policy level provisions of reconstruction. Further, the program has also trained hundreds of engineers, social mobilizers and government officials in a bid to ascertain consistent sharing of knowledge and information among a wide range of stakeholders.

All these activities, in collaboration with the support in policy formulation and preparation of

technical manuals and guidelines has led to the current expedition of reconstruction campaign all over the country, thus, emphasizing the need for comprehensive socio-technical assistance in the aftermath of any disaster.

With the process of reconstruction set in its path through the consolidated efforts of all the concerned stakeholders, the focus of Baliyo Ghar program is now set to delve into the specific technical and social issues that is hindering reconstruction of certain beneficiaries while also working towards the institutionalization the current of reconstruction efforts into preparedness. In order to do so, supporting local government units, the municipalities and rural municipalities to prepare and implement disaster risk management plans will be vital towards institutionalization. In addition, along continuous with the technical assistance to fully damaged houses, the program is now focusing on the dissemination of knowledge and skills on retrofitting the partially damaged houses, which are in the thousands as well. As in the reconstruction of houses, providing training to masons and changing the perception of all concerned towards the technology of retrofitting is of paramount importance. Further, dissemination of the learnings acquired during the implementation of the program within the country and abroad to aid the preparedness of communities that are at risk, similar or more will be the key to achieve the program's goal of disaster resilient communities. Finally, the investment on enhancement of national capacity directly or indirectly helps to safe life and property. Also, helps in efficient utilization of financial resources in different stages of post disaster situations.

Reconstruction Scenario (As of September 2018) (Comparison among Baliyo Ghar program districts / areas with Total reconstruction)



6 Learning Sharing Workshops held in Dolakha, Dhading and Nuwakot

In regard with the objective of providing a platform for the local government, stakeholders and authorities to share their learnings from reconstruction, Baliyo Ghar program organized "One day Learning and Sharing Workshop" in Dhading, Dolakha and Nuwakot, the program implemented districts. The representatives from District level, Municipal Units as well as Ward level participated in the workshop, where they shared the recent reconstruction status, their assenting efforts to exacerbate the process and the challenges that are hampering the anticipated stride.

The workshop was designed in two sessions. The first session was formal opening session where the pertinent panel of participants shared their notions on the current reconstruction, both positive and negative parts of it. In the second session, which was a group discussion typethe participants together listed the possible challenges and tried to provide a way forward for same. The hindrances were categorized in different aspects to determine their solution among the three tiers of government namely, Central, Provincial and Local. Interestingly, out of possible challenges listed, majority of them came under the local government scope, few under the central government and some under the municipal level. Furthermore, while looking at longer duration the setting up of Building Permit System in Municipalities (Urban and Rural) along with the assistance of Community Based Organizations like NSET was felt essential.

Henceforward, while scrutinizing the findings of workshop, capacity enhancement of local authorities is soaring needs which in a larger horizon will make the authorities capable enough to institutionalize the achievements and convert their efforts towards safer societies. 3 such workshops were held in three districts where more than 180 people actively participated the sessions and pursued the collaborative efforts to institutionalize the current efforts for safer and better reconstruction.

Another 3 workshops were about the learning and sharing from mason On the Job Training (OJT). In the OJT workshop implementation team from Baliyo Ghar and training service providers (TCN and Trade Link), selected house owners, head masons, and trained masons participated to discuss the pros and cons of OJT implementation, needs improvement on the training curricula and social problems in implementing OJT.



The key shared experiences on the learning sharing workshops were; if adequate awareness and knowledge to local authorities had been provided earlier it would aid the exacerbation in reconstruction. However, due to proper dissemination of knowledge through such trainings the local authorities are able to understand its importance and viability and ensure the implementation of building code in rural municipalities anticipating their further urbanization. The local authorities have seen skeptical in implementing retrofits in rural houses.

The following are key learnings made through the workshops:

- Implementation of Retrofitting programs through creation of awareness regarding its applicability and capacity enhancement.
- Essence of awareness among the local authorities regarding the rights and regulations they are provided with.
- Continuous interaction between the NRA authorities, engineers & local authority sharing each other's notions and providing a way forward to be adopted.
- Differences in awareness level in Baliyo Ghar working and nonworking areas.
- Importance of training to local stakeholders in order to increase ownership and acceptance.

One-Day Capacity building Training to the Local Authorities conducted in four Districts



One-Day Training on Disaster Risk Reduction (DRR) / Disaster Risk Management (DRM) and Sustainable Reconstruction to the local authorities was conducted in Dhading, Nuwakot, Dolakha and Kathmandu. In the Year III, 6 such trainings were held in 4 districts where 287 elected representatives including ward chiefs and ward members from Baliyo Ghar Program implemented rural and urban municipalities actively participated the training. The training was conducted to impart the knowledge about role, responsibility and liability of local authority on reconstruction in new Federal System- Nepal.

The main objective of this training was to enhance the knowledge on disaster risk reduction and sustainable reconstruction and to support and build-up knowledge of local authority on federal and decentralized government focusing to the reconstruction.

Focus for the 4th Year Program Implementation

- Scaling-up the Socio-Technical Assistance in the quake-hit areas
- > Supporting local government units, the municipalities and rural municipalities to prepare and implement disaster risk management plans
- Dissemination of knowledge and skills on **Retrofitting** the partially damaged houses; **On-the Job Trainings for Retrofitting**

Baliyo Ghar Activities in DOLAKHA

NSET/Baliyo Ghar program is providing technical assistance to 4 rural municipalities and 1 urban municipality (Erstwhile 13 VDCs and 1 Municipality) in Dolakha district for safer reconstruction. And through On-the Job Training (OJT) surge with partnership with training service providers, remaining parts of Dolakha have been covered by Baliyo Ghar program.

Mason Training

Mason Trainings have been very impactful in the quake affected districts to ensure safer reconstruction. At least one trained mason have been employed in reconstructing a house in Dolakha that has resulted in rebuilding quake safe home. In Year III, Baliyo Ghar program accomplished 26 mason trainings in Dolakha with the objectives of enhancing the knowledge, skills and capacity of local masons. It is believed the idea of transferring technology to the community is possible through mason trainings. Altogether 786 masons including 126 female masons have enhanced their technical capacities to rebuild Dolakha safer and better. The trained masons have been engaged in housing construction at the different parts of the district. And the

rate and quality of reconstruction in Dolakha is much more satisfactory.



One of the participants of mason training Mrs. Dhanlaxmi Shrestha involved in the construction of wall model in Dolakha.

On the Job Trainings

Baliyo Ghar Program has been conducting 50-days OJT training produce new skilled masons in the 4 districts to contribute in addressing the demand of skilled masons. OJT program intends to produce new masons to help construct earthquake resistant housings in post-quake reconstruction campaign. In the Year III, under the regular activities of Baliyo Ghar program 102 On-the Job Trainings have been accomplished which has produced 606 new trained masons in the district who can contribute in reconstructing Dolakha. Likewise, Training Center Nepal (TCN), working as the vendor of Baliyo Ghar program has accomplished 207 OJT sites producing 1241 new masons in the district. Through all OJTs a model house (house selected through coordination among ward committee, villagers and NSET-BaliyoGhar) has been rebuilt in each ward of erstwhile VDCs of Dolakha.



"Earthquake came as an Opportunity for us"

During 50 days-OJT course implemented in Chyama, Dolakha, the 5 Phuyal brothers not only developed their skills in merely building the house structure but also about the technical aspects of earthquake safe home construction. They say in a voice, "we were very keen in learning during the training because we were seeking some opportunities to change the track of our life with some skills in our hand. Consequently we came as confident skilled masons." They became acquainted with the earthquake resistant elements that they should inject while constructing a house. "Earthquake safe home was neither a mystery nor a complex process, it's about knowing the safe ways, and earthquake came as opportunity for us" Mr. Arjun said.

Baliyo Ghar trained masons Mr. Bhim Prasad Phuyal, Mr. Binod Phuyal, Mr. Arjun Prasad Phuyal, Mr. Netra Prasad Phuyal and Mr. Lila Prasad Phuyal have made a team to get involved in reconstruction works. They seem like '5 Pandavas' who have their collective aim to rebuild Chyama better and safer.

19150 people benefitted from Community orientations

The orientation program is not only raising awareness on earthquake safety and preparedness but also changing the perceptions of people on safer housing construction. It's a 2 hour session that delivers the basic techniques of building safer houses and motivates community people to mitigate the earthquake risk by being well prepared for such disasters. In the Year III, Baliyo Ghar program Dolakha accomplished 800 more orientation programs benefitting 19150 community people at 13 erstwhile VDCs and 1 municipality in Dolakha district. Multimedia, flip-charts and posters and booklets carrying the ten-key messages for safer housing reconstruction are used as communication tools while conducting the orientation program. Some orientation programs were also organized targeting the representatives of different committees like Ward Citizen Forum, Sachetana Kendra, Mothers group, local political leaders etc.



Basic Training on Retrofit and Social Mobilizer's TOT

Reconstruction is now in its peak hour as 3 years have passed after the destructive Gorkha Earthquake. But still those beneficiaries whose house are under list of retrofitting are still in dilemma to either construct new building or to retrofit current building. Similarly, technical persons working on respective fields also lacks proper knowledge on retrofitting to give ideas to those beneficiaries. Hence, in the peak hour of reconstruction, Baliyo Ghar team Dolakha organized 3 Basic Training on Repair and

Retrofitting of Buildings as a part of knowledge enhancement to the engineers, sub engineers and assistance sub-engineers working in reconstruction program in different areas. 60 technical professionals representing different rural and urban Municipalities of Dolakha participated the training in the Year III. The trained professionals can assess the building to retrofit, advise the house-owners and help them in retrofitting their houses.

Similarly, Baliyo Ghar Team Dolakha organized 3 Social Mobilizer's Training for Trainers (TOT) to enhance the capacities of 76 social mobilizers working for different organizations, District Development Committee, Ward Citizen forums and NSET as well. The participants of TOT involve themselves in conducting Social mobilizer's trainings in Dolakha for those engaged in post-earthquake reconstruction activities.



Technical professionals representing different municipalities of Dolakha in Basic Training on Retrofit at Simpani, Dolakha



Participants of social mobilizer's training for Trainers (TOT) conducted at Charikot, Dolakha

Case Study on "Implementation of Correction and Exception Manual" in Lamidada, Dolakha

Introduction

Lamidada Ward no. 2 of Kalinchowk RM of Dolakha located in 38 km far from the district headquarter Charikot. The 1386 HHs have received first tranche grant out of 1530 beneficiary. Up to now 1136 HHs have got second tranche.

This study is about implementation of correction and exception manual in Lamidada for the case of 120 buildings which were constructed prior to deployment of any technical assistance program. The houses were constructed with the metallic angles and wooden frames. The lack of technical assistance and inadequate information led towards the construction of buildings deficit with seismic resistant components. The construction defects were in partition walls and DPC bands. This should be correct to strengthen the buildings. Due to this second tranche was not recommended and created chaotic environment.

Results

- After the implementation of the correction and exception manual the rate of the beneficiaries obtaining tranche has been exacerbating. Out of 120 beneficiaries, 118 have already received the 2nd Tranche and 63 have received 3rd Tranche. Rest of the beneficiaries are still processing for the grant and some are still correcting their buildings. Hence, the correction has facilitated people to receive tranche.
- The similar process now is being replicated in Babare and Chilankha after the successful example of Lamidada
- The process is cost feasible as well as assures the strength of building to resist earthquake.





Challenges

- Initially, it was very difficult to convince the people regarding the assurance of strength of buildings and obtaining the grant amount.
- Some technical problems like, the bands dropping had to be done in some cases due to construction of buildings in sloppy land
- It was challenging to place slurry in the anchoring holes.

Implementation Sequence



Implementation

- Initially, reconnaissance survey was done around the house covering its side elevation in order to determine the prompt location of the missing band to be inserted.
- Since, DPC band was found to be missing first of all, mason threads were placed below the door level. In
 order to maintain the same level, a level pipe was used which later helped to identify the upper portion
 of the DPC band.
- Then using a measuring tape, a length of 300 mm was measured from the top portion of the band. To
 identify the position a mason thread was extended from side to side. The marked position is considered
 as the bottom level of the band.
- From the mark position of the bands the mortar was raked out and the mud and other impurities were taken out from the walls manually. However, water was not used in the process.
- Holes were made on the wall and anchorage steel were placed there and Rebar placed in Buttress walls.
- After that, the reinforcement were placed in the form of horizontal bars (16 mm) and Stirrups (8 mm) were placed. The reinforcements was tied up on both inner and outer faces of anchorage rod with the help of binding wire.
- Application of Micro Concreting using 1:2:4 (M15) mix about 50 mm thick.
- The concrete work cured for 14 days using Jute Bags.













BaliyoGhar Activities in NUWAKOT

NSET is providing technical assistance to 3 rural municipalities (erstwhile 9 VDCs) in Nuwakot district for safer reconstruction through Baliyo Ghar program. Earlier, only municipality of Nuwakot, Bidur was also working area of Baliyo Ghar, but following the decisions and directives of

NRA, Baliyo Ghar program is now not working in Bidur Municipality.

Mason Trainings

In the Year III of Baliyo Ghar Program's implementation, team Nuwakot has accomplished 8 mason training boosting the capacities and knowledge of 210 local masons in the district. In one of the mason trainings conducted in Thansingh, one of the participants, **Mr. Maan Bahadur Shrestha** shared his feelings after the completion of training. He said, "Though we were familiar with urban construction, after the training, we are now clear about reinforcement detailing requirement in a building, especially in beam-pillar junction. We found slab test very interesting and it was very important to understand that we can make building earthquake resilient only if we use materials and technology in a way they are intended to."

In the closing ceremony of the same training, Ward President of Likhu Rural Municipality ward no. 5, **Mr. Ram Krishna Shrestha** present to handover the certificate of completion to the masons thanked NSET team for conducting this training and further requested all the participating masons to follow all the guidelines and techniques they learned in the training directly in the field. He strictly said, "After taking the training, all masons do not seem to



Group of masons after completing the mason training in Thansingh, Nuwakot

work in a way they were trained. I have seen some masons, in the field, who are trained but are not following every aspects of building as taught in the training. So, to give this training a good meaning, you all must follow all the construction work as taught in the training."



On-the Job Trainings (OJT)

Baliyo Ghar program team Nuwakot accomplished 44 On-the Job mason training in the district to enhance the skills, capacity and knowledge of 269 new masons from the regular activities while 175 OJT have been conducted through Trade Link, OJT vendor of NSET through which 1045 new masons have been produced. Those masons are expected to contribute in the reconstruction activities in Nuwakot. And also, 119 houses of vulnerable families in each ward of erstwhile VDC of Nuwakot have been built to demonstrate as the model house in the locality.

Female participants placing the corner vertical reinforcement in one of the OJT sites in Nuwakot.

Focus Group Discussion (FGD) with Women Group and Masons Group held

Two focus group discussion were held in Nuwakot in the Year III. Focused Group Discussion (FGD) targeting trained mason was also conducted on 20th January 2018 in Samundradevi. The total of 29 trained **mason** under Baliyo Ghar Program participated FGD and discussed on theme "Current Challenges and Effectiveness of Mason Training."

Likewise, to understand the knowledge regarding reconstruction and complications faced by the community especially by women in the reconstruction, another Focused Group Discussion was carried out among the 14 participants including community female leaders, housewife and female masons. Also the community people including house owners, masons, students and house-wives were oriented about earthquake safety, preparedness and GESI aspects in reconstruction at Matragaun of Kakani Rural Municipality -8. Altogether, 86 participants including 26 male and 60 female participated the discussions.



Community Orientations

In the Year III, Baliyo Ghar program in Nuwakot oriented 10767 earthquake affected people to aware them about the safer reconstruction techniques and ideas. The orientation package includes the subjects like; earthquake cause and effect, preparedness, non-structural mitigation and tips for safer reconstruction. The orientations were conducted through classroom based power point presentation, using flex in Chautara, open spaces and tea shops as well as using flip charts.



Technical Officer of Baliyo Ghar program orienting communities of Talakhu, Nuwakot.

Basic Training on Retrofit

In the Year III, Baliyo Ghar Nuwakot conducted 3 Basic Training on Repairs and Retrofit for the technical professionals to boost their technical knowledge and capacities regarding the retrofitting of noncollapsed houses in Nuwakot. The engineers, sub engineers and assistant sub engineers from DLPIU- Nuwakot, NSET and other POs participated the training. The total of 88 technical professionals have been utilizing their skills and knowledge in designing, assessing and recommending the retrofit tasks.



Training on repairs and retrofit conducted at Bidur, Nuwakot

Social Mobilizers Training for Trainers (TOT)

To acquaint social mobilizers about the ideas to conduct social mobilization training in the community and to enhance knowledge on social aspects and technical aspects of building the earthquake resistant building, 2 social mobilization training for trainers (SM_TOT) were conducted at Nuwakot with total 56 participants. Social Mobilizers deployed from District Development Committee, Nuwakot, and Citizen Awareness Center of Nuwakot along with Baliyo Ghar program and other partner organizations participated the 3-day TOT.



Participants interacting during the sessions in Social Mobilizer's training for trainers (SM-TOT)

Technical support through Mobile Clinics

Lack of knowledge and awareness in house owners and masons about the safe construction practices and policies are major contributors to the construction of unsafe structures. Therefore, providing relevant information regarding safe construction practices to the house owners and masons is quite important task to ensure safer reconstruction. To disseminate the technical information and assist house owners to build earthquake resistant houses, technically and socially sound mobile team conducts mobile clinic in every house holds of Baliyo Ghar Program areas. Baliyo Ghar Mobile Team with the concept of blanket technical assistance, has reached almost every households to support masons and house-owners to ensure safe construction.



Social mobilizer and technical officer of Baliyo Ghar program visiting a construction site at Samudradevi, Nuwakot

MoUD CLPIU Director Visits Construction sites in Nuwakot



MoUD CLPIC Director Mr. Khadka and Technical Advisor of NSET Mr. Surya Bhakta Sangachhe visited a construction site in Nuwakot

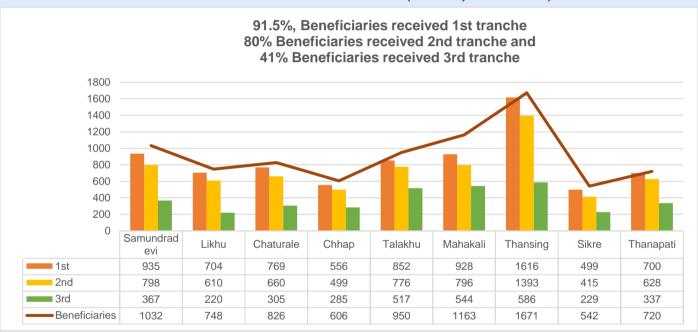
The then MoUD CLPIU Project Director Mr. Tapendra Khadka visited construction sites in Nuwakot along with the team of NSET-Baliyo Ghar Program. He observed the under construction houses in Thansing, Chaughada, and other areas of east Nuwakot. He visited a complete OJT site at Chhapthok, Thansing. He interacted with house owner, head mason, trained mason and Baliyo Ghar team regarding OJT implementation. Also he visited the under construction house in Chhapthok, Thansing those being technically supported by Baliyo Ghar Program and observed ongoing construction of 5 one-roomed houses.

Key Impressions and Remarks from CLPIU Director

- Technical quality of construction and roofing is good.
- Skill testing of newly trained masons by CTEVT
- Selection of house owners for OJT should be on consensus
- Retention of newly trained masons and facilitation by NSET

The visit went successful in removing various rumors regarding OJT implementation under Baliyo Ghar Program

Reconstruction Scenario of Nuwakot (as of September 2018)



Mina Laxmi, who had to rebuild two houses...

Mrs. Mina Laxmi Gurung is a single women and the inhabitant of Jebrang, Mahakali, one of the villages of Shivapuri Rural Municipality-Nuwakot. Her house got collapsed during the Gorkha Earthquake. As she couldn't manage to be under the temporary shelter for long, she started rebuilding her home before the technical assistance program of government reached her village. But after the intervention of Baliyo Ghar program, when her house was found non-compliant and she was struggling to receive government grant, she was advised to correct her house which later she couldn't do. After multiple consultations with Baliyo Ghar team she built another house which looked smart and obviously was earthquake safe home. She says, "Though I suffered in rebuilding two houses after the quake, now I am happy to be under the earthquake resistant house. I will put my food stuffs and other necessary items in the unsafe house and sleep in the house with bands and other safe elements."



BaliyoGhar Activities in DHADING

NSET is providing technical assistance at 5 rural municipalities and 1 urban municipality (Erstwhile 11 VDC and one municipality) in Dhading district for safer reconstruction through Baliyo Ghar program. And other parts of district have been covered through On-the Job Training (OJT) being implemented through vendors. Different activities have been accomplished in the Year III of Program implementation.

On the Job Training

Baliyo Ghar program has covered all of the areas of Dhading through On-the Job Training program. In the program implemented areas, Team Dhading has accomplished 104 On-the Job Trainings in the district through regular program activities and 203 more OJT through vendor. Altogether 1833 new masons have been developed through OJT in the Year III who are now contributing as active masons in the different villages of Dhading.





New masons at work in House of Ram Bahadur Nepali at Jyamrung, Boshi Gaun-Dhading being constructed under Baliyo Ghar OJT Program

Mason Trainings

In the year III, Baliyo Ghar - Team Dhading accomplished 18 mason trainings to enhance the skills, capacity and knowledge of 466 local masons of the district.

Mason Training of Trainers (TOT)

In the year III, Baliyo Ghar - Team Dhading accomplished 2 mason training of Trainers (TOT) to enhance the skills, capacity and knowledge of 61 technical professionals, engineers, architects and subengineers involved in post-earthquake reconstruction in Dhading.

Community orientations

Orinatation for women in Nalang Dhading Likewise, in the Year III, Baliyo Ghar program Dhading accomplished 600 more community orientations to aware the locals for safer reconstruction. 13836 locals benefited by the orientations. The orientations were conducted through classroom based power point presentations, using flex in Chautara and Tea Shops and as well as using flip charts.

Social Mobilizers training

Unless and until social mobilizers of our community are not upskilled it can be a great challenge to cater prosperity, sustainable development and safer reconstruction in the community. As Baliyo Ghar has been deploying numerous number of Social Mobilizers in Dhading to promote safer reconstruction, those social mobilizers have been provided with the capacity building training time and again. In the Year III, Baliyo Ghar – Dhading conducted 2 social mobilizers training for trainings enhancing the knowledge and skills of 54 social mobilizers.

The training aims in making common understanding on basic information about societal aspects for community development and social mobilization. Similarly, the participants are made familiarized about earthquake safety, preparedness and technical aspects that will assist in safer housing construction.





"Before the mason training conducted by Baliyo Ghar Program I had no idea about the earthquake resistant houses, though I practiced masonry works for 20 years. After the training, I helped rebuild 17 more houses in Khalte, now I have not limited my knowledge and learnings to myself rather I am guiding the new masons to do as per my learning during the mason training and continuously I supervise the work too. Travelling to the abroad for job opportunity was common in our village, but now it has been stopped. I have 2 ex-drivers working with me. Earlier they used to earn Rs. 15 thousand per month but now they are making Rs. 30 thousand, it's quite pleasing. During training, we tried our best to make us understand and we learnt very well too. We are informed that if we need help Baliyo Ghar team will be available at any time to help and suggest us. Personally I am very much impressed and will have impactful jobs in reconstruction." — Purna Bahadur Gurung, a Trained Mason from BaliyoGhar in Khalte, Nilkantha, Dhading

The first Earthquake Safe House in Jyamrung, Dhading

Mr. Krishna Bahadur Gurung, 66, is a social influencing leader of GairiGaun, Jyamrung - ward 11 of Nilkantha Municipality Dhading. He was elected as the Chair of Jyamrung VDC during 2049 B.S. local elections. He spent last 25 years advocating about the development of Jyamrung area, social works and household works. He is now advocating safer and better reconstruction. Gurung family is the first



beneficiary to rebuild earthquake resistant house in Jyamrung, earlier a VDC before the federal system came into force. He received technical assistance from NSET implemented and USAID supported Baliyo Ghar program in rebuilding his house.

"Stones, timbers of previous house worked for new one"

Mrs. Tika Kumari Gurung, spouse of Mr. Gurung brought the framed photo of previous house, which they lost in Gorkha Earthquake. The new one looks a lot like the older; bars in terrace, color and design almost the same except the roofing. "The house before the Gorkha Earthquake was beautiful but it wasn't strong enough as got collapsed

during the shakings. Now we have built earthquake resistant house with earthquake resistant elements incorporated, it won't collapse again," Mr. Gurung said. Remarkably, Gurung family have used the stones, timbers collected from the collapsed house to rebuild new one. "I saw they could work, we had well-designed doors and windows, so why should I left them unused? Even the railing bars have been used from the previous house. Indeed these were the precious materials buried in the debris," Mr. Gurung stated.

Orientation and Mason Training Concreted the Safe house Aspiration

10 months after the Gorkha Earthquake, Baliyo Ghar conducted community orientations regarding earthquake safety, preparedness and safer reconstruction in Jyamrung, where Mr. Gurung was one of the participants. He says he participated the orientations of BaliyoGhar thrice. "I learnt a lot about the earthquake cause and effect along with safer reconstruction techniques. We lacked the bands and corner stiches in our previous houses. Later, rural mason training was conducted in Jyamrung where Mr. Bel Bahadur Gurung and his friends enhanced their knowledge and skills regarding rural housing reconstruction. Soon after the mason training, Gurung family deployed Mr. Bel and his friends in rebuilding their house. "During the orientations Mr. Gurung was a keen participant who raised several questions regarding safe houses, his aspiration to build earthquake safe home was concreted by both orientations and mason training that we conducted 17 months ago. He was the first beneficiary to rebuild earthquake resistant in Jyamrung area," Bhim Nepali, Social Development Officer of BaliyoGhar said. As Mr. Gurung says he used to visit mason training venue and tried to observe what exactly the masons were learning. Also he had been to the demonstration model built during mason training several times to notice the earthquake elements incorporated.

Mr. Gurung family is now happy to be in strong house and delighted to receive all 3 tranches of government grant worth Rs. 3 hundred thousand. "As per my experience, stone masonry house should not be tall enough, now I am advising neighbors and villagers to build houses by using trained masons and based on set standards," Mr. Gurung said. Mrs. Gurung is also pleased to be in safe home, the house exactly same as previous. She said, "By seeing its appearance, I have forgotten the miseries we passed through soon after the earthquake."

Baliyo Ghar activities in KATHMANDU



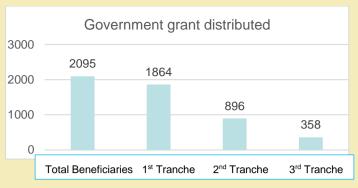
Baliyo Ghar program conducts its program activities in Kathmandu in the direct supervision of Baliyo Ghar head office. Baliyo Ghar head office team functions as the National Reconstruction Technology Center (NRTC) through which national level program activities are carried out. Training to the government engineers, talks and discussion with government authorities in regard to policy, program implementation and other aspects of reconstruction process are being held at Kathmandu. Likewise, Baliyo Ghar is providing direct technical assistance to one of the municipalities of Kathmandu i.e. Kageshwori Manohara Municipality in the north-east of Kathmandu. It's one of the most-quake-hit area in Kathmandu Valley where 3216 households collapsed during Gorkha Earthquake. The reconstruction process was delayed in the municipality due to delayed survey and late grant distribution. Baliyo Ghar conducts its activities in 3 wards of the municipality where altogether 2095 households have been enlisted as earthquake beneficiaries. Its more than 70 percent of the total households collapsed in whole municipality.

Till Sep 2018, total number of 358 households have received third tranche of government grant and 896 households have received $2^{\rm nd}$ tranche. That means more than 900 earthquake affected households have rebuilt their houses. Baliyo Ghar program is providing technical assistance reaching every households in the municipality with the full coordination with municipality and elected local government representatives.

Mobile team consisting 2 Engineers and 2 social mobilizers of Baliyo Ghar program have been deployed in the municipality in direct supervision of Head Office. In the year III, Baliyo Ghar Team Kageshwori has accomplished 5 mason trainings producing 132 trained masons. Likewise, 60 more community orientation programs have been conducted in 3 wards of municipality where 2166 beneficiaries have been benefited directly.

Basic and Advance Trainings to the Technical Professionals

In the Year III, Baliyo Ghar organized 1 basic technical training and 2 Advance training for the technical professionals where 77 engineers, sub engineers and architects have enhanced their knowledge and capacity. Likewise, 2 advance trainings on Retrofitting have been organized where 56 engineers engaged in post-earthquake reconstruction have been acquainted with the knowledge and skills regarding retrofitting the masonry buildings.



Reconstruction Status in 3 wards of Kageshwori Manahara Municipality (As of Sep 2018)

83 more full instructors developed through 3 Training for Instructors (TFI)



In the Year III of program implementation, 3 editions of Training for Instructors (TFI) course have been completed under NSET-Baliyo Ghar program. 83 participants; specifically Engineers and Social Development Officers engaged in post-earthquake activities benefited from the training. Among the participants majority were from NSET programs, others represented from DUDBC, different municipalities, Housing Reconstruction and Recovery Platform (HRRP) and some partner organizations.

3rd and 4th series of TFI were conducted in Tewa, Dhapakhel and 5th of its kind was conducted in Khusi Khusi, Matatirtha Kathmanddu. Government high officials were present to handover the certificate of completion to the TFI graduates in all of the series.

Mr. Netra Prasad Subedi, Joint Secretary of National Reconstruction Authority (NRA) and Dr. Amod Mani Dixit, Executive Director of NSET were present to handover certificate of completion to the TFI graduates of 3rd series.

Mr. Subedi encouraged participants to implement the knowledge and skills gained through training in the respective field of works and appreciated the efforts of NSET/Baliyo Ghar program in producing skilled manpower to build resilient Nepal. Likewise, Dr. Dixit shared his experience of conducting TFI in Nepal and its impact in enhancing the personal skills of Instructors and developing qualitative trainings.

Mr. Krishna Prasad Duwadee, Joint Secretary and Spokesperson of NRA and Mr. Surya Narayan Shrestha, Executive Director of NSET were present in the closing ceremony of 4th series.

Addressing Closing Ceremony of the training course, Mr. Duwadee urged participants to transfer the knowledge and skills gained through training. He said, "Till this training all of you were merely an individual human resource, but from today you have been like a resource producer, who now should focus on transferring the knowledge and skills for betterment in the post-earthquake activities."

Mr. Shrestha congratulated all the graduates and requested them to implement the skills in trainings, orientations and other reconstruction activities.

Likewise, Mr. Pitambar Ghimire, Joint Secretary and Spokesperson of NRA and Dr. Ramesh Guragain, Deputy Executive Director of NSET were present in the closing ceremony of 5th TFI.

Addressing Closing Ceremony of the training course organized in Khusi Khusi Resort, Kathmandu, Mr. Ghimire encouraged participants to contribute their best in post-earthquake reconstruction activities and implement the knowledge and skills gained through training. He said, "The TFI training is like Commando Training as I learnt, you were the lucky ones to participate as we have less TFI graduates in Nepal and on behalf of NRA and government as well I commit to utilize the skills and knowledge you have attained during the course."



Putting his remarks in the ceremony, Dr. Guragain shared his experience of conducting TFI in Nepal and its impact in enhancing the personal skills of instructors and develop qualitative trainings.

With the completion of 5 TFIs, altogether 140 TFI graduates have been produced under Baliyo Ghar Program and 5th series was the last TFI Program as of the plan of project so-far. Baliyo Ghar organized 3 TFI in Nepali and 2 TFI in English as the language of instruction.

TFI is a rigorous 5-day instructor development course. The purpose of the course is to provide the participants with a training methodology and specific personal skills that will assist them in improving their knowledge and skills to develop, present and manage effective training programs. TFI was developed by the USAID/OFDA in collaboration with the Miami-Dade Fire Rescue Department. NSET used this curriculum and strategy while implementing PEER Stage2 (2003-2009), PEER Stage3 (2009-2014) and PEER Stage4 (2014-2019). The TFI English curriculum has now been translated into Nepali and Bangla under the PEER program.

Promoting safer reconstruction through Mass Media

Mass media has been one of the most effective means to reach to wider population for awareness raising through disseminating information, knowledge and ideas. Baliyo Ghar program has collaborated with various media mainly Radio Stations and Television Channels for the central and national level and local level media advocacies and campaigns through producing and broadcasting regular weekly magazine and messages on earthquake resilient construction techniques. TV Program has great sense in disseminating the purposed information and ideas as number of television viewership is increasing day by day.

diversified issues of reconstruction from the field, highlighting the success stories and good practices, seeking the answers from concerned authority and stakeholders regarding the problems of earthquake affected people and hindrances of reconstruction process are some of the subjects that Baliyo Ghar TV Program particularly focuses on.

In countries like Nepal where access to the internet is limited and illiteracy rates are high, radio stations play a major role in sharing information. Local radio is most important to local communities for more than just

produce Baliyo Ghar radio magazine in the program areas. The individual regular weekly radio programs are 30-minute magazine format and were aired twice a week from each station. Each radio airs the messages (PSAs) on safer reconstruction practices and processes 10 times daily. The community based and local radio stations carry 70 percent of local stories (stories of beneficiaries, success, problems and challenges) and 30 percent of program content focuses on policy and processes.

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Also Social media has been one most effective tool and platform these days. Baliyo Ghar program has exclusive pages on Facebook, Twitter and YouTube channel to serve with information, knowledge and ideas on safer reconstruction. Baliyo Ghar Communication is also coordinating with mass media in raising social awareness on reconstruction. Coordinating with National Broadsheets, Radio stations and organizations, local mass media and media personals has also been a regular activity. Writing articles and news report of reconstruction in national media and helping them find cases, stories of the earthquake affected people and achievements in reconstruction are some of the activities done in Year III.



Program Manager Mr. Ranjan Dhungel talking to Mr. Arjun Shrestha, Radio Journo of Radio Dhading

Weekly Half-an-hour TV Magazine Program "Baliyo Ghar" has been great platform for learning, sharing and advocating for safer reconstruction. The program covers diverse issues of reconstruction policy instruments to technology to local practices and various phases and aspects of reconstruction processes. With the aim of reaching most of the earthquake affected districts through different TV channels, Baliyo Ghar partnered with All 3 Media Ghar, a production Agency and is broadcasting Baliyo Ghar TV program through 3 different channels namely; Kantipur Television, News24 Television and Avenues Television. Altogether 123 Episodes have been produced and broadcasted in 2 and half years of collaboration. In the Year III. 52 Episodes of TV Program have been produced and aired 468 times through 3 national TV channels.

Simplifying the technical complexities of building earthquake resistant houses and getting them broadcasted through national channels, filling the gap of information among the policy makers and beneficiaries, setting the agenda for safer and better reconstruction, passing the updated information through public service announcements, covering the

emergency announcements and communication during disasters. They provide an outlet for normal community messaging and play a vital role in convincing the listeners and help in decision making. To promote safer reconstruction, advocate on the earthquake technology and make the voices of local community heard, Baliyo Ghar Program partnered with 13 local radio stations to



Promo of TV program in 114 Episode

Testimonials

"Balivo Ghar TV Program has been very useful for us"



Naresh Jha Engineer, National Reconstruction Authority

I am a regular viewer of Baliyo Ghar TV Program. If time doesn't supports, later I watch it on the Youtube. Definitely, this program has been really helpful not only for the earthquake beneficiaries but also for the engineers involved in reconstruction. I am often engaged in mason training and orientation in the quake hit areas. Baliyo Ghar TV Program has advocated and encouraged for the use of locally available materials in rural housing reconstruction, which I found to be the most beautiful and impressive part of the program. When I go for door to door visit, I show the episodes of Baliyo Ghar TV Program which I have downloaded from the Youtube to the beneficiaries. It's been a medium to convince and showcase the success stories of one particular village to the other areas which really encourages the viewers.

"Changed our perception after watching Baliyo Ghar TV Program"



Bina Shrestha, House owner Bidur-8, Baguwabazar, Nuwakot

I often watch Baliyo Ghar TV program with my family members. I like the contents and issues that are highlighted through the program. Quite after the earthquake we were very worried about the future days because our stone masonry house was collapsed and we had not such economic strength to construct RCC house. There was a rumor that stones were our enemy so one shouldn't build houses with stones and mud mortar. We had made the same perception and were worried about rebuilding our collapsed house. But whenever we went watching Baliyo Ghar TV Program, we came to know that stones were not our enemy rather we could build earthquake resistant houses through stones and timbers that are available in our locality. The program changed our perception. And of course, mobile team of Baliyo Ghar Program supported us in decision making and other technical details. Now, we along with villagers are building.

Awaking people through IEC Materials



Elderly man of Dolakha reading 10 points poster regarding tips for earthquake resistant building construction distributed by Baliyo Ghar

IEC materials have been very effective means of communication and information tranfer in the quake hit areas. Baliyo Ghar has been producing and disseminating different IEC materials that carry the message of safer reconstruction and earthquake safety including preparedness.

In the year III, Baliyo Ghar program disseminated 13303 copies of different IEC materials in the quake-hit areas of program districts to aware beneficiaries about the techniques of safer building construction. Posters, flyers and booklets have been distributed in every wards of program areas and they have turned to be effective means of communication to achieve the purpose. Masons, even after the training take the 10 points poster to their home and look over it when they get confused in constructing earthquake resistant homes. 10 points posters and booklets, carriying the messages of idea and techniques of building safe houses have been used by literate masons, houseowners, school childrens. Posters pasted in public places like Chautara, public gathering areas like tea shops and schools have been seen very effective to aware earthquake beneficiaries.

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Impact stories of Baliyo Ghar Radio Program

Story of Renumaya Magar

Galchhi Rural Municipality- 1, Dhading

Mrs. Renumaya Magar, 46, lives in Galchi Rural Municipality -01, Dhading. She lost her 2 storeyed house during Gorkha Earthquake. After the house was completely collapsed, Mrs. Magar's family started to live in temporary shelter and it remained for 1 year. She had no idea about the government process of grant distribution and earthquake resistant technology. She even was unaware about receiving the technical support. One day, when she was tuning Radio Dhading 106 MHz, she listened about the reconstruction processes and also about the technical assistance program; Baliyo Ghar program. After that day, she started tuning Baliyo Ghar Radio Program weekly and as she says she used to keenly wait the program airing time. After getting the information about the grant receiving process and technicalities of rebuilding earthquake safe house, she seeked the help from neighbor mason. And started rebuilding her home.

She says, "Started rebuilding my home, I continuously listened to the Baliyo Ghar Radio Program in Radio Dhading, which helped me in upgrading my understanding regarding the safer reconstruction techniques and other ideas as well." She claims she used to request her neighbors to listen to the program and have knowledge about the reconstruction process and practice. When one of the reporters of Radio Dhading reached her village in collecting the reconstruction stories, Mrs. Magar had already finished rebuilding her home. She expressed her happiness in having earthquake resistant home and shared her gratitude in helping the earthquake affected people like her to make better understanding on reconstruction.

She said, "The stories that the program covers from different areas of Dhading has motivated others and encouraged for safer reconstruction."

(Based on the talks with Mrs. Magar at her house)



Reporter of Radio Dhading Mr. Arjun Shrestha talking to earthquake beneficiaries



Success Stories from Grassroots

Amusing smile of Old Man after completing a quake safe home

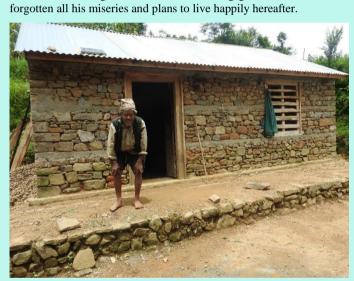


With none in the family, one can imagine how 80 years old man Mr. Lato Tamang, a resident of Shivapuri Rural Municipality -03, Sikre, Nuwakot has spent his days and nights throughout years. Having problem in language and with his tongue-difficulties Mr. Tamang cannot make others understand what he says but one can derive the meaning looking at his gestures. Having spent miserable days and months, having spent unconducive climates Mr. Tamang no longer saw no days ahead in his favor after his house collapsed during Gorkha Earthquake. But now, he is planning to live a happy life after being under the roof of the quake safe house. He shows his fore finger with amusing smile and one understands he is indicating that he still has Rs. 1 Lakh (grant amount of 3rd tranche) to receive from government. His neighbors say, "He is astonished to save some thousand rupees which he plans to spend in the days to come."

Mr. Tamang is alone in his house for more than 10 years. His only son had been to India 15 years back and his wife waited him for 5 years but when she couldn't welcome him back to the home, she eloped leaving 2 sons with their grandfather. Few years later, when the two grandsons were also taken to Gumba - Kathmandu by some of their relatives, then Mr. Tamang started his lonely life. He had a house surrounded by few square meters of land where he used to cultivate vegetation for his survival. But when the house got collapsed during 2015 Gorkha

Earthquake, Thanks God! He was saved, but his miseries mounted. After the devastating earthquake, he stayed in a poor temporary shelter for 3 years.

Balivo Ghar Program has been implementing On the Job Training (OJT) in Mr. Tamang's village Sikre. After a series of discussion with ward committee and villagers, Tamang's house was chosen to implement OJT but Tamang had no money to start with. He just had the 50 thousands of first tranche. He was in need of more than 70 thousand rupees to collect construction material. But he could find none to provide loan. In initiation of mobile team of Baliyo Ghar, three villagers invested him with 20 thousand each and Baliyo Ghar began 50 days OJT in his house. He himself was involved in reconstructing his house. He forgot his old age in carrying stones with his old bare hands and carrying water with difficulties. After 50 days, Mr. Tamang's house was ready. During the course, he received the 2nd tranche of government grant and paid back the loan. He was astonished to pay back the loan and get his house ready to live in. In the Mid-August of 2018, he deployed his relatives (trained masons) to construct toilet so that he could easily get 3rd tranche of government grant. When he remembers 1 lakh rupees still to get he raises his fore fingers and says 1 still to come with amusing smile. His overwhelming gestures shows he has forgotten all his miseries and plans to live happily hereafter.



Baliyo Ghar helped a depressed young boy transform his life

When Gorkha Earthquake struck entire central region of country in April 25, 2015, Mr. Krishna Prasad Dhungana had just sat for lunch (morning meal) in the ground floor of his house at Jogidada of erstwhile Khalte VDC of Dhading District. His mother was serving food to him and his father was about to take meal. As soon as the ground shaking started, young and agile Mr. Dhungana promptly went out of door. However, his father and mother could not do so. As the house caved in, they crushed to death by the debris and the wreckage of the house.

"As I rushed to outside of the house, I thought my parents would also follow me. But they didn't do so and died instantly as the collapsed house buried them," Mr. Dhungana narrated. He assumes that his parents might have thought that the shaking would be lighter one, at least not as devastating as it turned out to be. Although, he rushed to outside of house and managed to save his life, but could not escape unhurt. He too sustained injuries in his leg.

Quit study, inflicted depression

Mr. Dhungana, second child of his parent, was just 18 and had just completed schooling of plus 2 level at the time of earthquake.

The earthquake brought a grave consequence in Dhungana's family and his personal life as he lost his both the parents. Obviously he turned orphan, but also lost his hope of future too. Prior to the incident, his life was completely dependent on his deceased parents. They were funding



Mr. Krishna Dhungana (21) of Khalte-Jogidada of Dhading peeking through window of his newly built house through Baliyo Ghar OJT program. He lost his parents in the earthquake as his house caved in due to quake.

the money for his education and livelihood as he was too young to earn on his own. With the death of both the parents, he lost all the hopes of his life ahead. His educational journey got derailed. The agony of losing parents inflicted him depression and mental problems too.

9 killed in Jogidada settlement only

Jogidada aka 'Bahundada' is a small settlement of the Khalte VDC where entirely Brahamin community are living in. Around 40 families are residing at the settlement. There have been very few houses got completely collapsed in the rest of the VDC. However, the Jogidada settlement went through a devastation of extreme in nature. Not a single house remained standing. Altogether 9 people lost lives while more than 15 people sustained injuries in the incident.

Returned village, rebuilt house

After concluding the 13-day rituals of his deceased parents, Mr. Dhungana left village and went to Kathmandu and elsewhere. After living almost two years outside of village, Mr. Dhungana returned village for 2074 Dashain. Upon his arrival at the village, his elder sister, who was married long before the earthquake, insisted him to rebuild the house using government reconstruction grant. NSET/ Baliyo Ghar Program was assisting villagers in providing technical assistance to reconstruction of earthquake flattened houses in the village. With view to produce construction workforce through training of unskilled masons, it is also organizing On the Job Training (OJT) in the program area where one each houses of all the 9 wards of erstwhile VDC are built as part of OJT. In so doing, the house-owner also contributes small amount of money to pay to trainee masons.

Mr. Dhungana's elder sister requested Baliyo Ghar program for assistance in rebuilding house of her brother as part of OJT. The ward office and elected ward representatives also unanimously recommended his name for the OJT considering his's case.

Acquired construction skill and new house together

NSET - Baliyo Ghar program began the reconstruction of his house from last week of month of December 2017 as part of 50-day OJT. Mr. Dhaungana also involved in the reconstruction process as trainee mason. However, he had to play duel role; collecting all the construction materials and participate in the construction work. He, however, managed it successfully. "I would not have able to reconstruct new house, had NSET/Baliyo Ghar program not helped me," Mr. Dhungana said.

Now, he has acquired construction skill as well as a new house which can withstand the future earthquakes. "The new house is totally different from old one as I have incorporated various earthquake resistant elements such as foundation band, Plinth band, lintel band, corner stitching and vertical rods among others. I am sure that new house would not be collapsed at least immediate after shaking starts. Hopefully provides time to come out of it during the earthquakes," said Dhungana.



Mr. Krishna Dhungana with his friends standing in front of his newly built house through Baliyo Ghar OJT program.

Planning to marry and live in new house

After the death of his parents, he has been living his life alone. In order to kill the loneliness, Mr. Dhungana is thinking to wed in near future and live rest of the life with his wife in the house. He has also made his mind that he would not go elsewhere to seek jobs but to live in the village. "Despite the fact that I am a single, I have built two-room house as I am thinking to wed very soon," he said.

Delay in releasing grant causing problem in repaying debt

Although a strong and new house has been rebuilt which certainly accommodates him and his would be family. But, he is worried over not getting the government grant in time. Although, the construction of the house is virtually accomplished, he has not received the house grant except first tranche of Rs. 50,000. It has been halting him to repay the loan which he used in rebuilding house.





Baliyo Ghar Program Success Stories of Reconstruction





As rural Nepalese have the culture of labor share in agricultural works called Parma System, trained masons in Bigu Dolakha have been reconstructing their village through Parma which has indicated the consistent and robust reconstruction in Bigu. Locally available materials like timbers, smooth stones have been used and the color used in doors and windows have added beauty in the newly built houses.

- Bigu Rural Municipality, Bigu Gaun, Dolakha

We are now back to our normal life but to arrive here, we have passed so many dark days and night. We remained under the plastic tunnel prepared for vegetation for more than 2 years. It took 1 and half years to know what exactly the seismic resilient house is and another half year to build this house. My wife and me are very happy to be in quake safe home.

- Mr. Purna Thami

Resident of Aalampu village, Dolakha

National Society for Earthquake Technology-Nepal (NSET)





Baliyo Ghar Program Success Stories of Reconstruction





Though worked as mason for 20 years more, I had no idea about the vertical reinforcements, bands, corner stiches etc. which now have been incorporated in newly built houses. Actually, Mason Training conducted by Baliyo Ghar was a turning point for me to engage myself in safer reconstruction process. Quite remarkably, I have been paid good wages and all of the houses have been approved for grants.

- Ms. Chatra Man Tamang

Trained Mason, Thanapati, Nuwakot

Despite having livelihood problems, I am very happy and feeling lucky for getting new house as early as lot of the fellow villagers who are still under temporary huts. I am very grateful to Baliyo Ghar program that fulfilled my dream of a quake safe home.

- Ms. Maya Pariyar

Single women, Siddhalekh Rural Municipality, Nalang, Dhading



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