
Recovery and Reconstruction Working Group

Technical Training Briefing

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Introduction

- The briefing on technical training was delivered by the [National Society for Earthquake Technology – Nepal \(NSET\)](#), an organisation with a wealth of experience in technical assistance and training both from work in Nepal, as well as in other countries, e.g. response to the 2005 Kashmir earthquake in Pakistan
- Technical Assistance (TA) has many elements but the briefing focused on technical training, with the intention of ensuring that trainings are consistent and efficient in the delivery of training and knowledge transfer
- NSET emphasised that the training concepts and systems they are proposing are ideas and NSET request partners to provide feedback and suggestions and to work together to further develop, and improve the proposed concept

Proposed Training Courses

- Training courses are proposed for the skill enhancement of existing masons, to develop new masons (on the job training and CTEVT course), and on retrofitting.
- Training for skill enhancement of existing masons is very important immediately in order to provide existing masons with the skills and knowledge required to incorporate EQ resistant measures in the construction of houses. NSET have developed a modified training curricula for this
- New masons will also need to be developed in order to meet demand. NSET are providing inputs to CTEVT to ensure that elements of EQ resistance are included in the 3 month course for new masons. NSET are also developing On the job training process as a quicker and more effective way of developing new masons
- The advanced training course on retrofitting technology for masons, will be particularly useful for urban areas
- Refresher courses are needed to keep masons skills at the correct level

Training for Skill Enhancement of Existing Masons

- 5 days courses on stone masonry, brick masonry, and reinforced concrete have been developed as a revision to the existing DUDBC training materials in order to make it modular and enable training to be focused to needs in the area
- The three courses can be combined and delivered over 8 days as basic components of all are the same
- The existing 5 day training course for masons was developed in 2011 and NSET were part of the course development. NSET have been implementing this course but found that it is more urban focused, with more focus on RCC frame structures and lower coverage on rural buildings such as stone masonry, brick masonry

Training for Engineers, Technical Professionals, Social Mobilisers

- Trainer development for engineers / technical professionals supports their development, through a structured process, to become a certified instructor
- End-user training is provided for engineers / technical professionals who don't want to be instructors but want to improve their skills as practitioners
- Training for social mobilisers is essential as the reconstruction is not just technical, there are many social aspects to consider. Includes general orientation on the reconstruction programme

Instructor Development Process

- The development of Master Instructors (for all components masons training, social mobilisation, house owner orientation, orientation for decision makers in the district) is carried out through a 12 step process
- It is possible to become an instructor for each component separately also
- Key steps in the process are: 1. Complete ToT, 2. Observe training course being delivered, 3. Participate in delivery of training course as an assistant instructor, 4. Complete Training For Instructors (TFI) course, 5. Deliver course as full instructor. On completion of these steps the trainer is then certified by senior instructors
- The Training For Instructors (TFIs) course is designed to provide participants with the general skills required to deliver training effectively

NSET Technical Assistance and Training Programme

- The NSET technical assistance and training programme is funded by USAID and will be implemented in three districts, Nuwakot, Dolakha, and Dhading
- Within this programme there are a number of planned training courses, including ToT for masons training that will be offered to POs staff with three courses at national level and 5 in each of the three target districts
- The first ToT for masons training at national level will take place immediately after the Dasain festival, starting on the 27th or 28th October, and a maximum of 24 participants can take part
- The participants in the ToT would be expected to go through the whole instructor development process as outlined above
- The cost per ToT for masons training is estimated to be 4000 USD, NSET will deliver the three at national level and 5 in each district but if more are required then will need to discuss and organise funding
- The Training For Instructors course will be delivered once in each district, and twice at national level. There is a lower number of TFI courses than ToT courses as based on past experience not all participants in ToT will go through the full instructor development process
- The revised training materials for masons training have been submitted to DUDBC for approval. The materials have been tested in Dolakha, Lamjung, and Sainbu; DUDBC have formed a sub-committee for reviewing and approving training curricula. It is expected that the NSET training materials will be approved before Dasain and will then be shared with POs

5 Year Training Plan

- Outlines training process over 5 year reconstruction
- During instructor development process trainings will be on-going so as instructors are developed, masons are trained, homeowner orientations go ahead, and social mobilisers are trained

Questions / Discussion

- The timeframe for training presented is 5 years, this seems very lengthy. Is the presented programme a GoN recognised programme? It was presented that NSET will implement these trainings in Nuwakot, Dolakha, and

Dhading, does the GoN have a plan for similar activities in other districts? Is the training plan presented specific to the earthquake response or a regular skills enhancement programme?

- The training plan presented is specific to the EQ response
- The Shelter Cluster, through the Recovery and Reconstruction Working Group (RRWG), are working with the GoN to ensure a coordinated effort from POs in terms of delivering technical assistance and training to all affected communities, across all districts
- Based on previous experience, 5 years is a realistic timeframe but this could be longer or shorter in practice. The technical assistance which will accompany the training is also planned over a 5 year duration
- In terms of training, the objective is to provide consistent, quality training in all districts
- For the ToT for masons training that will begin immediately after Dasain, on the 27th / 28th October, how will participants be selected / invited? How can POs enrol their trainers?
 - Through NSET's programme there is funding in place for 3 ToT trainings for POs staff, for a total of 72 participants (maximum no. of participants per training is 24)
 - The ToT is a 7 day training, the training costs will be covered but the PO will have to cover the participants' costs for accommodation, transport, etc.
 - POs who have staff that they would like to put forward for this training should write to Siobhan Kennedy, tech2.nepal@sheltercluster.org, providing the following information:
 - The number of staff members who would like to participate in the training
 - The educational level of these staff members, e.g. bachelors degree or diploma in engineering
 - The level of experience of these staff members, e.g. 0-2 years of work experience
 - N.B. the minimum criteria are that the participant must have a diploma or bachelors degree in engineering, and at least 1-2 years of work experience
- What is the difference between the ToT courses and the Training For Instructors (TFI) courses?
 - The ToT courses are specific to each training, e.g. ToT for masons training, ToT for social mobilisers training, etc. and are focused on how to deliver the specifics of these courses. The Training For Instructors (TFIs) is more generally about training skills and is applicable to all types of training. It is focused on how to deliver effective training, communications skills for trainers, preparing exercises, the basic elements of adult learning. In essence the TFI course develops you as a trainer, the ToT courses develop you as a trainer in relation to a specific training course.
 - NSET have already delivered more than ten TFI courses in Nepal before the earthquake, including for NSET engineers, the Rural Access Programme in Eastern Districts after the 2011 EQ, for DUDBC engineers, and other partners
- Have environmental aspects, such as sustainable sourcing of material, recycling of materials, etc., been incorporated into the training material? If not, is this something that could be included?
 - Currently the training material does not include environmental aspects as NSET do not have such expertise, but this is very important and relevant and if there is support available to incorporate this into the training materials that would be very much appreciated. There is a need to have training courses on such cross cutting themes, such as environment, sanitation, etc.
- If POs want to see more training courses happening can they contract NSET for this?
 - NSET has funds in place to conduct a certain number of trainings, including for POs staff. Beyond this, other trainings can be organised but funding would need to be found for this
- Once POs staff have gone through the ToT are they then able to access the NSET training materials? How would this be managed in terms of quality assurance of training delivered by POs using NSET training materials? How do the NSET training materials and course link and compare with the GoN equivalent training programme?
 - The revision of the training materials by NSET has been done in consultation with DUDBC and DUDBC are now going through a very extensive review of the materials

- Once DUDBC have approved the training materials they will be distributed widely and the course will be available for any organisation. The materials will be published in book form and in CD / DVD so that any organisation can use it
- It is recommend that for proper use of the materials, trainers should complete the ToT and go through the instructor development process
- The DUDBC approved training materials for masons, developed following the 2011 earthquake, covers alternative building typologies, sustainable housing aspects, etc. are these covered in the revised materials?
 - The 5 day training course covers many technologies but the depth of the exercise is not sufficient to ensure that masons acquire the skills and knowledge required
 - During tests of the five day curricula it was found that masons were not able to understand and gain the required skills when the course covered the three main building typologies, as well as other technologies, over just 5 days
 - This is why under the revision of the materials NSET have split the training into three different modules for RCC, stone masonry, and brick masonry to ensure that masons have sufficient time to gain the skills and knowledge required for the most relevant building typology
- Will the trainers trained by NSET be certified by the GoN?
 - This is currently being negotiated with the GoN. It is expected that the instructor development process proposed by NSET will be endorsed by the GoN. Once it has been endorsed then trainers trained under this process will be officially certified trainer
 - The instructor development process that is proposed is not something that only NSET can deliver. Any PO can deliver the system through certified master instructors and using approved training curricula. NSET will start the process in order to have a base group of certified master instructors in place
- NSET are developing an On the Job training package to support the development of new masons? When do you expect that this will be approved? Will masons trained in this way be on the DUDBC certified masons roster?
 - Currently the CTEVT course for training new masons takes approximately 3 months. NSET are working n developing an On the Job (OTJ) training process for new masons which could be completed in 4-6 weeks through an intensive course
 - The focus now is on enhancing the skills of existing masons, but after November once this skill enhancement system is rolled out, NSET will compile the OTJ training system and submit to DUDBC for approval, and it is expected that this will be able to start around December
 - NSET are working with DUDBC and the skills testing board to ensure that post training skills testing and certification takes place after each training
- Is it expected that masons trained by NSET will receive GoN certificate and the household hiring the mason could verify that the mason is of the required level through this certification?
 - Yes, this is the expectation
 - Certificates are provided on completion of training, and the training course is a pass / fail course. Certificates are awarded only to those who pass the course and strict discipline on this is maintained. If a participant does not attend a session then the certificate is not awarded until they have participated in that session in another training course
 - Certification must be awarded only when skills have been developed
 - Request that organisations maintain discipline around award of certificates to ensure that the certification system remains credible
- Will the retrofitting training course be broken down into different typologies as per the masons training?
 - Yes, the retrofitting systems and training courses are being developed based on stone masonry, brick masonry, and RCC
- Can skilled masons be included in the ToT for masons training? What is the DUDBC view on the inclusion of skilled masons as trainers?

- There was one course that was missed in the presentation and this is the ToT for masons training for skilled masons. It is not the case that only engineers can train masons, masons can train masons if they are senior / experienced
- The ToT for senior masons is a 9 day training course which includes the theory parts of the training but focused on the skills transfer, which is most important for skilled masons when they are training other masons.
- DUDBC are currently in the process of reviewing the training materials
- Is it free for masons to participate in training? Do you provide lunch? Is there remuneration provided to the masons?
 - In Dolakha NSET provided food during the training course, and a transportation allowance of 300 NPRs / day to the participants. The masons are also provided with tools
 - There has to be some incentive for the masons to attend the training as when they come to the training they miss out on time spent working. The allowance of 300 NPRs / day in Dolakha, was negotiated and agreed with the DDRC, masons, municipal authorities
- It is very important for the Shelter Cluster to support a harmonised approach to the remuneration for masons during training courses. It can have a huge impact on the cost of programmes, and problems will arise if different approaches are used. Recommend the Shelter Cluster gathers information from each organisation and try to develop a common approach.
 - Yes, this is very important. It is challenging to determine the amount of allowance to provide to masons, the Shelter Cluster and GoN need to agree on an approach and provide guidance for all 14 districts as quickly as possible
 - Conflict could be created if there are wide variations in the approach to allowances provided during training
 - The DUDBC training procedures should be referred to during planning of training courses http://sheltercluster.org/sites/default/files/docs/eq_resistant_building_construction_training_procedure_2015_eng_unofficial_translation.pdf
- When NSET developed the training materials was the education level of the masons considered? Have NSET used the training materials before and how successful was it?
 - NSET have been delivering training courses in Nepal since 1999. Over the years there have been lots of revisions to the materials and the process and lots of new ideas have been incorporated. The training courses have been found to be very useful and the impact is clearly visible in many districts
 - NSET have been running the [Building Code Implementation Programme in Nepal \(BCIPN\)](#) for more than two years, and through this programme many training courses were delivered. Now starting to measure the impact of these training courses, how much changed in knowledge, skill, practice, how many buildings build compliant with code, etc.?
 - The difficult part of training is retention, NSET have trained more than 7000 masons prior to the 2015 earthquake, almost 50% still active, but the other 50% no longer work as masons, have immigrated, etc.
- NSET supported the reconstruction in Kashmir following the 2005 earthquake, what was the role of NSET in that response? Was it focused on shelter and structure design?
 - In Pakistan NSET supported technical assistance and training, similar to the process presented. The reconstruction programme in Nepal has drawn on the reconstruction in Pakistan and in a sense was tested there
- Some trainings are too theoretical, and communication between engineers and masons is often an issue with a gap in practical application arising when engineers train masons.
 - In the revised training materials, the theory component has been reduced theory and the practical aspects have been increased
 - The instructor development process is very important, teach engineers to communicate, teach them to deliver practical training, etc. Senior masons will also be trained as trainers

- It is a good idea to have a team of one mason and one engineer delivering training.
- How will masons trained before the earthquake be involved in the process? There is potential for conflict between newly trained masons and existing masons.
 - NSET found several years back that many small contractors were taking part in training courses, but they were not the people actually implementing the work so the training was not appropriate for them
 - NSET are now working on developing a training for small contractors, as they need to have a basic understanding about EQ construction as well as construction management
 - Testing of this type of training has taken place but this is a work in progress
- Have these type of trainings been made mandatory by the GoN?
 - This is under discussion with the GoN. The DUDBC training procedures state that training materials used must be either the GoN five days training course or other training courses developed by POs that have been approved by DUDBC
 - The intention is to make this mandatory for all EQ affected areas
- How many days of the training course focus on theory, and how many on practical work? Is the course in English or Nepali?
 - The training course is approximately 30% theory, approx. 70% practical
 - The course is entirely in Nepali but an English version is available. The course must be delivered in Nepali.
 - NSET intend to publish hard copies of the training materials in such a way that the training can be delivered in areas with no electricity where electronic training materials would not be useful
- Are there plans to include women in the training courses?
 - As NSET's programme is funded by USAID, NSET must meet USAID's criteria for inclusion of women in training courses. This is currently being worked out but by GoN policy there should be 33% women in the training course. NSET feel that practically if 15-20% of participants are women this would be very positive.
- Testing on completion of the training is important and each organisation should have the same criteria for the testing and award of certificate?
 - NSET has a basic system for testing but more work is required to make it uniform and consistent throughout the entire training system
 - A lot of work is required to ensure that the importance of testing is acknowledged by all

The National Shelter Cluster meeting will be held on the 14th October at 11am, in Bagaicha Restaurant, Jawalakhel.

The next meeting of the RRWG will be held on 28th October, at 11am, in Bagaicha Restaurant, Jawalakhel.