ASSESSING KNOWLEDGE IN RECONSTRUCTION

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The role of knowledge to enable safer self-recovery

Self-recovery + knowledge → adoption → safer self-recovery

85%
Understand **knowledge needs and application**

- **Level of application of techniques to build back safer**
- **Understanding and awareness of earthquake resistant construction techniques**
- **Barriers and drivers to build back safer**
- **Needed and provided knowledge**
- **Preferred and trusted knowledge sources**
A total of 1457 questionnaires, 26 focus groups, 1457 structural assessments and 70 key-stakeholder interviews were conducted in 26 wards in 8 VDC’s in Gorkha and 14 VDC’s in Okhaldhunga.
Findings: Key-stakeholders

- Most engineers and contractors want to improve their role as knowledge source by receiving more training.

- The ward leaders want to improve their role as knowledge source by both consulting the local engineers and higher government.

- Both engineers and ward leaders consider the District Office as a source of information for improvement of their role.

- The contractors and ward leaders consider the local engineers as an important source of information for improvement of their role.
Key-stakeholders improvement of their role

- **Engineers**
  - Creating: Putting information together in an innovative way
  - Evaluating: Making judgements based on a set of guidelines
  - Analyzing: Breaking the concept into parts and understand how each part is related to one another
  - Applying: Use the knowledge gained in new ways
  - Understanding: Making sense of the material you have learned
  - Remembering: Recalling relevant knowledge from long term memory

- **Constructors**

- **Households**
Key Findings: household surveys and FGDs

* Safer construction techniques are applied without knowledge intervention in Okhaldhunga
* Without knowledge intervention the construction speed is lower.
* Houses (re)constructed that are non-compliant are being abandoned and new constructions made to conform to standards

* Information is found when needed.
* Contractor is the main source of information.

* Awareness of construction risks (in terms of recurrence of major EQ) is high.
* General understanding or construction risks is lower in Okhaldhunga.
* Households have remembered the basics of the techniques of safer building but don’t often understand them.

* The main barrier to construction is financial resources.
* The government assistance is the main motivator to build back safer.
* Negative drivers can be effective (blacklists & deadlines).

* Community meetings are the preferred source of information.
* Construction professionals are the most trusted actor.
Recommendations

Advocate
* Advocate for retrofit and land tenure grant.
* Advocate that blacklist and deadlines do not exist.
* Advocate around changing regulations

Remind
* Keep on reminding people of the techniques

Train
* Train construction professionals to create new solutions with the techniques.
* Train to retrofit.

Learn
* Monitor the application of techniques over a longer period.
Potential for adoption during post-disaster recovery

Image: Eefje Hendriks

3 YEARS AFTER EARTHQUAKE
Discussion To train or not to train

Advantages of basic construction training for households:

- Increase reconstruction speed
- Increase awareness of whole community and increase demand for earthquake resistant structures in the future
- Involve women in reconstruction activities

Disadvantages of basic construction training for households:

- Lower reconstruction speed
- People are trained that are only limited involved in the construction processes
- Too many people have been trained, without a future market to work in.
Questions:

• How can the **motivation** to build earthquake resistant be generated and maintained in the future inside and outside the earthquake affected districts?

• What methods for **knowledge exchange** can be used to increase satisfaction and safety?

• What is needed to **improve comprehension and then the communication** by socio-technical assistance field staff?

• How do humanitarian and governmental agencies balance the people’s **right to correct information** being provided to them against negative motivating factors that are proving effective (such as deadlines and blacklists)?

• Should engineers in the field need to be sufficiently trained to be able to **inspect alternative designs** that are earthquake resistant *and* fit the homeowners needs?
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Do you ..... 

• want to see more details?
• have specific questions?
• have suggestions for further research?
• have suggestions for the publication?
• have interest to be a co-author?
• want students to contribute to your field work?