

## **MISSION REPORT PAUL METZENER; 04.06.2014**

Shelter expert/SHA

### **1. Activities during my mission**

- Field visit in Okhaldunga (report dated 26.05.2015)
- Shelter distributions
- Participant of working group reconstruction, Swiss NGO's
- Capacity building; people/communities want to know how to "build back better"

### **2. Shelter Distributions**

- We carried out transitional shelter and hygiene kits distributions for 1'774 households in 4 communities (VDC) in Southern Lalitpur; (corrugated iron sheets, tools, hygiene kits) together with Paul Christener and Pascal Panosetti;
- The shelter distributions were executed according to the previously worked out SHA shelter strategy;
- The distributions were carried out in line with Government standards, with written approval from the District Officer (CDO), in cooperation with the local authorities (VDC secretary) and with a local NGO (ECCA).
- Distributions terminated on the 3<sup>rd</sup> of June for the following reasons:
  - relief phase finished officially by the end of May 2015
  - most affected people in the remote areas completed their shelters by now
  - the Government has taken over with own distributions (shelter material and cash distribution)
  - additional shelter material in quality required by the shelter cluster is hardly available in Kathmandu before 5 to 6 weeks ; we even had to reduce the quality from 0.42 to 0.28 (spec from Gvmt. 0.38)
  - Start of monsoon season, expected end of first week in June, will worsen the accessibility to the remote areas we were working in
- The Swiss contribution was recognized as of high quality and to the right time
- The distributions went well, the needs were met, the beneficiaries were happy; this Swiss action can be considered successful

### **3. Observations/findings beside the distributions**

During the various distributions in the rural areas of Okhaldunga and Lalitpur we had the opportunity to visit and revisit various households. During these visits we made our observations, they may help to understand the complex situation of the affected population:

#### **3.1. Immediate Needs**

- A stable transitional shelter for the monsoon is the most urgent need in all the rural areas at this point

- also an immediate need is to receive security about the state of the damaged buildings; the assessment is a very difficult task
- on longer term, the population wants to reconstruct, they are aware, that they will have to do it themselves with the help of skilled local workers; urgently needed is some basic knowhow on earthquake resilient construction

**CONCLUSION:**

*The SHA transitional shelter distributions met the needs perfectly (items and time), although only for a small part of the affected population*

**3.2. Coping mechanism's**

The affected population in mountainous/rural areas :

- is afraid of additional earthquakes, almost 100% built some emergency shelter (tarpaulins, tents, bamboo/wood/thatch-shelters) and started to live outside their houses
- started immediately to remove the rubble and to separate usable materials (stones, timber, iron sheets, etc.)
- feels insecure about demolishing or repairing the partly damaged houses
- they are farmers, they have their priority in the crops at the moment
- they are aware of the upcoming monsoon
- most of them moved from emergency- into transitional shelter already
- some invested in CGI's with their own savings
- they cope well with the situation and they know exactly what to do
- they are interested in how to avoid mistakes for the reconstruction
- they want to reconstruct themselves or with local builders; they want to do as much as they can themselves
- has not received support from Government yet
- we never heard any complaint !

**CONCLUSION:**

*Nepali people in the affected areas are resilient. They are strong and they will solve their problems. Most households have built a transitional shelter for the monsoon.*

**3.3. Challenges for the people**

- Fear from further earthquakes
- Upcoming monsoon
- Lack of money; people are realistic, if there is no external money it will take several years for the reconstruction
- Lack of knowhow in earthquake resilient construction; people are keen to learn on what to do and what not to do
- High losses of livestock - the only saving of farmers

*CONCLUSION:*

*The affected population knows about the challenges and how to cope with it.*

**3.4. Damage pictures**

The damage to the houses is almost the same in all areas. We learnt from the damage pictures which techniques keep a house together and which construction mistakes cause severe damage during an earth quake. We also learnt, that traditional construction with stone and mud does not automatically mean damage ! The damages are very similar:

- Weak corners, vertical reinforcement missing
- no horizontal reinforcement
- external wall built in two separated layers
- unstable gablewalls.

After our explanation the people understand the mistakes in the construction very well.

My observations in this matter match exactly with the ones of Dr.Andreas Galmarini, SHA Civil Engineer.

*CONCLUSION:*

*Most damages could have been avoided with simple reinforcement techniques.*

**3.5. Capacities for reconstruction**

Traditional construction practices are well known; people are ready to demolish and reconstruct their houses; in most VDC's skilled labor is available; mostly a combination of macon and carpenter; these skilled people understand the necessary improvements/adaptions without problems.

*CONCLUSION:*

*With simple key messages people will learn how to "build back better". see Annex 2*

**3.6. Traditional construction techniques**

The houses in the mountainous/rural areas are logically built with local natural materials (stone, mud, wood; roofing depends also on locally available materials such as thatching, shingles, stone).

It is interesting to compare the damage pictures with the techniques used. Strong corners, bonded walls, wooden horizontal reinforcements, fixed gablewalls etc. had an immediate impact on the occurred damage.

There are good examples for safe traditional buildings. See annex.....

*CONCLUSION:*

*Due to the vast, mountainous and difficultly accessible area we suggest, that reconstruction is done by the local people with local materials and labor.*

### 3.7. KEY MESSAGES RECONSTRUCTION see also presentation dated 4<sup>th</sup> of June 2015

The following key messages apply to informal reconstruction traditional style :

- Vertical reinforcement
- Horizontal reinforcement
- Ring-beam's
- Gable-wall

The techniques have to be adapted slightly according the locally available materials.

The messages have the goal to build back better, but they will not grant 100% safety ! It is simply too complicated to explain proper foundation, proper roof-construction, etc. at this point.

These messages have been created within SHA with Andreas Galmarini et Rolf Grossenbacher. And they are the main goal of the working group Swiss NGO. List of participants see

### 3.8. Gender aspects

Women are especially interested in how to improve the safety of a house. They involve themselves immediately when it comes to discussion about the reconstruction of their house. And they do understand the key messages, even they do not know a lot about construction.

*Conclusion:*

*Women can and should be included in the capacity building process for the reconstruction.*

## 4. Logistics/supply chain

I would like to point out 2 small aspects that could improve our work:

- Logistics/purchase of hardshelters (cgi's)  
as time evolves the supply capacities shrink and the demand increases; this creates problems in the process, the prices rise and the quality "sinks"; distributions become difficult and get postponed  
>>> a strategic decision on the scale of the relief action at the beginning and the immediate bulk order would help; enough items can be ordered, stored and distributed; "maybe" the process will be easier to handle. However it shows the supplier aren't reliable and do not always fulfil contractual agreements ...☺
- Distributions could be carried out per ward, not per VDC; this would make the process easier to handle, this would be in contradiction with the guidelines from the government, asking the Organizations to handover the relief good to the VDC's  
Various:
- In a hot season like here in Nepal it would help a lot if our food supply could be stocked with Isostar powder or similar; instead of condensed milk... ☺

## 5. Coordination

During my time in Kathmandu I joined 2 UN shelter cluster meetings. The outcome there was not very fruitful yet. Our distribution data was filled into the database by Pascal Panosetti.

A sub cluster reconstruction; technical working group, shall be installed soon. Sign up via [www.sheltercluster.org](http://www.sheltercluster.org)

The participation in a working group organized by Helvetas with various Swiss NGO's showed more and good results. The common sense is to produce a flyer stating some key-messages. Draft of flyer and address list see attachment ....

I suggest that our successors participate in this meeting; next step is the further development of the flyers. The new draft should be ready by Wednesday 10.06.2015. The next meeting is scheduled Friday 12.06.2015, 10.00 hours at Helvetas.

## 6. The future ...

As stated above I strongly believe that the affected population, our beneficiaries, cope well with the difficult circumstances. The relief phase is now over. For the future, after the monsoon, they will need assistance in the following fields:

- Capacity building for earthquake resilient reconstruction techniques
- Financial support for the reconstruction

## 7. Personal Comment

The decision to deliver transitional shelters met the most urgent need of the affected population in the remote areas, the help arrived at the right time before the monsoon.



*Thanks to all my colleagues at the SHA base in Kathmandu and many thanks to the wonderful Nepali people out there. NAMASTE*

Annex 1, Photos to report



*Beneficiaries construct transitional shelters...*



*replacing emergency shelter*



*Distributions are well organized and run smoothly*



*Distributions are well organized and run smoothly*



*People are getting ready for the monsoon*



*corrugated iron sheets meet the need*



*Demolish or not, the big question !...*



*Loss of house and livestock !...*

### 3.4 Damage pictures



*Total Collapse/ partial collapse*





*Partial Collapse*



Cracked buildings are a big problem for the affected people. Demolish or repair ?



### 3.5 Capacities for reconstruction



In most VDC's and even wards skilled macons/carpenters familiar with traditional construction techniques are available; they need to be trained for earthquake resilient construction

### 3.6 Traditional construction techniques



*We can learn from traditional buildings without damage. We should build on that experience !*

### 3.6 KEY MESSAGES RECONSTRUCTION



*Build strong corners !*



*External wall; Inner and outer layer need to be bonded >>> Throughstone !*



*Ringbeam, big effect in holding walls together ! Several ringbeams for 2 storey building.*



*Gablewalls need to be bonded with roof construction ! Just a plank inside and outside of gablewall.*

### 3.7 Gender aspects



*Women can and should be included in the capacity building process for the reconstruction. They are interested, they listen and they care for the safety of their families.*

NAMASTE

