

## Indonesia Shelter Cluster – Sumatra Earthquake 2009

### JOINT MONITORING REPORT December 2009

#### 1 Introduction

The Sumatra Earthquake 2009 Shelter Cluster undertook a joint monitoring exercise of the emergency shelter response. Its main purpose was to understand better the effectiveness of non-food item (NFI) and shelter tool distributions. As the first such exercise, organised by the Shelter Cluster Coordination Team in collaboration with a group of operational agencies participating in the Cluster, it was also an experiment in joint monitoring, which should be used and improved by future Shelter Clusters.



#### *Thank you*

*Several agencies participated in this Shelter Cluster joint monitoring exercise, providing input on monitoring forms, staff and logistics. Thank you, in particular, to Care, Catholic Relief Services (CRS), Islamic Relief, Kabisat, Oxfam, P3SD, Palang Merah Indonesia (PMI), Save the Children and Walhi, whose field staff gave up many valuable hours talking to people affected by the earthquake.*

Damaged houses and early self-recovery in Ajuang, Campago, V Koto KP Dalam, Padang Pariaman, 23/10/09

#### 2 Method

- 2.1 A five-page monitoring form was compiled, with input from various Shelter Cluster agencies. This was translated into Bahasa and field tested. *Annex I: Monitoring form (Bahasa and English)*
- 2.2 A training workshop for monitors took place on 11 November, to introduce the monitoring form, establish teams and agree a timetable.
- 2.3 From mid-November to mid-December, six two-person teams conducted weekly monitoring visits<sup>1</sup>.
- 2.4 These teams spent up to a day in each village, during which they conducted interviews with members of five or more households. Each monitor was given an identity card and a short letter of introduction (to present to village authorities).
- 2.5 For each visit, teams had to choose a village (or, in urban areas, an area comprising around 200 households) within a pre-selected nagari<sup>2</sup>. In order to reduce bias, no team went to a village where its agency had an operational presence.
- 2.6 Nagaris were selected largely at random. To ensure broad coverage – across affected districts; urban and rural contexts; and in relation to where agencies had conducted distributions – a limited number of nagaris were selected deliberately. *Annex II: Sampling methodology explanation*

<sup>1</sup> Each team should have been to four villages, although some made it only to one and others to seven.

<sup>2</sup> A nagari is the lowest administrative level. In rural areas, it comprises up to 10 villages. It includes, on average, over 1,000 households.

### 3 Results

- 3.1 By mid-December, monitoring teams had conducted interviews in 103 households, in 21 villages, in the six worst affected districts. *Annex III: Monitoring locations table*
- 3.2 Of those interviewed, 84% classified themselves as house owners; 59% were women; and the average age was 49 years.
- 3.3 The majority of respondents were those whose houses had been severely damaged, with only 10% living in slightly or undamaged houses.
- 3.4 Average household size in this sample was between five and six people, whereas official population statistics show smaller average household sizes.
- 3.5 Whilst these 103 households may include a cross-section of the affected population, they represent only a very small sample of people affected by the 30 September earthquake.

### 4 General key findings

- 4.1 The majority – 79% – of respondents in this sample, whose houses are severely or moderately damaged, are still living in these houses or in below standard transitional shelter.
- 4.2 Only three households in this sample were occupied by host and displaced families, and these were in rural and urban areas.
- 4.3 75% of those interviewed have not begun to rebuild their permanent houses, due mainly to lack of building materials and, to a lesser extent, lack of labour. The reported level of self-recovery was higher in urban areas, where only 65% of respondents said they had not yet started to rebuild.

4.4 Most households had received tarpaulin and blankets from NGOs or PMI. Most other non-food items had been procured by households, and very few had been distributed by the government.

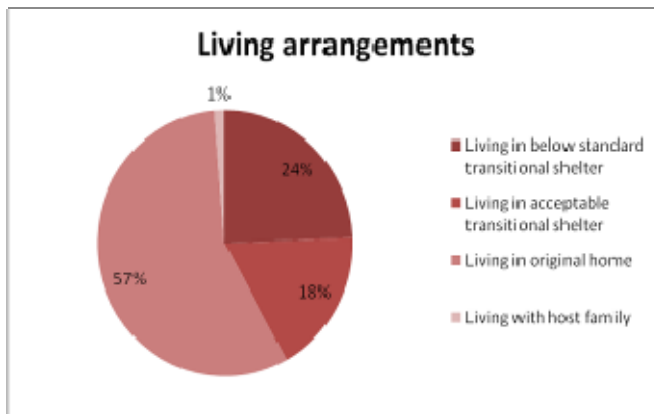
4.5 There appear to be significant gaps between shelter tools needed and owned. In most cases, less than half of those interviewed had received, bought or borrowed any of the tools listed on the monitoring form<sup>3</sup>.



### 5 Household survey

- 5.1 Overall, there was only a slight increase in average numbers of people living in each house before and after the earthquake. The most significant increases, although still slight, were in urban areas. This result may reflect the fact that the houses of 90% of those interviewed are severely or moderately damaged, and therefore unlikely to be the same houses to which displaced families had moved.

<sup>3</sup> Distributions were still ongoing during and after the period of this monitoring exercise (i.e. into January 2010).



5.2 Over half of the population in those houses visited were between 18 and 65 years old. 42% were aged under 18 years, and only 7% over 65 years.

5.3 Of those interviewed, 57% were still living in their original home, 24% in a below standard transitional shelter and 1% with a host family. The remaining 18% had built and were living in an acceptable transitional shelter<sup>4</sup>. *Annex IV: Sumatra Earthquake 2009 Transitional Shelter Parameters*

## 6 Self-recovery

6.1 25% of people interviewed said that they were now rebuilding their own permanent houses. (As above, this percentage was higher in urban areas.) Overall, one third of households have adequate labour to do so, but only 4% have sufficient building materials.

6.2 The overwhelming response to the question ‘What are your current needs?’ was building materials and, in some cases, cash to buy building materials.

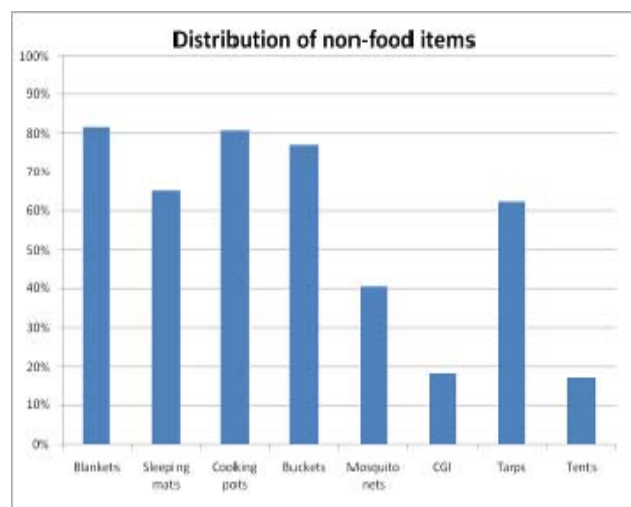
## 7 Non-food items

7.1 Monitoring teams asked respondents what non-food items they had received or procured, whether they had an adequate amount of each item, and whether these items were in use. The items discussed included blankets, sleeping mats, mosquito nets, cooking pots, buckets, corrugated iron sheets (CGI), tarpaulin / plastic sheets and tents.

7.2 As the adjacent table shows, the three most commonly found items were blankets, cooking pots and buckets. Over half of households had received blankets from NGOs or PMI. In contrast, the vast majority of respondents had bought or otherwise procured their own cooking pots and buckets. Most respondents had also bought their own sleeping mats.

7.3 Only 40% of households had mosquito nets, yet 93% of those were in use, which implies that many more families would use nets if they had them.

7.4 The non-food item most commonly distributed by NGOs and PMI was tarpaulin plastic sheets. Of the 62% households with tarpaulin, very few had bought their own. When asked whether they had a sufficient quantity, however, 24% replied that they did not.



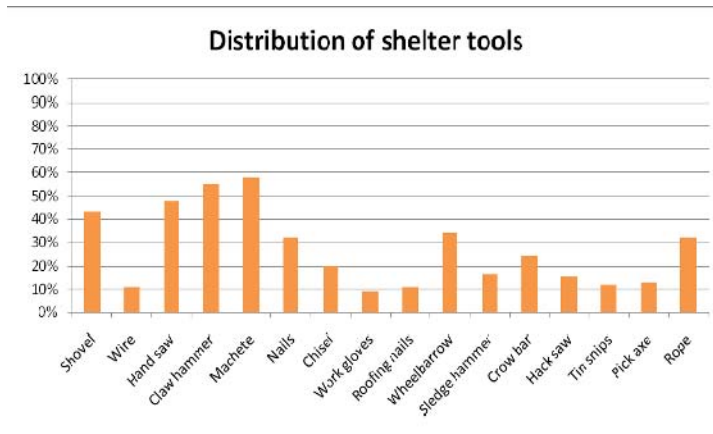
7.5 Very few respondents reported receiving any non-food items from the government.

## 8 Shelter tools

8.1 Monitoring teams asked respondents what shelter tools they had received or procured and what they needed. The items discussed included shovels, wire, saws, hammers, machetes, nails, chisels, gloves, wheelbarrows, crow bars, tin snips, pick axes and rope.

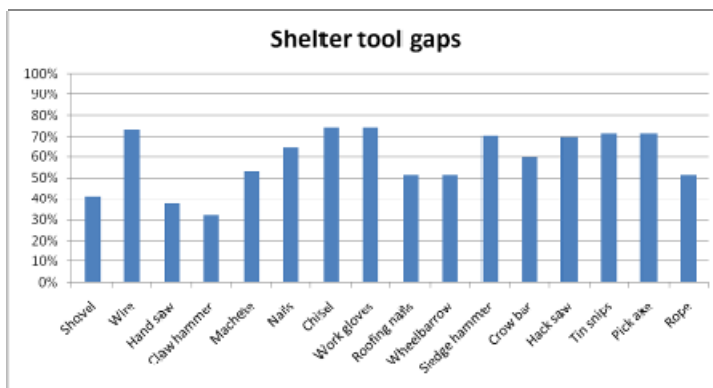
<sup>4</sup> The training workshop for monitoring teams included a session on how to identify acceptable transitional shelter. It was agreed that such a shelter should be: 18m<sup>2</sup>; over 2m high; able to last 6-24 months; rain-proof; ventilated; and sufficiently private.

8.2 As the adjacent table shows, the four most commonly found shelter tools were machetes, claw hammers, hand saws and shovels. Over 40% of respondents owned or were able to borrow these tools. The least commonly found tools were work gloves, wire, roofing nails, tin snips and pick axes.



8.3 Respondents were asked which shelter tools they did not have and which they did not need. In very few cases did they reply that they did not need that which they did not have. The table on the next page shows which tools were missing and reported needed in those households visited.

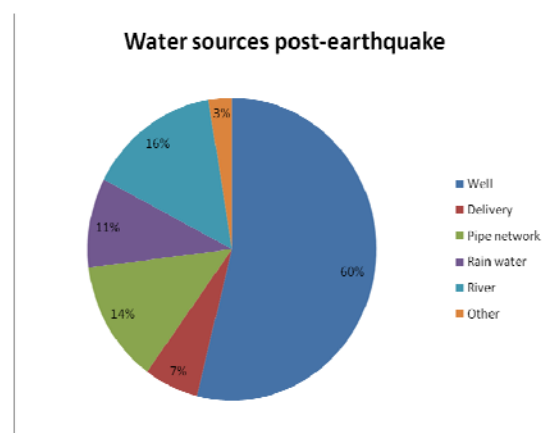
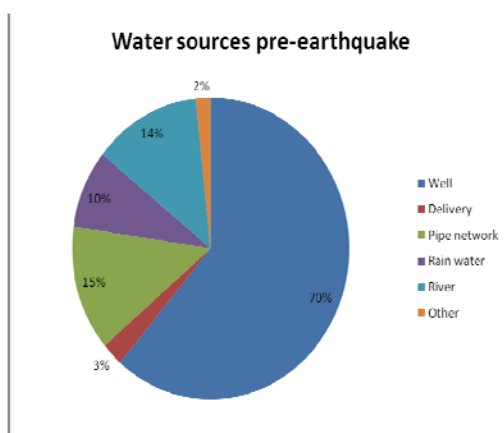
8.4 Very few respondents reported receiving any shelter tools from the government. The majority of tools had been bought or were already owned.



## 9 Water, sanitation and hygiene

9.1 Earthquake damage has meant a small decrease in the use of latrines. 51% of those people interviewed had used a latrine before the earthquake, as compared with 44% afterwards.

9.2 In this sample, there were no dramatic changes in water sources pre- and post earthquake. However, as shown in the pie charts below, respondents did report more use of water delivery and collection from rainwater and rivers, and slightly less use of wells and pipe networks.



## 10 Lessons and recommendations

This joint monitoring exercise of the emergency shelter response to the 2009 Sumatra earthquake was intended to improve the understanding of the effectiveness of NFI and shelter tool distributions. As the first of its kind, it was also an experiment in joint monitoring. As such, the table on the next page captures lessons and recommendations for future Shelter Clusters on how better to conduct such monitoring.

	LESSONS	RECOMMENDATIONS
<b>COST</b>	The Shelter Cluster coordination team had no budget for this joint monitoring exercise. Only minimal logistics costs were incurred by those who participated.	More agencies should be encouraged to participate in the joint monitoring exercise, on the basis that minimal cost is incurred.
<b>TIME (&amp; HUMAN RESOURCES)</b>	The monitoring was possible because nine agencies made available their local staff. Each two-person monitoring team gave up (up to 4) weekend days to travel to and interview people, and was also required to attend two meetings (including the training session). Some agencies found it far easier to provide this additional human resource than others. And some monitoring teams did not carry out that which they had agreed to do.	It is a lot to ask agencies to provide additional human resource when in the midst of an emergency response operation. The onus is on the Shelter Cluster coordination team to provide a clear timetable at the start of the exercise and to agree this with managers. Managers should then ensure that their staff are following the agreed timetable (or communicating delays).
<b>TIMING</b>	The monitoring started six weeks after the earthquake, when most emergency distributions had taken place or were underway. It was then spread out over the following month and not completed (or presented) before the Shelter Cluster coordination team had left.	The monitoring started at an appropriate time. However, it would be preferable to complete it faster to allow time to present the results to the Shelter Cluster. An exercise conducted over a shorter, focused period of time, may also be easier to organise and to commit to.
<b>SAMPLING</b>	As far as possible, monitoring locations were selected at random. However, to ensure broad coverage, some were selected deliberately. In the end, only 103 households were monitored. This was a huge effort by monitoring teams, but is not a big enough sample to assume that results can be applied across the affected population.	A completely random selection process is desirable but, given the small sample, is not always possible. A bigger sample – which would require more time commitment / human resources – would have made random sampling appropriate and would also have produced more reliable results.
<b>MONITORING FORM &amp; TRAINING</b>	The monitoring form was put together with broad input from agencies. Whilst it provided some useful results, it was too long and too complicated. Not all monitoring teams completed the forms in the same way, and many were handed in with significant gaps. For example, the data filled in on the front page, on population statistics, levels of damage and self-recovery, was largely unusable. The last section on the form, on WASH, used the simplest questions and yielded the clearest results.	The monitoring form should be shorter and simpler. It should include, for the most part, questions with only yes/no answers. And the format of these questions should be the same throughout. The form should also have been more thoroughly field tested before monitoring got underway. (Once monitoring is underway and training complete, it is too late to change the form or to change how well it is understood by monitors.)
<b>SELF-RECOVERY</b>	A critical question in the first two months after the earthquake was around self-recovery. What proportion of people is able to recover adequate shelter without external assistance (in rural and urban areas)? This monitoring exercise asked some questions on whether respondents were rebuilding their permanent houses, but missed the opportunity to get a clearer picture on self-recovery (including transitional shelter).	The monitoring form should have included more precise questions on self-recovery, in relation to transitional and permanent shelter. This may have given a clearer picture in terms of needs and gaps and in terms of the type of assistance (i.e. building materials, cash, labour, training) required.