

## A.24 Peru – 2012 – Flooding and Land Slides

**Case Study:** **Keywords:** Unplanned / Unmanaged camps, Household NFIs, Tools, Emergency shelter, Training.

**Country:**

Peru

**Project location:**

Central Peru and Lima

**Disaster:**

Floods and Landslides

**Disaster date:**

November 2011 to May 2012

**Number of people displaced:**

November 2011 to May 2012

278,800 people made homeless

**Project target population:**

409 families

**Project outputs:**

409 tents and non food item kits

**Occupancy rate on handover:**

100 per cent

**Shelter size:**

18.5m<sup>2</sup>

**Materials cost per shelter:**

US\$ 280: Tent

US\$ 455: Non food item kit

Excluding transport and personnel



**Project timeline**

6 weeks –	– Project ends.
1 month –	– First family shelter kits are distributed to families.
2 weeks –	– Family shelter kits arrived in Lima
4 days –	– 224 family shelter kits requested.
1 day –	– State of emergency declared
17 <sup>th</sup> March 2012 –	– Assessment team arrives
November 2011 –	– Unusually heavy rains start

**Project description**

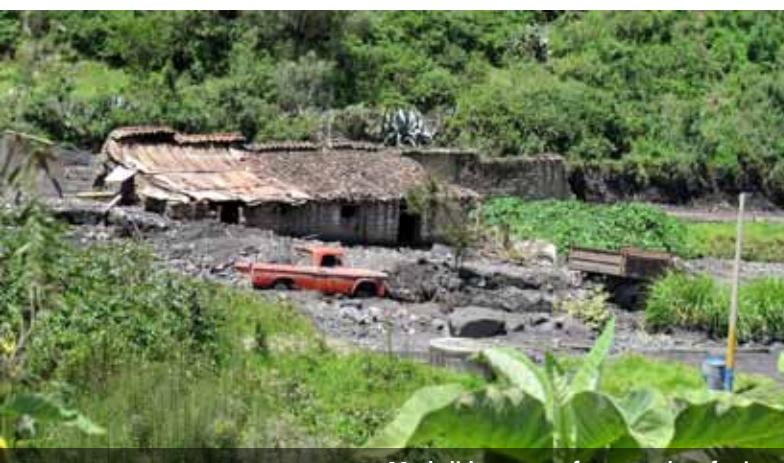
Tents and non-food items were provided to families who had lost their homes as a result of landslides. The tents and family kits were shipped into the country from international pre-positioning locations in coordination with the local disaster management authorities. The entire distribution project lasted 6 weeks.

**Strengths and weaknesses**

- ✓ Regionally prepositioned stock overcame the time-restraints of procurement lead-times.
- ✓ Tents and blankets provided a rapid shelter solution that provided protection from the elements. Fuller construction would have been difficult as the construction season had passed.
- ✓ The emergency shelter was distributed with various non food items, including a tool kit.
- ✓ Families were allocated safer land by the authorities.
- ✓ Given the challenges of access, the portability of single-family kits was useful.
- ✗ Relatively high per household cost for an emergency intervention compared to other relief operations in response to the floods.
- ✗ The organisation provided tents and non food items as emergency shelter, but did not actively engage in water sanitation and hygiene promotion or other needs. There were few other actors involved in the sites leaving a newly formed but small settlements

with limited services.

- ✗ Time was lost in resolving national and regional import regimes.
- ✗ Materials were imported before clarifying customs and handling fees. This led to delays and protracted negotiations.
- ✗ The small size of the project team restricted the ability of staff to actively participate with beneficiaries and monitor the response.
- Although tents and non food item distribution is not the sole solution in emergency response, and may not directly support recovery programming, there are clear times when they meet a humanitarian need.
- The organisation relies on small teams of expat volunteers to oversee distribution so as to keep running costs low. However, this combined with the wide geographical area of the distribution left the team little time to train people in how to erect the tent or to use the water purification equipment.



**Mud slides came after months of rain.  
It was cold in the mountainous areas.**

Photo: John Cordell



**The project provided imported tents and non-food items,  
creating temporary settlements of up to 60 families.**

Photo: ShelterBox

## Before the floods / landslides

Peru is prone to natural disasters, including droughts, fires, floods, landslides and avalanches, extreme temperatures and earthquakes.

Since 2008, Peru's economy has grown at around 9 per cent annually, mainly as a result of its natural resources. However, there are huge economic disparities throughout the country, with more than half of the population living below the poverty line.

The government disaster management agency, INDECI, consists of a federal body and departmental bodies that have different amounts of resources at their disposal, dependent on the wealth of their department.

Construction practices vary across Peru. In the central highlands, the majority of houses are built from mud blocks with corrugated iron roofs. The construction season is dependent on the amount of water available which is very limited during the dry season.

## After the floods / landslides

La Niña, a macro weather phenomenon, combined with local systems, caused the Amazon River to reach a historically high level. This led to a State of Emergency to be declared on 18th March in 18 of the 24 departments in Peru. This state of emergency was later extended for an additional 60 days.

The floods most severely affected people living in the region of Loreto, which was also one of the poorest areas in the country. As a result, coordination of humanitarian activities mainly focused on this region.

The landslides affected homes in the south eastern part of Peru. In the case of mud slides, both the damage and the needs were very localised.

The circumstances of the people displaced by the landslides varied. Some stayed with families, others received a (temporary) stipend from the government to live in guest houses. Others were living in tents of variable quality that were on loan from the government disaster management agency, or lived under plastic sheeting that was open at both ends. The temperatures ranged from 3 to 25 degrees centigrade depending upon location.

Following the landslides, many people slept outside or in simple makeshift shelters.

## Selection of beneficiaries

Working with the local INDECI office, the assessment team decided to provide some support to 173 households in Loreto district and 409 households affected by landslides in the central Peruvian highlands. The majority of this case study will refer to the intervention in the highlands.

The main selection of locations and beneficiaries was through the local INDECI office with some in-

dependent validation. Initially, selection criteria included particular vulnerabilities (specifically the very young and old, pregnant women and people with physical and mental disability). Healthcare professionals were consulted on what were likely to be the most vulnerable groups in specific geographic areas of need, taking in account climate and altitude.

However, as more accurate needs assessments were compiled, it became clear that the organisation would not be able to provide emergency materials for the entire displaced population in the Andean states. At this stage the initial selection criteria were dropped. Distribution was then coordinated with the elected representatives of camps for displaced people. Generally, these representatives were connected to the project staff by the local Civil Defence. Occasionally the project staff were approached directly.

Additionally, locally elected relief representatives produced detailed lists of people requiring support.

## Site selection

Approximately ten percent of the affected households were staying with host families. For these groups, tents had been erected on individual plots of land adjacent to host families' houses.

For the majority of households, the land that their houses were on had been destroyed by the landslides, and new sites had to be iden-



Families made modifications and upgrades to their shelters. Left: in the highlands, Right: in the lowlands.

Photo: ShelterBox

tified. These new sites were identified and permanently allocated by the authorities in agreement with the hosting villages. These sites varied in size, the largest site of one hectare initially housed 76 households.

### Implementation

The organisation did not have any staff in Peru before the disaster. However, a team had travelled to the country to perform a needs assessment in the country in March 2011 following reports of flooding. As a result the team was able to draw upon pre-existing contacts, such as INDECI, who became the key project partner.

The organisation imported kits containing emergency tents and household non-food items. It delivered these to families who had been removed from their homes by landslides.

The organisation deployed three consecutive expatriate volunteer teams over the course of six weeks, starting the day after the mud slides. The first team of two people conducted a needs assessment. This was followed by two four person teams who oversaw the distributions and trainings on the erection and maintenance of tents. Three months after the end of the project, a monitoring and evaluation team travelled to the affected region.

In the newly established sites, the disaster management authority provided some clean water, containers and some very basic latrines.

There were very few other organisations operating in the area, and no organisations took on sanitation or hygiene promotion activities at the sites.

### Training

As the disaster affected people had never lived in tents before the teams conducted some basic trainings in erecting and maintaining tents. The main focus was on tightening guy ropes sufficiently so that the tents did not blow about, but not tightening them too much so that the tents ripped. There was also a short training on locating and orientating tents and the distance between them.

As the organisation also distributed some water purification equipment and conducted a training on its use. However, this may not have been fully adequate.

### Logistics and supply

All items had been transported by sea to Panama where they were pre-positioned. From Panama they were flown to Lima. Within Peru the boxes were transported by air, truck and/or boat. 69 out of the boxes that were sent to the Loreto region were flown as gifts-in-kind. Transport for staff was paid for through gifts-in-kind.

INDECI offices at the departmental level acted as the consignee for bringing tents and shelter kits into the country. This created significant delays as negotiation was required between federal and local offices to agree who would pay

for the import and handling fees. In the end, the international organisation covered the handling fees to prevent further delays, and the disaster management agency covered all other costs.

The shelter kits were brought to their final locations in 4 wheel drive vehicles, or carried by hand. The strong packaging made this task much easier.

### Adaptation of tents

Three months after the distribution, an evaluation found that the majority of families were still living in the tents that had been provided. There were no projects in process to build more durable shelter or housing.

Many families had built a kitchen and a shaded area as an extension out of timber and tarpaulins. This was observed both in the highlands and in the lowland locations.

### Materials list – if relevant

Materials	Quantity
Box	1
Relief tent	1
Blankets	5
Ground sheets	2
Landtrade mosquito nets	2
Kitchen set	1
Water carriers	2
Family water filtration unit	1
Toolbag with hammer saw, pliers and rope	1