

## A.20 Pakistan – 2010 – Floods

**Case Study:** **Keywords:** Advocacy, Training, Guidelines, Coordination.

### Country:

Pakistan

### Disaster:

Floods

### Disaster date:

July to September 2010

### No. of houses damaged:

1.8 million houses damaged or destroyed

### No. of people affected:

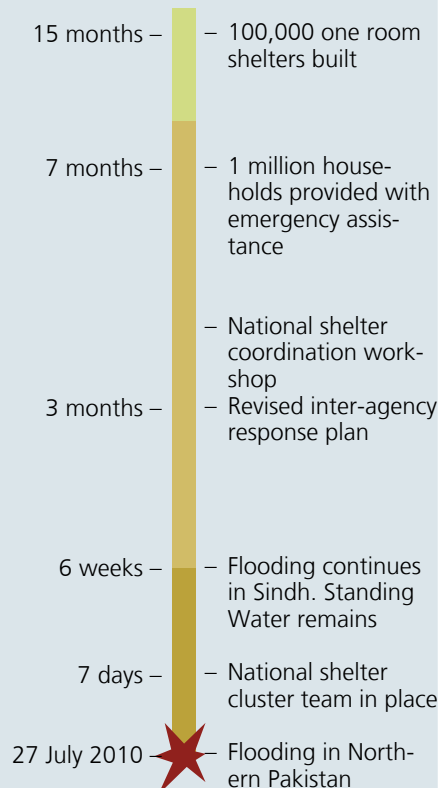
More than 20 million people

### Project outputs:

Coordination established nationally and in 7 provinces



### Project timeline



### Project description

The organisation established national coordination across 7 provinces in response to large scale floods, with the purpose of addressing gaps and increasing the effectiveness of the humanitarian response. The organisation established a national coordination team that managed a wide range of issues through a system of Strategic Advisory Groups (SAGs) and Technical Working Groups (TWIGs). It also appointed different organisations as lead coordinators in the different provinces. District level coordination proved difficult and slow to establish, but lessons were learnt for the following 2011–2012 floods.

### Strengths and weaknesses

- ✓ The lead coordinating agency shared responsibility for coordination with different organisations as focal points for different provinces.
- ✓ The lead organisation was able to establish a reasonably clear division of responsibilities between the coordination team members and its own operations.
- ✓ The coordination process resulted in detailed gap identification in the response in the south of Pakistan at village level.
- ✗ Coordination was slow to be established at district level in the 2010 floods. Lessons were learnt for the 2011 and 2012 floods.
- ✗ There were challenges in reaching consensus on line management responsibilities due to multiple lead organisations across provinces.
- Although local organisations, foundations, philanthropists, and private sector actors have an increasingly important role in preparedness and

response within Pakistan, they were largely outside of the cluster system.

- Effective coordination requires a physical presence at national, provincial and district levels. Although effective coordination must remain focused on output, certain aspects of coordination are process-focused. Jointly creating a sectoral strategy and shaping advocacy positions are two such examples.
- There are increasing obligations relating to the contingency planning process, as more efforts are put into preparedness and disaster risk reduction. Using clusters to conduct sector planning during 'peace time' may be good value for money.
- At national level, coordination focuses on ensuring a harmonised and adequate response, policy and resource mobilisation. At provincial or district level the focus is on issues of assistance delivery and partnership building. The practical value of coordination increased the closer it was conducted to the affected population.



The coordination team tracked commodities, both in pipeline and distributed as a core service. This allowed gaps to be identified and resources sought to fill unmet needs. Photo: Joseph Ashmore

## Coordination and Clusters

Following a review of international responses to humanitarian emergencies in 2005, the cluster approach was proposed as a way of addressing gaps and ensuring responses were more effective.

By clarifying organisations' roles and responsibilities, the cluster approach helps ensure predictability and accountability, and creates a more structured, accountable and professional system.

See [www.sheltercluster.org](http://www.sheltercluster.org)

## Shelter Cluster in Pakistan

The Shelter Cluster in Pakistan coordinates shelter activities in response to disasters and specific conflicts. The Cluster comprises the government, lead organisations and all of the organisations engaged in shelter activities who wish to coordinate.

Before the 2010 floods, the Shelter Cluster had been activated in Pakistan after the 2005 South Asian earthquake, the 2007 cyclone, the 2008 earthquake in Baluchistan, and the complex emergency peaking in the 2009 IDP crisis.

Coordination challenges within Pakistan include multiple languages and the changing institutional roles and relationships within the humanitarian community and the government. Different types of disasters and conflicts all require different responses and different management of the responses.

The governance structures of Pakistan relating to disaster assistance have changed significantly since 2005. Two of the most important changes have been the creation of the National Disaster

Management Authority in 2006 and the implementation of the Decentralisation Act of 2010, which devolved significant, although not always clearly defined, authority to the provinces.

## 2010 floods

Floods in 2010 affected 20 million people and destroyed 1.7 million houses throughout the country (see *A.22 shelter Projects 2010*). They struck all 7 provinces of Pakistan with 29 districts being classed as severely affected.

Distances were large, and with some locations taking days to travel to. The scale was such that no one organisation could effectively coordinate on its own, and it was necessary to set up coordination mechanisms at both the national and provincial level.

## National Coordination Team

The cluster lead organisation agreed to represent the Shelter Cluster at the national level. It established a team of nine people that worked relatively separate from the operations of the hosting organisation. This independence allowed the team members to represent the "cluster" and not their host organisation.

The team consisted of a cluster coordinator, a technical advisor, an information manager (with two assistants), a Geographical Information Systems team (two people) and an administrator. As the team members needed to visit field and hub locations regularly, it relied heavily on the logistics support of the host organisation and other cluster members.

The team held regular meetings in Islamabad. Initially these were

twice per week, but decreased in frequency as the emergency progressed into the recovery phase.

## SAG and TWIGs

Multiple groups had to be established to coordinate the response, and most effectively use the time of the different parties involved, including donors, government officials, NGO and UN partners, and others.

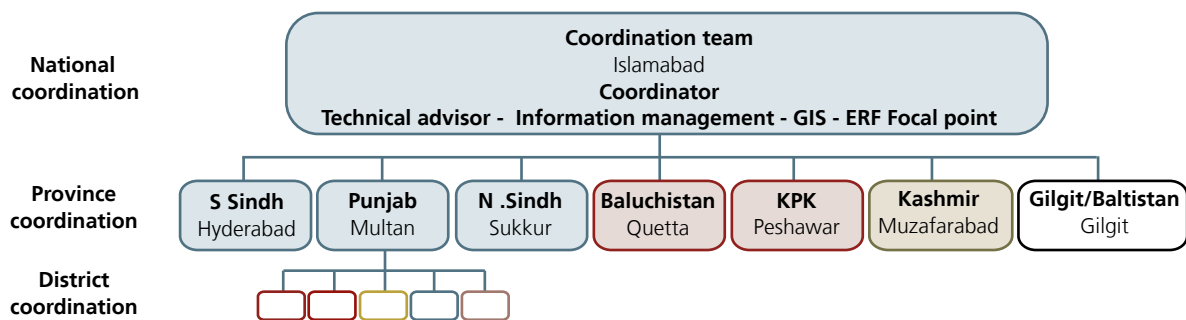
A Strategic Advisory Group (SAG) was formed to discuss and propose rapid agreement on national strategic issues such as advocacy positions that the cluster should take and which projects should be promoted for funding. To ensure accountability, SAG members were elected by all cluster members with agreed numbers representing different types of organisations and donors. The SAG's recommendations were submitted to plenary meetings and disseminated by email for final agreement.

Technical Working Groups (TWIGs) were formed to deal with specific technical issues, such as the composition of a winterisation kit or common specifications.

## Provincial coordination teams

The lead organisation agreed to coordinate nationally and in Punjab and Sindh provinces. Three other organisations agreed to coordinate the other four provinces.

Sharing coordination responsibilities with other organisations that had experience and competencies in the shelter sector proved to be an effective way to ensure that coordination was rapidly extended throughout all of the flood-affected areas.



Functional organisation chart for the coordination team in November 2010. Each colour represents a different organisation. District level coordination was just starting and district focal points were being identified in several of the provinces. Each role might require several staff, either full time or part time. For example, at national level, the information management role was fulfilled by an information manager and two assistants.

A disadvantage of having different organisations taking the lead at provincial level was that every organisation had a different interpretation of the role of a coordinating agency. This led to some sticking points between national and provincial coordination.

Some of these organisations were new to the role of cluster coordination, so the national team had to spend some time clarifying what the cluster lead role entailed.

Common reporting formats and digital filing structures were agreed on in the first weeks of the response but this was not sustained and different versions were later used in different provinces. This made data consolidation more difficult.

A national workshop was held for coordinators and information managers a few months into the response to discuss and share experiences between provinces, and to synchronise systems.

Provincial coordination teams varied in size, from a dedicated coordinator and two information managers to a single coordinator who had other operational responsibilities.

### District focal points

It quickly became apparent that coordination would be required outside provincial capitals and hubs. Many parties recognized that the practical value of coordination increased the closer it occurred to the affected populations.

District and sub-district coordination was essential for organisations entering an area for the first time to avoid duplication and to

ensure that support was reaching the most vulnerable rather than the most vocal.

The nearer coordination took place to the affected people, the challenges faced become less focused on policy and resource mobilisation issues and more focused on issues of delivery of assistance and partnership building. Practical issues included working with local government officials to facilitate access to communities, mitigating potential conflicts in resource-scarce areas and identifying the most vulnerable people affected by the disaster.

The setting-up of district focal points was a slow process requiring specific resources and funding. For each district, a capable partner had to be identified, and memorandums of understanding needed to be signed to clarify roles, responsibilities and cost recovery issues.

### 2011 and 2012 floods

In the 2011 and 2012 flood responses national and international non-governmental organisations were responsible for coordination at the district level. The role of the district focal points was to monitor and support the shelter cluster members in the implementation of their programmes, liaise with local government and keep them aware of relevant issues, provide technical and trouble-shooting advice and maintain an overview of who was doing what, and where they were working. This allowed a close and thorough monitoring of the response and resulted in a more informed coordination at national and district level.

During the recovery phase, three agencies acted as district focal points and each covered two districts. The same district focal points were transferred to Northern Sindh after the 2012 flood. Their experience and knowledge ensured the rapid establishment of coordination in the newly affected areas.

### Non-emergency activities

The importance of preparedness was emphasised by the government, humanitarian organisations and donors alike. Pakistan's recurrent natural disasters and ongoing complex emergency make preparedness crucial. Consequently, cluster leadership obligations expanded beyond response to include contingency planning.

The shelter cluster prepared contingency plans for 2011 and 2012 in coordination with cluster members, other clusters, and various levels of government. Stock lists were compiled to show stock levels before the monsoon season. A summary of capacity in terms of human resources was made, with lists of trainers and experts who could support emergency distributions and assessments.

After the 2012 flood, the government of Pakistan did not request international humanitarian support. Instead it requested for relief stocks from the existing contingency plans developed by the clusters to be distributed to complement its own response.

## A.21 Pakistan – 2010 – Floods

**Case Study:** **Keywords:** Non-displaced, Tools, Core housing construction, Cash, Infrastructure, Training.

### Country:

Pakistan

### Disaster:

2010 floods

### Disaster date:

July to August 2010

### Number of houses damaged / destroyed:

1,744,471 households damaged in total (876,249 households damaged in Sindh province)

### Project outputs:

5,350 shelters constructed  
61 construction trainings  
7,638 households cash-for-work for shelter construction

### Occupancy rate on handover:

92 per cent

### Shelter size:

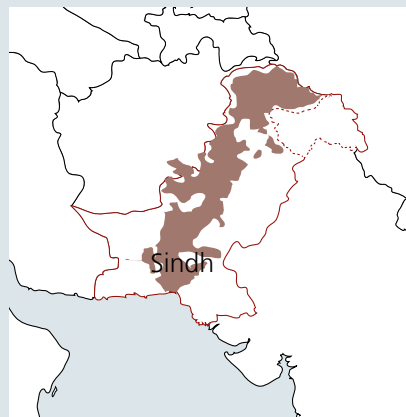
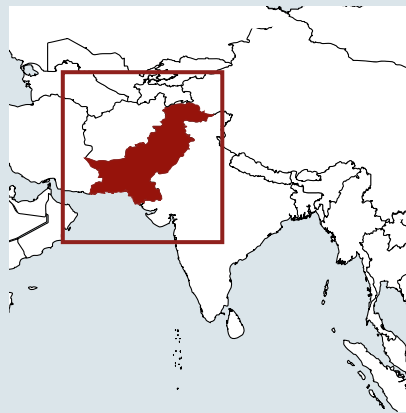
Pilot shelter: 20m<sup>2</sup>

### Materials cost per shelter:

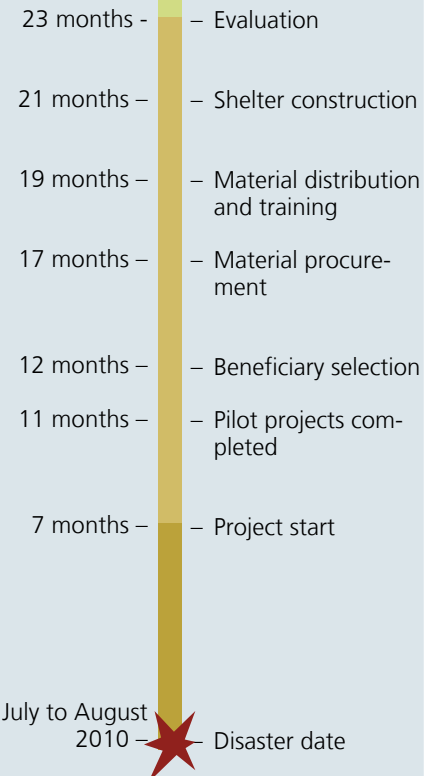
US\$ 710 for the shelter materials and labour

### Project cost per shelter:

US\$ 983 for the shelter component of the project



### Project timeline



### Project description

The project provided shelter, food security and disaster resilience assistance to flood-affected communities in Sindh province. 5,350 families were provided with materials, labour and trainings to enable households to rebuild their shelters. The project design was designed on community-based Disaster Risk Reduction (DRR) principles, but the constraints of a short project timescale and high target numbers made this challenging.

### Strengths and weaknesses

- ✓ Investment of time in a pilot project showed what would work at scale.
- ✓ The project aimed to make a lasting impact despite short term funding by incorporating permaculture, DRR principles and food security.
- ✓ Use of locally available materials and skills as well as a strong technical training component created a shelter design that could be replicated by other families.
- ✓ In depth vulnerability assessment helped improve targeting.
- ✗ Large-scale direct procurement was complicated by scarcity due to high post-flooding demand for materials.
- ✗ Some community based DRR activities were hard to complete due to tight timeframes and the need to construct quickly and at scale.
- ✗ The project was slow to start due to the extensive

beneficiary selection process and piloting leaving families with a delay before shelter support was available.

- ✗ The high cost of the shelter in comparison to local houses reduced the likelihood of replication.
- ✗ Relatively high cost of beneficiary contribution may affect timely financial recovery.
- This project was part of a multi-sectoral approach that included WASH, shelter and food security programmes, implemented in the same target areas.
- Highly sensitive security situation in target areas lead to a need for self-help and a 'do-no-harm' approach.
- The project led to many discussions in Pakistan on the benefits of introducing horticulture and permaculture-inspired principles into recovery programmes.
- Flooding in the same areas in 2012 meant that the DRR elements of the project were tested and can be evaluated.



The project was designed on community-based disaster risk reduction and permaculture principles. However it found it difficult to maintain these principles and effect the social change required given the scale and donor time frames.

Photo: ACTED



### After the floods

(See A.22, *Shelter Projects 2010 for background*)

The 2010 floods reached northern areas of Sindh Province in August 2010. Comparatively few humanitarian actors were in a position to respond to the scale of the disaster.

According to an assessment in the target area, up to 60 per cent of households had lost their shelter entirely, while nearly all rice and vegetable crops were damaged or destroyed. The crop damage was a particular problem in northern Sindh since agricultural livelihoods provided the primary source of income.

Access to shelter and livelihoods were reported as a priority need under the Relief Response Plan launched on 1<sup>st</sup> March 2011 by the Government of Pakistan.

Where possible, shelters were to be constructed using locally available building materials. In addition to the provision of shelter materials, organisations were encouraged to promote 'appropriate technical assistance and support revitalisation of the supply chain of key materials'. Using social mobilisation and mass communications strategies, beneficiaries and their communities were to be mobilised to directly participate in the construction process, either through material or labour contributions.

### Selection of beneficiaries

Union Councils are the local administrative unit for humanitarian coordination in Pakistan. The Union Councils to be supported were selected on the basis of flood damage and a gap analysis of responses planned by other actors.

A 15 minute questionnaire was completed for each household in each Union Council. Over 24,000 families were interviewed to identify the most vulnerable households. This survey and data analysis took four months. Finally 5,350 families were selected, meeting the following criteria:

- Households headed by vulnerable people such as elderly, female or disabled people.
- Families with a significant proportion of children under five years of age, elderly, pregnant and/or lactating mothers and malnourished children.
- Basic low socio-economic characteristics, including a lack of income, assets, and breadwinners in the family, and/or chronic debt.

Local community-based organisations were identified, or established. They were responsible for verifying the accuracy of information provided and ensuring that no vulnerable families were excluded.

Houses were rebuilt in the same locations as before the floods, either on their own land or with the agreement of their landlord.

### Implementation

The shelter components of this project comprised four key activities:

- piloting of various shelter designs to enable the identification and replication of innovative best practices
- provision of shelter materials and toolkits
- provision of training on shelter construction incorporating DRR principles
- shelter construction using cash-for-work.

Throughout the project, the organisation conducted extensive community mobilisation activities, including hazard mapping and village planning.

### Pilot phase

In the initial stages of the project, the organisation purchased compressed earth block machines, trained community members in their use, and built several pilot shelters.

However the community and the organisation's engineers expressed the following concerns about the use of compressed earth blocks:

- Production was slow and labour intensive, especially during extreme summer temperatures.
- The local soil type was not ideal for creating the blocks and a lot of training was required to get the right mix of clay and sand.

- There was a lack of acceptance of mud houses, as in the local language mud houses are described as “*katcha*” (bad) houses and brick concrete described as “*pukka*” (good) houses.
- It was very difficult to transport the blocks for more than a few hundred meters as they were easily broken in transit.

Given these obstacles and the size of the project, the organisation decided not to continue with compressed earth blocks. Instead they provided fired bricks and cement for the lower portions of the walls. The beneficiaries contributed sun-dried or fired bricks from the windowsill level up to the roof. In many cases people were able to find or purchase fired bricks for their contribution.

The one-room shelter design went through several adjustments based on the feedback from the organisation’s engineers and the community. These included the location of the door, the number of windows, the type of ventilator, the number and spacing of columns, the type of construction material, and the procurement method for bricks.



Compressed mud blocks were abandoned after the pilot stage due to a lack of community acceptance and slow production speed.  
Photo: ACTED

## Implementation

The project was run as two projects, each funded by separate international donors. Implementation varied between the projects, though in both cases beneficiaries provided half of the unskilled labour. Skilled masons were provided by the organisation.

On-site training was given to the masons, focusing on shelter design and quality control of brickwork and foundations.

## Coordination

Coordination between other humanitarian actors working in the area and the local authorities, including the provincial disaster management authority, enabled the organisation to share lessons learnt from the innovative techniques and approaches piloted through this project. Land rights issues were addressed through working with other shelter partners, facilitating constructive engagement with landlords.

## DRR / permaculture

Northern Sindh is highly vulnerable to future flooding, particularly as the 2010 floods damaged drainage and floods defences. The inclusion of DRR principles in shelter designs and mobilisation activities was a strong focus of the project.

Improved disaster - resilient construction techniques included raising platforms for shelter construction, and improving roof drainage.

DRR trainings were provided to target communities as a whole, not just direct beneficiaries. Locations for construction were agreed following hazard mapping by the community. Cash for work projects were conducted to repair embankments and some flood defences.

The initial concept was to combine tree planting, kitchen gardening and permaculture principles to capture waste water and improve the village environment and food security. The extreme summer temperatures and saline soil in this part of Sindh, variable

soil conditions, and the required scale and speed of the project made this part of the project challenging.

Despite this, some villages greatly appreciated the trees, and kitchen gardens were well tended. The organisation was able to use the lessons learned from the disaster risk reduction components in its response to the 2011 floods in southern Sindh.

## Materials list

Materials	Quantity
<b>Shelter toolkit</b>	
Wheel barrow	2
Kassi (Trowel)	5
Spade	5
Sill (plummet)	1
Steel pan	5
Block making frame	4
Mask	4
Cotton gloves	4 pairs
Payodin (injury cream)	1
Band aid (rolls)	2
Water level	1
Iodine balm	1
<b>Shelter construction materials</b>	
Fired bricks (Size 8.5"x4."x3")	3,228
Mud blocks (Size 6"x8"x12")	1,115
Cement	7 bags
Sand (wastage not included)	85 ft <sup>3</sup>
Stone crush	10 ft <sup>3</sup>
Brick ballast	46 ft <sup>3</sup>
Mud	218 ft <sup>3</sup>
Bhoosa for mixing mud plaster and roof	80 Kg
Steel girder (13.5"x 3.5"x7.5")	27 ft.
Bamboo (19.5' length average dia 2.5")	254 ft.
woven mats (size 19.5x13.5)	263 ft <sup>2</sup>
raw straw	108 ft <sup>3</sup>
Polythene sheet	263 ft <sup>2</sup>
Galvenised iron spout 2' length	1
Wooden door 3'x6' with frame 3" x 3"	1
Wooden window (size 2' x 3', frame 3"x3")	1
Wooden door lintel (3"x4.5"x4.5')	2
wooden ventilator lintel	2
Wooden window lintel (3"x4.5"x4.5')	4
Bitumen for damp proof course	1 Kg