



Project	<b>Community-based permanent housing</b>
Project name	<b>An owner-driven reconstruction project with a cash approach in Dadu District/Sindh</b>

Country	<b>Pakistan</b>	
Region/town	<b>Tehsil K.N.Shah, Dadu District, Hyderabad, Sindh</b>	
GIS data (WGS 84)		
Project type	<b>Post-disaster Reconstruction</b>	
Typology	<b>Individual Housing</b>	
Approach	<b>Owner-driven beneficiary participation with SRC monitoring and supervision</b>	
Beneficiaries	<b>Local population affected by the floods in 2010</b>	
Climate	<b>subtropical</b>	
Special constraint	<b>Very remote and volatile area, extremely hot climate</b>	
start / end of project	<b>01.06.2011 – 31.07.2013</b>	
Country GNP	<b>USD/ cap U\$ 2'900 (2012, est.)</b>	

### Partners

Organization (donor)	Swiss Red Cross (Swiss Solidarity)
IO/NGO partners	Pakistan Red Crescent Society (PRCS)
GO partners	

### Context to project

Initial Situation	Torrential monsoon rains commenced in late July 2010, triggering massive floods that swept through the Pakistan provinces of Baluchistan, Punjab, Khyber Pakhtunkhwa (KPK), Federally Administered Tribal Areas (FATA), Pakistan Administered Kashmir (AJK), Gilgit Baltistan, and Sindh. The worst floods to hit Pakistan since 1929 have affected over 20 million of Pakistan's 180 million people, killing over 1,900 people, submerging and damaging homes, roads and bridges, cropland and public infrastructure. The Pakistan government estimated that one in 12 of Pakistan's total population (20.2 million people) had been affected, and depended on aid for survival. More than 4 million have been left without shelter. One of the most affected provinces was Sindh.
Goals, Beneficiaries	Support the most vulnerable, flood affected households in the rural communities of Bhadur Pur, Mano Khan and Mevo Khan Chandio in Dadu district, Sindh with the construction of 700 houses.  This project was complemented by a Water, Sanitation and Hygiene intervention targeting the same communities and providing latrines and common water points for 697 and hygiene promotion for 2000 households.
Implementations / Results	709 houses were constructed. The initial amount was increased by 9 houses due to the need. The initial shelter type included a single pit latrine which was taken out in the course of the project and upgraded and adapted into a separate WASH project.



## Reference data (comparative)

Land plot (per house unit)	N/A	Garden	N/A
Ground floor (incl. walls)	28 m <sup>2</sup>	Floor (incl. walls)	28 m <sup>2</sup>
Occupants max.	13	Occupants min.	1
Total house area	28 m <sup>2</sup>	Surface / occupant	4 m <sup>2</sup> (ave. 7p / house)
House volume (outside dimension)	92 m <sup>3</sup>	Volume / occupant	13.1 m <sup>3</sup> (ave. 7p / house)
Number of rooms	2 rooms	Occupant / room	4p/room (ave. 7p / house)
Heated area	N/A	Heated area/occupant	N/A
cost /unit	2.622 USD	cost/occupant	374.57 USD/cap
cost/m <sup>2</sup>	94 USD/m <sup>2</sup>	cost/m <sup>3</sup>	28.5 USD/m <sup>3</sup>
Total housing cost	2.622 USD		

## Approach to results

### Initial Situation

The villages of Bhadur Pur, Mevo Chandio and Mano Khan Chandio were completely destroyed by the devastating floods in 2010. 709 houses were washed away and due to the lack of means the owners were not able to provide themselves with new shelters.

Due to the overwhelming needs a joint cooperation between the Shelter Cluster, the National Disaster Management Authority (NDMA) and the local authorities agreed on minimum standards for a 2-room permanent house design which was shared with all shelter agencies.

### Approach

A project assessment with the support of the Pakistan Red Crescent Society (PRCS) volunteers and the development of designs in cooperation with the beneficiaries and by incorporating the recommendations of the Shelter Cluster took place in March 2011.

After the beneficiary selection, each beneficiary had to register for a landowner ship certificate, residence certificate, ID card and bank account. Copies of these documents were collected and a contract agreement was signed between SRC and each beneficiary.

Preparation work such as cleaning of project sites and plot delimitation was done in May 2011 as part of a food for work approach.

The beneficiaries were then divided into 7 groups by the village committees according to their vulnerability. Beginning with the first group, these groups received a construction training for each of 5 steps of the construction works. For each construction step the beneficiary received one instalment payment by crossed cheque into his bank account to purchase construction material. After the first construction step was completed by the whole group, the group could move on to the next construction step and received the next instalment payment. The whole construction process and material purchase was monitored, supervised and managed by the SRC construction team.

At the completion of the houses, each beneficiary received a hand over certificate. A database was established for all beneficiaries as well as copies of the bank books and field reports signed by each beneficiary including fotos were collected as final proof of fund implementation.

The project was implemented in agreement with the Pakistan Red Crescent Society (PRCS) and the local government.

## Problems/Constraints

### **Security:**

Due to the abductions of several expats from different organizations since January 2012 and the murder of an ICRC Delegate at the end of April 2012, the RCRC Movement issued new security instructions for delegates working in the field. Until mid-June 2012, delegates were not allowed to travel to the field. Implementation was overseen by the SRC national staff who was either based on the project site or who continued to travel regularly to the project site. These tightened security measures had a direct impact on the project as it delayed the implementation process by 1 months.

### **Coordination with partners:**

The PRCS provincial HQ in Karachi facilitated regular coordination meetings between all Movement Partners operating in Sindh on a monthly, later bi-monthly basis. However, the lack of communication and coordination between the National PRCS HQ and the Provincial PRCS HQ affected the project in the regard that despite a signed Memorandum of Understanding (MoU) between PRCS and SRC, a specific agreement for the construction project in Sindh was never officially signed. The tension between the national and provincial level therefore led to a more uni-lateral than a former planned bi-lateral project implementation.

### **Relationship and cooperation with stakeholders is satisfactory:**

The instalment payments per cheque through the post office have proven to be the best and most reliable way for handing funds to beneficiaries. No corruption has been observed and the post office staff from Hyderabad, Dadu and K.N. Shah have been very reliable and helpful.

However, despite the assurance that each transfer would only take ten days from the date of issuing the cheques until the reception of money in the bank accounts, the average time was much longer (up to 33 days). This caused a delay of four weeks in the construction process.

### **Beneficiary participation in reconstruction:**

Due to the above mentioned extra time needed for transfers, the next instalment had to be issued before the previous construction phase was completed and SRC was no longer able to apply peer pressure on the communities. Throughout the project implementation, it became however clear, that peer pressure is generally not working very well in these communities. It is more the good reasoning and showing the advantages of working along the agreed procedures which helps solving problems. However, not having the possibility of peer pressure at all showed that communities started slowing down the reconstruction process after having received the final instalment. As a solution, SRC revised the instalment procedures. After consultation with the village committees, it was agreed to hand out the final instalment for cultural habit and green environment support once all the houses in each village have been completed. This increased the satisfactory work of the communities.

## Lessons learned

### Mapping:

Mapping activities for urban planning was an on-going topic during the project implementation. Its support could be helpful but it has to start at an early stage of the program in order to help setup logistics, to take time for proper Community involvement through Community Action Planning (CAP) and to avoid duplication. The additional required time would be 6 months and this also needs to be communicated to and understood by the stakeholders.

### Contextual understanding:

Constructing shelters requires the understanding of the environmental, socio-political, cultural and economic context. It is a process that requires an integrated approach. In this case it proved especially important to understand the different dependencies in the community itself. Sensitivity towards hierarchies and different tribal aspects inside one community was an essential part to the project success.

### High quality management:

Especially in a context where proper construction tools (concrete mixer, vibrating compactor) cannot be used due to the lack of electricity etc., a proper monitoring system needs to be established and a sufficient amount of personnel has to be considered into the planning process. It is also of essence to change one's mind set and step back from the "Western World Ideal" where everything is available and to develop an open mind of "What simple tools and means are already common in the context and is there a possibility to improve them".

### Flexibility:

Since the socio-cultural context cannot always be understood with depth in advance, it is important to build flexibility into the project to be able to adapt to an evolving context. This flexibility requires the openness of donors that alternative solutions may arise during the course of the project.

## Evaluation

### Internal Evaluation:

Visits by the SRC Program Coordinator twice per year (total 5)

### External evaluation:

Swiss Solidarity (SwS), one of the main donors of the project, has asked the Skat group to carry out external monitoring and evaluation of the SwS funded projects. Two visits took place. After each visit a report was suggesting recommendations for further improvements. Meetings and workshops were also organized with other SwS's partners to create synergies and encourage learning.

### End of project survey:

At the end of the project, a survey was conducted about the occupation and the completion of the constructed houses. It shows that 100% of the houses have been constructed; 57 are not inhabited yet as the beneficiaries are waiting to move in after the latrines (part of the complementing WASH project) are completed and 21 houses have been sold to some other parties in the last 2 years and are inhabited by these new parties now.

## Legal framework

### Politically attached to

Tehsil K.N.Shah, Dadu District, Sindh Province

### Type of ownership

#### Handover Certificate:

Every beneficiary received a house handover certificate at the end of the project

#### Securing ownership:

Together with the survey department an ownership certificate has been issued to each beneficiary to ensure their property rights



## Construction information

<b>Construction Structure</b>	Foundations	Six 80cm deep reinforced concrete foundation point	
	Walls or columns	Reinforced concrete frame structure with 2 ring beams and six columns	
	Facade	confined masonry brick wall	
	Roof	ventilated T-beam structure, with brick tiles, concrete slab, roof foil and sloping concrete for dewatering	
<b>materials</b>	Earthquake protection	Concrete frame structured, confined masonry	
	Floor surface	Screed pavement	
	Walls	9" wall out of locally burned bricks 4.5"x3"x9"	
	Doors	1 metal entrance door	
	Windows	2 metal windows	
	Ceiling	Roof tiles 12"x6" between T-bars	
	Thermo insulation	N/A	
	Roofing	7" steel girder covered by 1 layer of plain concrete 3", polythene sheet, 1 layer of plain sloping concrete	
	<b>watsan</b>	Water	N/A
		Toilets	N/A
Waste water		N/A	
Rain water		N/A	
<b>equipment</b>	Heating system	N/A	
	Electricity connection	Sample training by a certified electrician for one house per village (total 3), installation of 2 ceiling fans, 2 lights, 2 switch boxes, main switchboard, connecting wire and pipes	
	Telephone connection	N/A	
	Cooking facilities	N/A	
<b>Total</b>		<b>100%</b>	

## Urban planning

<b>Distance to</b>	Health center	5 km
	Education facilities	Between 0,1 km to 1 km
	Income activities	Mainly farming
	Public transport	Rickshaw (local bike taxi)

## For further information

Involved SHA construction group consultants	
Other involved SHA consultants	
Author / Contact:	Heike.Kemper@redcross.ch
Recommended Institutions:	
Recommended partners:	Pakistan Red Crescent Society (PRCS)
Recommended books/reports:	
Relevant other projects (links):	
Annex	



**Relevant illustration**



Beneficiary Training for the use of the Schimidhammer for concrete strength testing.



Installed formwork for the house foundations.



Confined masonry walls and reinforcement work.



Cut and painted iron T-profiles for roof tile installation.



Ceiling and roof work.



Completed ceiling with T-bars, iron T-profiles and roof tiles including ventilation openings.



Installation works for doors, windows and canopy.

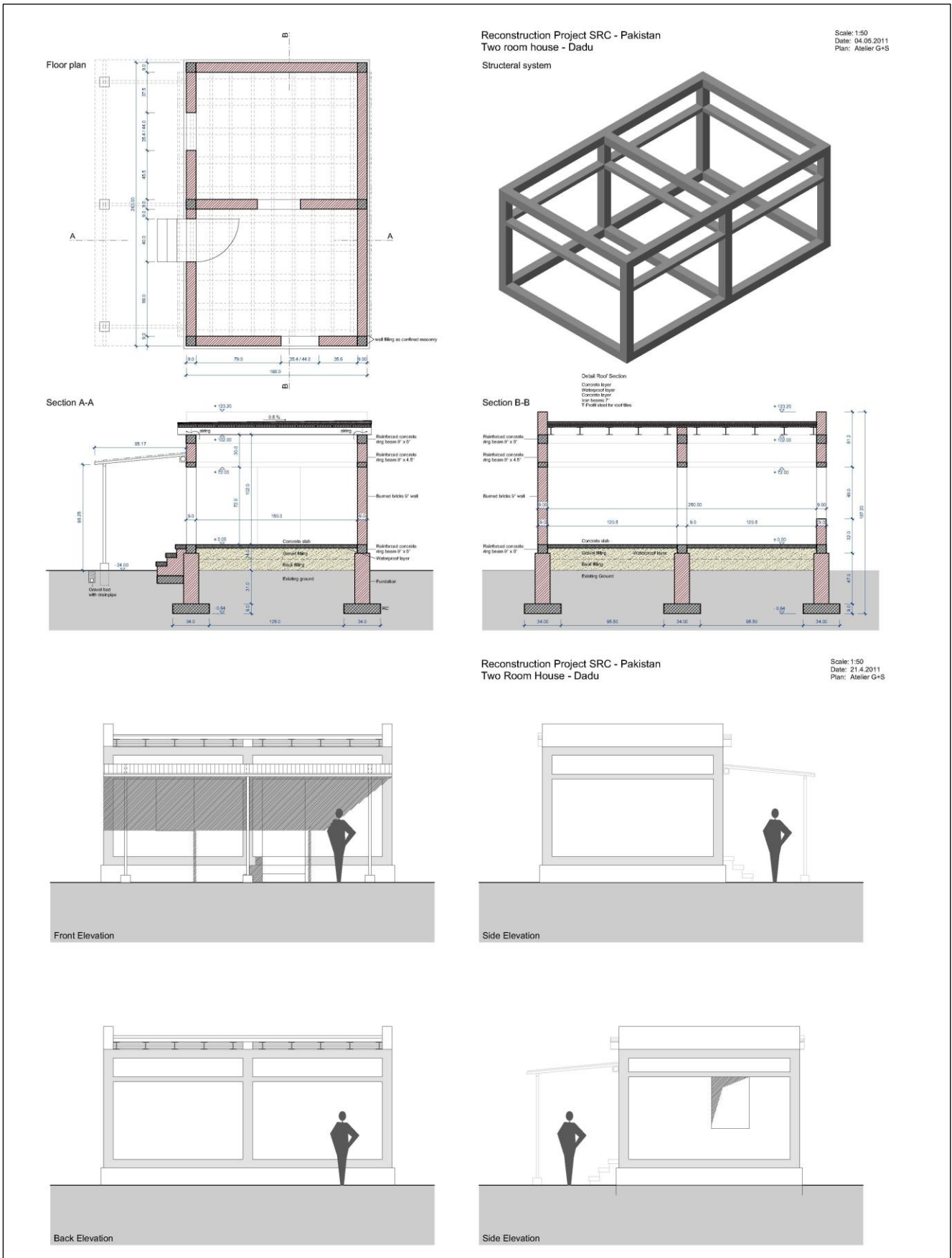


The moving in is supported by neighbours and family.



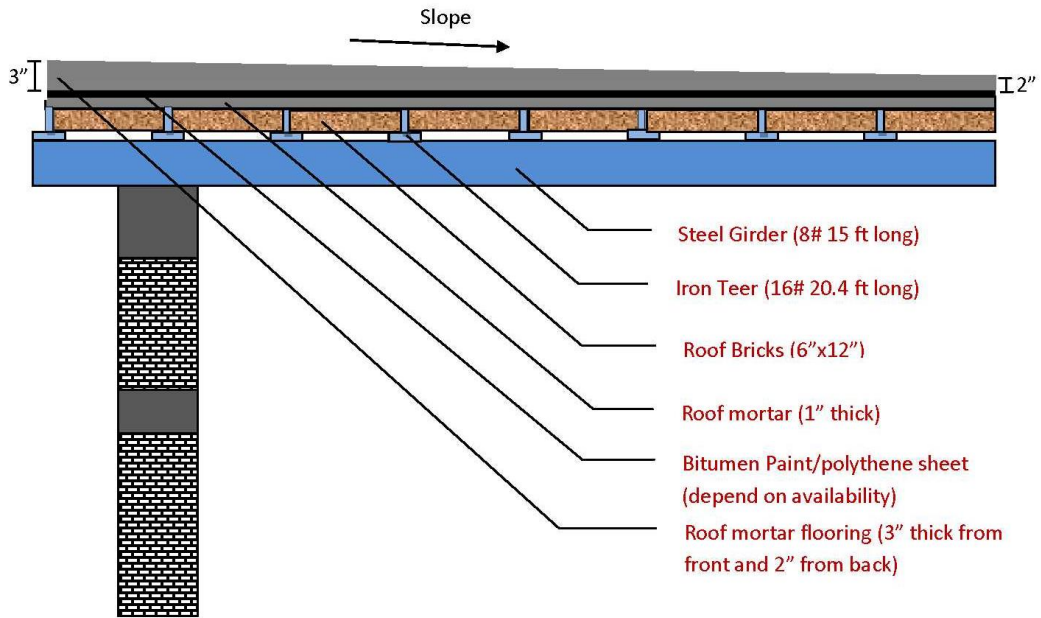
A completed house including planted tree and compound wall as part of the cultural environmental aspect.







### Side view section



### Front view section

