

BAHAAL

EMERGENCY RELIEF & EARLY RECOVERY FOR THE
FLOOD AFFECTEES ACROSS PAKISTAN

2010-2011



Field Monitoring Report

6th June - 19th June 2011

Visited and Compiled by: Syed Abid Hussain Shah

(Project Engineer –Bahaal)

The goal of this project is to sustain life, reduce human suffering and mitigate homelessness for the survivors of the July 2010 flood in Pakistan through transitional shelters. For areas hit by natural disasters i.e. earth quake, tsunami and flood etc. Transitional shelter is a new concept which deals with effective budgeting and following of techniques which help in reducing the construction cost through the use of locally available materials along with improved skills and technology without sacrificing the strength, performance and life of the structure. Under Bahaal project, USAID provided such Transitional shelters to the flood affectees to cope with the situation. This project enables the construction of emergency shelters with locally available material and provides temporary employment opportunities for flood affected communities.

As the 2010 flood destroyed the livelihood of thousands of people who were left with no way of making an income through traditional methods i.e. agriculture. This project not only provides shelters to the flood affected community but a hope and a way to feed their families with something other than handouts. As this project was able to provide temporary employment to the people affected by flood for construction purposes, a great portion of all the laborers employed under the project came from the flood affected communities.

Usually the building construction cost can be divided into two parts namely;

Building material cost: 60- 65 %

Labor cost: 35-40% but in case of TS provided by USAID under Bahaal project, building material cost is less because use of the locally available materials and labor cost had also been reduced by using the unskilled available human resources.

As mentioned earlier under this project shelters were provided to the flood affected community of all the provinces of Pakistan. Project engineer Bahaal at PSU level conduct field visits for the physical verification of these shelters time by time. This report is about my last visit to main flood affected areas of Sindh along with other monitoring officers of Bahaal project from 6th June to the 19th of June 2011. The six districts covered during this visit were Shikarpur, Jacobabad, Qambar ShahdadKot, Dadu, Jamshoro and Thatta. The purpose of the visit was to verify the technical and physical progress of Transitional Shelters in the said area and ensuring that the RSPs named SRSO, SGA and NRSP have complied with the paperwork requirements for each beneficiary. The other objectives of this visit were

- Monitor implementation of transitional shelter construction activities and check documentation of each beneficiary.
- Close coordination with each beneficiary and asked in a non intrusive manner, about the beneficiary's relationship with SRSO Bahaal staff
- Carry out the construction quality evaluations and work progress of TS being implemented or completed by SRSO directly or through Partners.
- Propose improvements on the basis of ground situation in construction of TS, project implementation methods and procedures used by field teams in order to assure maximum efficiency and quality.
- Field monitoring of constructed transitional shelters to review the quality of the work.

Visit to SRSO from 7th to 15th June 2011

1. Name of Monitor / Observer:	Syed Abid Hussain Shah
2. Designation Monitor / Observer:	Project Engineer
5. Visit Date:	7 th - 15th June 2011
6. Name of RSP	SRSO
7. Name of Districts:	Jacobabad, Shikarpur and Shahdad kot

I started my visit from SRSO which played an important role in making the Transitional shelter component a success under the Bahaal project.

Transitional Shelters

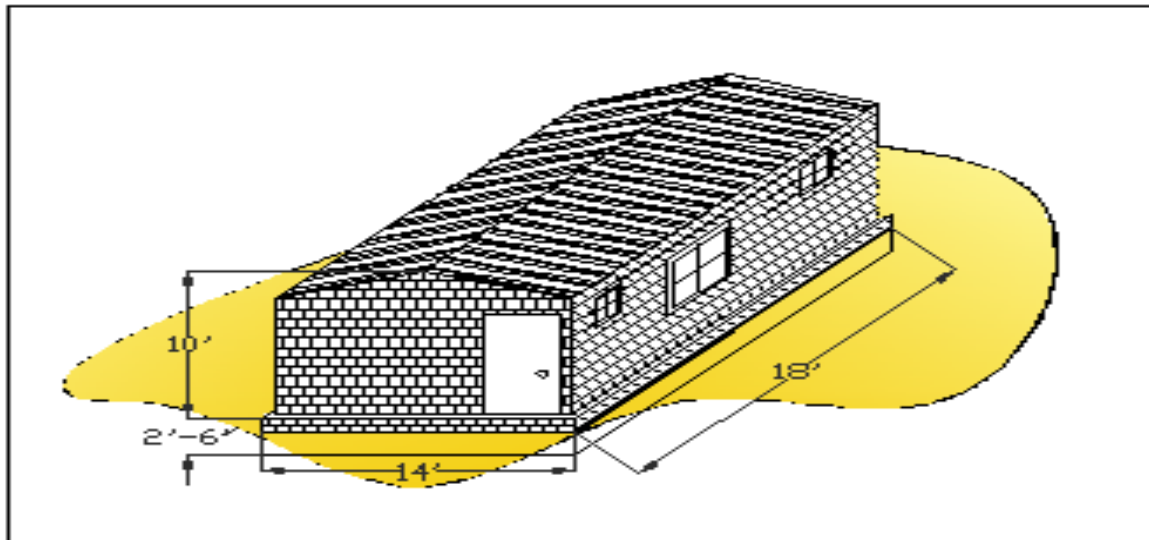
A total of 2,200 families were provided with TS in three districts of Sindh namely Jacobabad, Shikarpur and Shahdad kot under Bahaal project.

Shelter Design

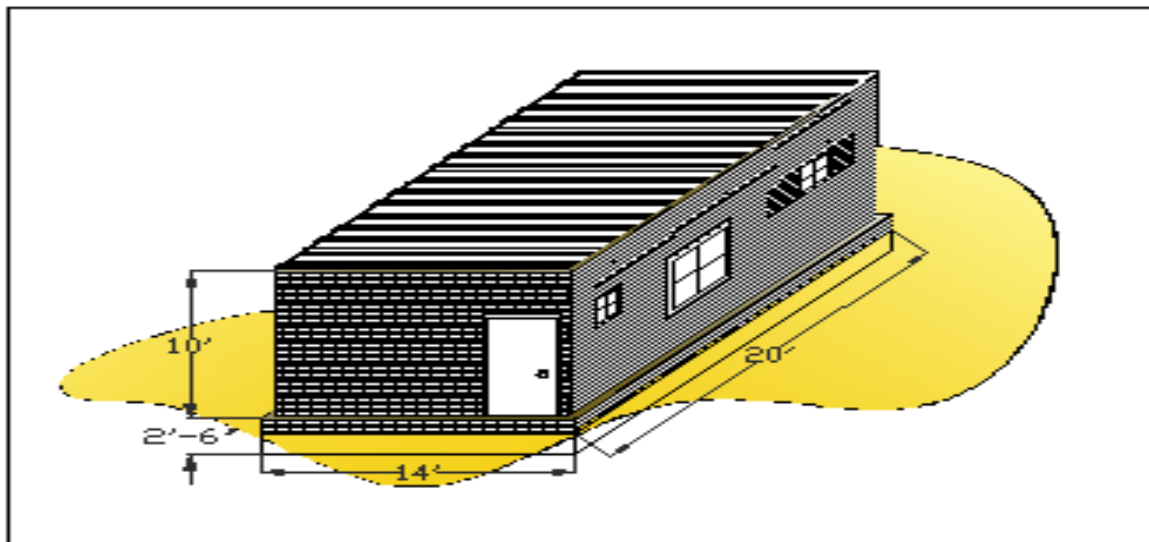
After the 2010 floods, USAID distributed a strategy document detailing suggested guidelines in the technical implementation of the transitional shelter program. SRSO initially adopted the same design and guidelines for the construction of transitional shelters in the flood affected areas. But after SRSO survey team completed the beneficiary assessment they realized a need of new design in considering the environmental and geographical conditions of the area. So SRSO approved a new modified design from USAID for transitional shelters using the same guidelines provided by USAID i.e. 280 Sqft covered area. The specifications of approved design of SRSO by USAID are given in the following table:

Description	Details
Total covered area/size of TS	260 Sqft up to 280 Sqft
Foundation	2.5 ft (1.5 ft below ground and 1 ft above ground level)
Walls	9-13 inch thick walls
Roof	Steel girder and bamboo roofs
Mud plaster	1 inch
Windows	1
size of window	4'x4'
Number of ventilators	2
Size of ventilators	1.5'x1.5'
No. of Door	1
Size of door	3.5'x7'
Flooring	One foot rise from ground level

SRSO provides two types of roof depending on the beneficiary preference i.e. flat roof and hut shaped roofs.



Transitional Shelter with Hut Style Roof



Transitional Shelter with Flat Roof

Types of TS which have been constructed in the above mentioned districts are:

- Kachi pakki bricks
- Totally kachi bricks with mud, mortar & plaster
- Totally pakka bricks
- Totally pakka bricks with mud, mortar & plaster

The detailed BoQ for each type of TS is given in **annexure I**.

SRSO also adopt the idea to provided ration by WFP (under Food for Work project) to each House hold whose members are involved in labor while constructing of their TS. Witch was a great idea to involve beneficiary to work hard and finish there Shelters in time. SRSO was able to provide temporary employment for peoples, of which some were contract laborers, from the local market for construction purposes. An additional peoples were also hired under the food-for-work initiative of WFP. A great portion of all the laborers employed under the project came from the flood affected communities.

Physical Progress of transitional shelters

Name of District	Targets	Physical Progress			No. of TS initiated	% TS initiated	No. of T.S completed	% Completed
		Excavation	Lintel Level	Roof Level				
Jacobabad	200	0	0	0	0	0%	200	100%
Shikarpur	200	0	24	27	200	100%	149	75%
Shahdad Kot	1,800	0	435	665	1,800	100%	700	39%
Grand Total	2,200	0	459	692	2,000	100%	1049	53%

Table: Physical Progress of transitional shelters in three districts of Sindh as of May 2011

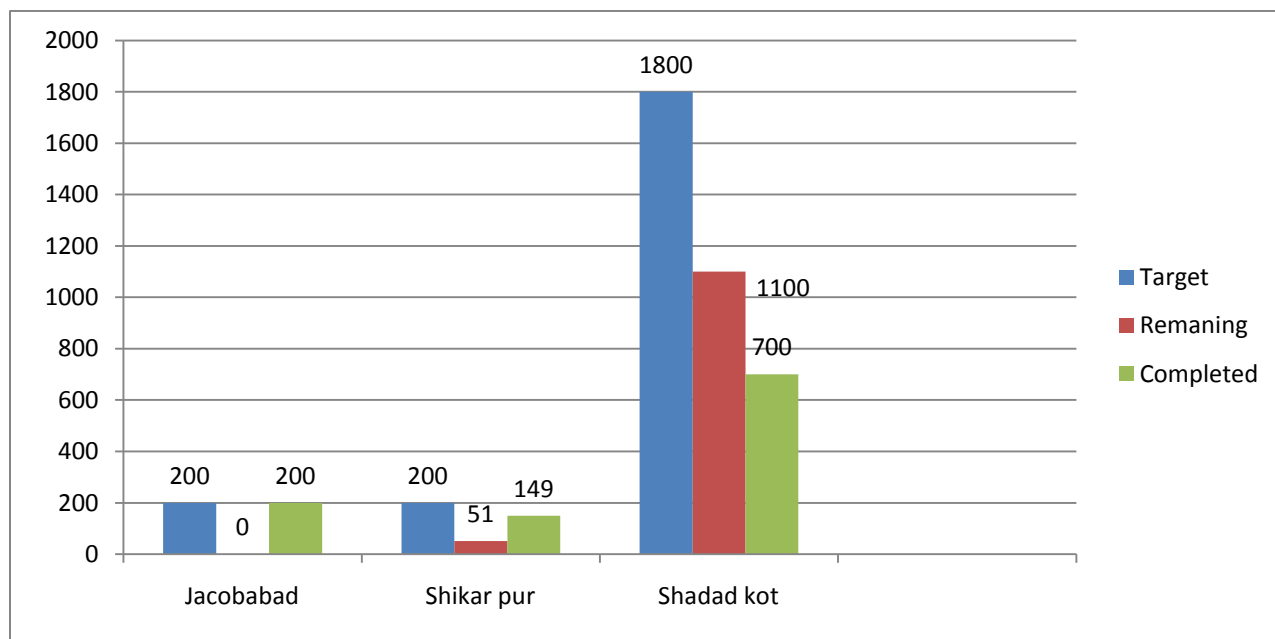


figure 3 : Graphical representation of TS progress in Sindh

8th June 2011, Jacobabad:

1. Name of Monitor / Observer:	Syed Abid Hussain Shah
2. Designation Monitor / Observer:	Project Engineer
5. Visit Date:	8 th June, 2011
6. Name of RSP	SRSO
7. Name of District:	Jacobabad

Meeting with SRSO Jacobabad staff:

We visited SRSO's office in Thull, district Jacobabad on 8th June, 2011. Ms. Rukhsana Shar, DPO Jacobabad and field engineer briefed us on the project progress since our last visit in April of this year. All activities of the Bahaal Project have been successfully completed within the prescribed deadlines. Ms. Shar and her team were commended on a brilliant effort in regards to all sectors of Bahaal Project. Ms. Ruksana shar briefed me about the progress of TS in the district.

The construction of transitional shelters took place in UCs Mirpur Buriro and Deen Pur. A total of 200 shelters have now been completed, 100 in each UC. I along with field engineer checked the paper work/file of each beneficiary in detail and upon checking found the following documents in the file.

1. Beneficiary request for a shelter.
2. Token/registration form
3. Check receipt with acknowledgement.
4. Installment release form.
5. CNIC copies
6. Summary of cost for each shelter.
7. GPS coordinates.
8. Photographs (before and after).
9. Completion certificate.

I observed that the cost estimate was same for each shelter so I discussed with the district engineer to replace this standard cost estimate with the actual cost of each shelter constructed. The project team for Bahaal in district Jacobabad assured me that the suggested cost estimate will be placed in the files of beneficiaries and shared with PSU along with the beneficiaries list.



Beautiful One Room Shelters by USAID Bahaal in the village of Laandi Ali Murad Shah

Progress Update:

Name of District	Targets	Physical Progress			No. of TS initiated	% TS initiated	No. of T.S completed	% Completed
		Excavation	Lintel Level	Roof Level				
Jacobabad	200	0	0	0	200	100%	200	100%

9th June 2011, Shikarpur:

1. Name of Monitor / Observer:	Syed Abid Hussain shah
2. Designation Monitor / Observer:	Project Engineer
5. Visit Date:	9 th June 2011
6. Name of RSP	SRSO
7. Name of District:	Shikarpur

Meeting with SRSO Shikarpur staff:

On 8th June, 2011 I met with DPO Mr. Nasrullah, Project Engineer Mansoor and other staff members at the Shikarpur office. During this meeting the overall progress of Bahaal Project came under consideration and we focused on the progress of TS in district Shikarpur. He told me that out of 200 target, 149 have been completed and remaining were under construction.

Upon checking the documents of the beneficiary it was found that the paper work was complete except the GPS reading with proper filling. So it was decided that in the next two days during field visits they will also take the GPS reading of each beneficiary in my presence. They were also suggested to revise the BOQ of each shelter as per actual expense and advised them to prepare separate cost estimate for each type of TS approved by USAID. Types of TS which have been constructed in the Shikarpur are:

- Kachi pakki bricks
- Totally kachi bricks with mud, mortar & plaster
- Totally pakka bricks
- Totally pakka bricks with mud, mortar & plaster
- With flat roof

They were requested to prepare the standard cost estimate according to the type of TS which was adapted by the beneficiary in the field. I also told them the reason that the USAID is very much concerned to know the actual expense of the TS. So it was recommended to that separate cost estimates were prepared and mentioned on the completion certificate of each beneficiary.

The shelters observed had a foundation of approximately 1 foot below the ground whereas the Plinth level was 2.5 feet.

Field Visit to Union Council Jaggan, Gari daikho and Jahanwah;

Village Mubarak Marfani, Agha Akhtar Muhammad, Agha ghulam Nabi, Mohammad bux jaffari and Agha Jan Akhtar

During my field visit I covered all five villages of three union councils of district Shikarpur. During the field visit it was observed that a few shelters were built completely of bricks whereas others were half brick and half mud brick. The villagers were very happy with the houses that were being constructed in their village as this was the first time their village was the seeing the sight of firm brick shelters. The one issue which was observed during the field visit was regarding the material. Initially the community used mud plaster but after taking their final installment cheques they removed the mud plaster and used cement for plastering.



Meeting with beneficiaries of transitional shelters in village Mubarak Marfani & Agha Jan Akhtar



Transitional Shelters in the village of Agha Ghulam Nabi

Progress Update:

Name of District	Targets	Physical Progress			No. of TS initiated	% TS initiated	No. of T.S completed	% Completed
		Excavation	Lintel Level	Roof Level				
Shikarpur	200	0	24	27	200	100%	149	75%

13th - 15th June 2011, Qambar Shahdad kot:

1. Name of Monitor / Observer:	Syed Abid Hussain Shah
2. Designation Monitor / Observer:	Project Engineer
5. Visit Date:	13th-15th June 2011
6. Name of RSP	SRSO
7. Name of District:	Qambar Shahdad kot

Meeting with SRSO Qambar Shahdadkot staff:

On 13th June, 2011 project engineer Abid Shah conducted a meeting with Qambar Shadhad kot project engineer Irfan Mahmood. Under the Bahaal Project, SRSO is covering five Tehsils which include Shahdadkot, Qabu Saeed Khan, Kambar, Warah and Miro Khan. The twelve UCs which fall under these

Tehsils are Jamali, Aietbar, Selra, Hazar Waah, Qabu Saeed, Bago Daro, Bohar, Dost Ali, Gaibi Dero, Mir pur, Gagi Khuhawer and Khabar.

Qamber shahdad kot has a target of 1800 transitional shelters which is the highest target given to any other district. Out of total 1800 transitional shelters 465 have been completed. Remaining TS have been initiated and will be completed very soon. The Bahaal project team was advised to speed up the process of TS construction.

Field Visit to Union Council Qabu Saeed Khan and Jamali, Village Umeed Ali Khan Junejo and Mir Haibat Khan Magsi:

The main objective of this field visit was to meet maximum beneficiaries of transitional shelters in Qamber Shahdad kot. During this field visit I verified the physical progress of transitional shelters and asked the beneficiaries about the support provided by field engineers of SRSO. The construction of transitional shelters was according to the approved design. The overall progress of SRSO was slow in this district as compared to other districts but the main reason is the target and late start of construction. I also verified the beneficiary's data of the district.



Transitional Shelters in the villages Mir Haibat Khan Magsi & Umeed Ali Khan Junejo

Progress Update:

Name of District	Targets	Physical Progress			No. of TS initiated	% TS initiated	No. of T.S completed	% Completed
		Excavation	Lintel Level	Roof Level				
Shahdadkot	1800	0	435	665	1,800	100%	700	39%

Visit to SGA district Dadu 16th June 2011

1. Name of Monitor / Observer:	Syed Abid Hussain Shah
2. Designation Monitor / Observer:	Project Engineer
5. Visit Date:	16th June 2011
6. Name of RSP	SGA
7. Name of District:	Dadu

After visiting Qamber shahdad kot, the very next day I moved to Dadu for physical verification of transitional shelters and also checked the paper work of SGA regarding beneficiaries. A total of 673 families were provided with TS in Dadu district under Bahaal project. As per their own requirement SGA also adapted the same design approved by the SRSO team from USAID, as the weather and geographical conditions of district Dadu were same. The detailed BoQ for the construction of TS is given below:

Building material Quantity

Details of Cost Estimates of One Room Shelter						
S. No	Description	Quantity	Cost/Unit	Mud Shelter		
				Total Cost	Beneficiary Share	USAID Share
A	LABOR					
1	Skilled	1	600	4,200	4,200	
2	Un Skilled	4	200	5,600	4,965	635
			Total	9,800	9,165	635
B	MATERIAL					
A	DPC Level					
1	Bricks	2,700	4	10,800		10,800
2	Mud (One Trally)	2%	300	300		300

			Total	11,100		11,100
B	Lintel Level					
1	Bricks Kaccha	5,770	2	11,540		11,540
2	Mud	1	400	400		400
3	Ventilator	2	150	300		300
			Total	12,240		12240
c	Ceiling Level					
1	Slab (Guard)	1	3,500	3,500		3500
2	Kana/Pattar	1	2,600	2,600		2600
3	Bamboo	32	110	3,520		3520
4	Tears	18	500	500		500
5	Plastic Sheet	1	505	505		505
	Chif	6	300	1800		1800
			Total	12,425		12425
d	Finishing Level					
1	Window	1	1,000	1,000		1000
2	Door	1	1,600	1,600		1600
3	Plaster (Inside)	1		1,000		1000
			Total	3,600		3600
			Grand Total	49,165	9,165	40,000

Meeting with SGA Dadu staff:

After visiting District Qamber Shahdad kot, I left for Dadu on the very next day with the purpose of verifying the progress on Bahaal Project. Similar to the meetings we held in Jacobabad and Shikarpur, I held a meeting with the team individuals and the same issues that were discussed with the SRSO were discussed in this meeting.

The main issue which came under consideration was that the SGA team followed the approved design very strictly without any changes or desirable adjustments to the design on the demand of the beneficiaries. I informed that the actual charm of this project is the design adjustment on the demand of beneficiaries and the local environment. Then I discussed in detail that they can make any amendment in the design on the demand of the beneficiaries but keeping in mind the minimum requirements of the Bahaal project. I also revised the design and BoQs of the transitional shelter.

Progress Update:

Name of District	Targets	Physical Progress			No. of TS initiated	% TS initiated	No. of T.S completed	% Completed
		Excavation	Lintel Level	Roof Level				
Dadu	673	0	125	173	673	375	56%	

Progress update for transitional shelters of Dadu district

Field Visit to UC Gozo, Village Paijaho, Ibrahim Chandio, Jan Mohammad Korejo and Abdullah Khoso

There were lots of issues which were observed during the field visit. Large number of beneficiaries in Dadu constructed mud houses by their own choice.



Constructed mud houses in UC Ghozo village Ibrahim Chandio

During field visit it was observed that some of the beneficiaries removed the already constructed roofs after taking final installment cheques under Bahaal project to take more money/ substantial assistance from another project of USAID implementing in the same area. The field teams of SGA were unaware of this issue and we discussed not only with the staff but also with the community and told them about the 2 years commitment to the Bahaal project shelter.



Villages Paijaho beneficiary took more substantial assistance from USAID

Another issue which was discussed by the team was that some of the beneficiaries politically pressurized SGA for the release of final installment without completing their shelter. They had promised to complete their shelter within a week but they did not stay true to their word.

Visit to NRSP Thatta 17th-18th June 2011

1. Name of Monitor / Observer:	Syed Abid Hussain Shah
2. Designation Monitor / Observer:	Project Engineer
5. Visit Date:	17th-18th June 2011
6. Name of RSP	NRSP
7. Name of District:	Thatta

After completion of my visit from Dadu I moved forward to Thatta where the NRSP team adopted indigenous design for these shelters, as the conditions in this region are very different from the rest of the country. Coastal winds and humidity are the dominant players in the environment and hence, before commencing any construction in the area one has to be mindful of these factors as they can have a great impact on any building. The ingredients used in construction are crucial and the ones chosen by the beneficiaries with NRSP's guidance include locally available wood called Jhandi, bamboo sticks wooden girders, steel girders and mud plaster. This timber is used to provide a wooden frame for the shelters which is then plastered with mud to give the shelter strength. Concrete blocks and bricks are not available locally, so this design also provides the villagers with a cheaper alternative which saves their cost and makes building a home for them possible. The detailed cost estimate of Transitional Shelter is given below

PARTICULARS	Estimated Cost (Rs)	Beneficiary contribution (Rs)	Contribution from USAID (Rs)
A) LABOR :			
Skilled :	5000	5000	
Unskilled	2000	2000	
Sub Total	7000	7000	
B) MATERIAL:			
Wooden Girder (15') with minimum 5" X 5" (KAM local name)	3400		3400
Woden small girlder (15') with minimum 4"X 3" size or bamboo (Phati local name)	3600		3600
Wooden Piller 11' (THAMBH local name) for supporting wooden girders	6000		6000
Wooden Piller 14' (JHANDI local name) for supporting wooden girders in centre	4000		4000
Wooden Piece/Strips/Bamboo Strips (PATTI Local name) for supporting the theched-Pakha	3600	2200	1400
Wooden lateral girder 16' for Roof (DASSA local name)	2400		2400
Wooden lateral girder 8' for Roof (DASSA local name)	5000		5000
Theched (Pakha local)	2700		2700
Plastic Sheets	900		900
Door	3000		
Window	1500		
Ventlator	500		
Nails	1800		1800
Sub Total	38400	2200	31200
Total A+B	45400	9200	31200

Meeting with NRSP Thatta staff:

Upon my visit I held a meeting with DPO Javaid Shah and all the NRSP project team of district Thatta. In this meeting they briefed me on the progress made in the implementation of the Bahaal Project since the last visit by me which transpired in the first week of May 2011. All aspects that came under the jurisdiction of the project came under discussion. These mainly consisted of assessment and design of transitional shelters as well as identification of beneficiaries.

The design adapted by the NRSP team is very unique and different as compared to the design approved for transitional shelter all over the country, in terms of material they used for the construction. They want to construct wooden walls instead of brick or cemented wall due to the geographical conditions. As this district is near to the coastal area and due to strong winds the wooden huts were successful in the said area rather than brick/block houses.

The main issue which was discussed was the size of the room which they reduced from the minimum covered area 260Sft to 168Sft. And to cover the minimum requirement of TS they added a veranda in the design. I asked them instead of veranda construction they should increase the size of room by giving some support (if required) to the roof of the TS to achieve the minimum requirement of covered area. We also reviewed the BoQs and design with mutual understanding.

I along with field engineer checked the paper work/file of each beneficiary in detail and upon checking found the following documents in the file.

1. Beneficiary request for a shelter.
2. Token/registration form
3. Check receipt with acknowledgement.
4. Installment release form.
5. CNIC copies
6. Summary of cost for each shelter.
7. GPS coordinates.
8. Photographs (before and after).
9. Completion certificate.

Progress Update:

Name of District	Targets	Physical Progress			No. of TS initiated	% TS initiated	No. of T.S completed	% Completed
		Excavation	Lintel Level	Roof Level				
Thatta	600	0	250	333	600	100%	17	3%

Field Visit to Union Council Kinjhar, village Mohammad Faqeer Mallah

After meeting I visited the village Mohammad Faqeer Mallah to check the implementation process of the TS and whether the NRSP team adopted the revised design or not. I also met with some beneficiaries to know their views about the revised design of TS. Out of 600 houses 100 TS were under

construction. I also conducted an impact survey by asking some questions to the beneficiaries. When asked if the new shelter improved security, most of them said that they felt more secure because of the new shelter. It is significant to point out that most of the beneficiaries indicated that the Bahaal project improved the quality of their lives as compared to their pre-flood lives. The overall progress of NRSP is really admirable.



Wooden Transitional shelters of Thatta



Beneficiaries with under construction Transitional shelter

Annexure I.



SINDH RURAL SUPPORT ORGANIZATION

Emergency Relief & Early Recovery BAHAAAL Project

MATERIAL COST OF TRANSITIONAL SHELTER

01 Room (18'x14.5') (Kacha/Packa bricks with mud plaster) 1st standard

S.#	Item	Quantity	Unit	Unit Rate (Rs.)	Amount
					(Rs.)
1- Plinth Level					
i	Bricks (Packa)	2368	Per 1000	5000	11,840
Total (Plinth Level)					11,840
2- Super Structure					
i	Bricks (Packa)	1800	Per 1000	5000	9,000
ii	Bricks (Kacha)	3456	Per 1000	2500	8,640
iii	Soil for mud plastering	4	Per trip	750	3,000
Total Super Structure					20,640
3-Roofing Material					
i	Wooden Door (3.5'x7').	1	No	3000	3,000
ii	Wooden Window (3'x4')	1	No	2000	2,000
iii	Wooden bamboos (3"-2.5" dia) 10 ft each	36	No	120	4,320
iv	Kana (Pattar) 9'x20'	2	No	1500	3,000
v	Plastic Sheet	1	No	540	540
vi	Trauha (6'x12')	6	No	310	1,860
vii	Iron Girder (19')	1	No	5000	5,000
viii	Chaff	6	Mounds	300	1,800
Roofing Material Cost					21,520
Grand Total Cost					54,000



SINDH RURAL SUPPORT ORGANIZATION

Emergency Relief & Early Recovery BAHAAAL Project

MATERIAL COST OF TRANSITIONAL SHELTER

01 Room (18'x14.5') (Packa bricks with mud plaster) 2nd Standard

S.#	Item	Quantity	Unit	Unit Rate (Rs.)	Amount
					(Rs.)
1- Plinth Level					
i	Bricks (Packa)	2368	Per 1000	4500	10,656
Total (Plinth Level)					10,656
2- Super Structure					
i	Bricks (Packa)	5258	Per 1000	4500	23,661
ii	Soil for mud plastering	4	Per trip	750	3,000
Total Super Structure					26,661
3-Roofing Material					
i	Wooden Door (3.5'x7')	1	No	3000	3,000
ii	Wooden Window (3'x4')	1	No	2113	2,113
iii	Wooden bamboos (3"-2.5"dia) 10 ft each	36	No	110	3,960
iv	Kana (Pattar) 9'x20'	2	No	1600	3,200
v	Plastic Sheet	1	No	550	550
vi	Trauha (6'x12')	6	No	410	2,460
vii	Iron Girder (19')	1	No	5000	5,000
viii	Chaff	6	Mounds	400	2,400
Roofing Material Cost					22,683
Grand Total Cost					60,000



SINDH RURAL SUPPORT ORGANIZATION

Emergency Relief & Early Recovery BAHAAAL Project

MATERIAL COST OF TRANSITIONAL SHELTER

01 Room (18'x14.5') (Packa bricks, mud and cement) 3rd standard

S.#	Item	Quantity	Unit	Unit Rate (Rs.)	Amount
					(Rs.)
1- Plinth Level					
i	Bricks (Packa)	2368	Per 1000	5500	13,024
Total (Plinth Level)					13,024
2- Super Structure					
i	Bricks (Packa)	5258	Per 1000	5500	28,919
ii	Hill sand for plastering	2	Per trip	2593	5,187
iii	Cement for plastering	10	Bags	450	4,500
Total Super Structure					38,606
3-Roofing Material					
i	Wooden Door (3.5'x7')	1	No	3000	3,000
ii	Wooden Window (3'x4')	1	No	2000	2,000
iii	Wooden bamboos (3"-2.5"dia) 10 ft each	36	No	110	3,960
iv	Kana (Pattar) 9'x20'	2	No	1600	3,200
v	Plastic Sheet	1	No	550	550
vi	Trauha (6'x12')	6	No	410	2,460
vii	Iron Girder (19')	1	No	5000	5,000
viii	Chaff	3	Mounds	400	1,200
Roofing Material Cost					21,370
Grand Total Cost					73,000