

# Sixteenth Flood Response Newsletter

## HF-DFID-IOM Shelter Demo Project

### Build Back Safer with Vernacular Methodologies

The work of extensive research on vernacular methodologies and construction of demonstration/ model units in 35 tehsils in Lower Sindh was undertaken with support from DFID and IOM from October to December 2011.

It is among rare occasions that detailed research on the behavior of rain and floodwaters on traditional building forms and methods has been undertaken in the country. Since Heritage Foundation believes in the involvement of the youth in both heritage safeguarding and humanitarian aid efforts, teams of student volunteers of architecture, mainly from the Department of Architecture, Faculty of Visual Arts, University of Karachi were inducted into the programme. Some students of Architecture belonging to the Mehran University, Jamshoro, also joined the group of volunteers.

The student volunteers were divided in to two groups, each group consisting of several teams. The teams in one group were led by Ar. Zulfiqar Noor which concentrated on carrying out surveys in 35 talukas/ tehsils, while the teams of the second group were led by Project Manager Humanitarian aid Works, Naheem Shah, that was engaged in conducting construction workshops and helping in building 2 model rehabilitated units or 1 complete unit in all 35 tehsils/talukas of 8 priority districts.

Both groups carried out commendable work as both had to reach out to far off and dispersed locations. Among the groups were 5 young women students of Architecture, who also braved the tough conditions in the interior of Sindh. The field surveys lead to developing detailed interventions in order to construct improved adobe/mud and reed walls.

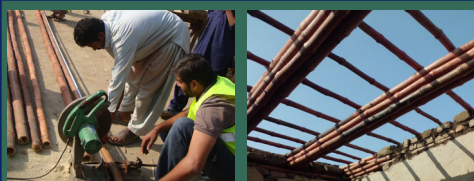
The survey of construction techniques in Sindh, on one hand provided information regarding the strength and weaknesses of vernacular structures, on the other proved the unsuitability of RSJ steel girders and poorly constructed burnt brick walls for Sindh's rural areas.

The construction teams' workshops and model units in remote localities demonstrated an understanding of the value of well built mud walls. The use of lime as a valuable weather resistant material for external rendering and roof finish as well as the value of sustainable, green KaravanRoof was propagated. The KaravanRoof could be tested immediately by 15 family members as a safe haven roof for refuge during floods.

A great deal of valuable research work and the requirements for better construction methodologies using vernacular construction techniques has been carried out by Architect Yasmeen Lari in consultation with Engr. Amin Tariq.

The research findings and Disaster Risk Reduction or DRR-driven recommendations have been included in Chapter 4, from page 4.2 to 4.13, of final report prepared for DFID and IOM. In addition a short version of the report is being published for large scale dissemination.

The list of beneficiaries in 35 talukas is placed on our website for ready reference.



Student Volunteer helping in the prefabrication of KaravanRoof.

View showing placement of bamboo purlins on joists.



Earthen platform as cultural node, to provide safety of livestock feed.



Raised platform for the safety of drinking water.



Demonstration of vernacular building methodologies at a Stakeholders' workshop.



Project director accompanied by IOM visitor, reviewing completed unit with KaravanRoof and Lime-mud rendering.



Stakeholders' workshop is being attended by a large number of women.



Tamping the soil in order to get a firm base.

Woman participating in the construction of her house, mixing of lime in a lime pit.



Participation of local community in the rehabilitation process.



Construction of mud toe to provide protection to the base of the wall.



Proud owner of rehabilitated sustainable shelter, decorated it herself.



**LIST OF BENEFICIARIES FOR HF-DFID-IOM SHELTER DEMO PROJECT**

<b><u>S.No.</u></b>	<b><u>District</u></b>	<b><u>Tehsil</u></b>	<b><u>Village</u></b>	<b><u>Household name</u></b>	<b><u>Contact No.</u></b>
	<b><u>Tando Allahyar</u></b>				
01		Tando Allahyar	Mouk Sharif	Lelo	
02				Ramzan	
03		Jhando murree	Meing war	Rana	0344-3544505
04				Sarah	0344-3544505
05		Chamber	Sheesh Mahal	Qasim	0301-3620063
06				Ghulam Mohammad	0343-3341229
	<b><u>Mirpur Khas</u></b>				
07		Mirpur khas	Bhojomal	Tulsi	0315-2825339
08				Radha	0347-2332125
09		Sindhri	Haji Pir Bukhsh Jarwua	Kewal	0342-3265487
10				Lelo	0347-3757802
11		Goth Ghulam Mohammad	Goth Shameer Hotel	Mohammad Ali	0300-3557825
12				Mehboob Ali	0300-3557825
13		Digri	Pak Mori	Chaksi	0332-0366204
14				Hershan Bewal	0332-0366204
15		Jhudo	Goth Sher Mohammad	Mehboob Ali	0300-3326186
16				Pirgo	0304-6271549
17		Hussain Baksh Murree	Goth Pir Aftab	Lachman	0345-3442681
18				Mother of Lachman	0345-3442681
	<b><u>Tando Mohd. Khan</u></b>				
19		Tando Ghulam Haider	Jarro Babber	Shaukat	0331-2949088
20				Ghulam Shenshah	0331-2949088
21		Tando Mohammad Khan	Fazlabad	Hari Chand	0341-2674481
22				Bhemla	0345-3426599
23		Bhulri Kareem Shah	Ghafoor Maksi	Channu	0301-3674249
24				Ali Gul	0301-3674249
	<b><u>Sanghar</u></b>				
25		Sanghar	Dost Mohammad Hayat Murree	Pappu	0331-3328395
26				Khoru	0306-3594997
27		Sinjhoru	Goth Syed Noor shah	Bhag chand	0300-3053845
28				Bhag chand's mother	
29		Jam Nawaz Ali	Goth Haji mubarak	Phelaaj	0314-2268212
30				Jani s/o Konho	0343-3531620
31		Tando Adam	Gori Town	Qurbaan	0305-3253998
32				Maqbool	0313-8270410
33		Shahdadpur	Sabadiary	Fatima w/o Ghulam Rassol	0302-3925758
34				Amina w/o Tayab	0302-3925758
35		Khipro	Walayat Colony	Hamraj s/o Arjant	0301-3220788
36				Rana s/o Jag Mal	0345-3701586
	<b><u>Benazirabad</u></b>				
37		Duor	Tharo Mal	Faiz s/o Yousif	0303-3410357
38				Badal s/o Muhammad Paryal	0307-21277767
39		Benazir Shaheed	Pir Makhdoom	Karim Bux s/o Noor Bux	0307-3227295
40				Saidal s/o Majnoon	0303-32737767
41		Sakrand	Ghulam Rasool Raho	Mansoo s/o Kumbhal	0300-3227605
42				Bacho Mal s/o Saboo Mal	0300-3227605
43		Qazi Ahmed	Rahimabad	M-Saleem s/o M-Hayat	0308-3340996
44				Molvi M-Akram s/o M-Sahrif	0300-3229381
	<b><u>Badin</u></b>				
45		Fazil raho	Chak 11	Jaman s/o Mooso	0346-2479159
46				M-Hasan s/o Ghulam	0347-3647193
47		Badin	Husain Mangwar	Deedar Ali s/o Jumbo	0333-2536369
48				Anwar Ali s/o Ayoub	0334-3552578
49		Tando Bago	Novaabad	Hareesh s/o Rao Kumar	
50				Shambol s/o Darhon	
51		Talhar	Photo Machi	M-Zaman s/o M-Yousif	0342-3414221
52				Abdul Sattar s/o Zafar	0342-3414221
53		Matli	Noor Muhammad Kohar	Wie s/o Toto	0331-3342148
54				Akram Ali s/o Aldalo	0331-3342148
	<b><u>Umerkot</u></b>				
55		Samaro	Rano Mali	Parkho s/o Nagjee	0301-3491507
56				Arshan Kumar s/o Bago	
57		Kunri	Shoke mal Mari Stop	Kanjee s/o Kirshan	0308-3259722
58				Alam s/o Chandar	0302-3625345
59		Umerkot	Qasimabad	Ramjee s/o Wala	0344-4921774
60				Narian s/o Wala	
61		Pathero	Kamil Chanhio	Rab dino s/o Ramzan	
62				Sohrab s/o Rab nawaz	0331-3466423
	<b><u>Tharpakar</u></b>				
63		Mithi	Kolhi Colony	Najoo s/o Walji	0336-3103669
64				Mochand s/o Asero	0336-3103669
65		Diplo	Nanji Dhani	Kanjee s/o Kusab	3322082048
66				Basar s/o Ksab	3322082048
67		Nagar Parkar	Hero Javinda	Pero so/ Imraj	3322082048
68				Demon w/o Gule man	3322082048
69		Chachro	Chachro	Noor Mohd. s/o Gul-Mohd.	3321314880
70				Muhammad Somar s/o Gul	3312867635