Evaluation of One Room Shelter Programme for the 2011 floods response in South Sindh, Pakistan

Shelter Centre for IOM Mission in Pakistan

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i. Acknowledgments

An evaluation such as this is always a process which relies completely on the time, good will, honesty and candour of many people. Without such people, it would be impossible to develop a meaningful insight and reach conclusions and recommendations based upon fact and of value to the learning process. This has been especially true for evaluation.

Our main thanks go to the beneficiaries from the villages that we visited in Sindh, who left their work and spent many hours with the evaluation team.

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AIDMI	All India Disaster Mitigation Institute
BDO	Badin Development Organisation
BHH	Beneficiary Household
CS	Case study
DEC	Disaster Emergencies Committee
DFID	Department for International Development
DipECHO	Disaster Preparedness Programme of the European Commission
DRR	Disaster Risk Reduction
ECHO	European Commission Humanitarian Office
EQs	Evaluation Questions
FGD	Focus Group Discussion
GoP	Government of Pakistan
GSC	Global Shelter Cluster
IASC	Inter-Agency Standing Committee
IFRC	International Federation of the Red Cross
IOM	International Organisation of Migration
IP	Implementing Partner
ISDR	International Strategy for Disaster Reduction
ITDG	Intermediate Technology Development Group (now Practical Action)
MEAL	Monitoring, Evaluation, Accountability and Learning
NDMA	National Disaster Management Agency
NFI	Non-food Item
ORS	One Room Shelter
PDMA	Provincial Disaster Management Agency
PKR	Pakistani Rupee
PRCS	Pakistan Red Crescent Society
SAG	Strategic Advisory Group
SDC/HA	Swiss Agency for Development and Cooperation/Humanitarian Aid
SOF	Strategic Operations Framework
SOW	Scope of Works
USD	United States Dollar
WMO	World Metrological Organisation
UC	Union Council
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs

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vi. Executive summary

Overall, the One Room Shelter (ORS) programme in 2011 of the IOM Mission in Pakistan was a highly successful response to the floods in south Sindh. It was achieved through learning lessons from past responses and partners, combined with inclusive leadership that enabled each stakeholder to play to their strengths.

The floods that affect the Sindh province of Pakistan created havoc across the region, affecting over 5.3 million people with 1.5 million homes damaged. In response to this, IOM ran a shelter programme that evolved from its programming in response to the 2010 floods and was set against a clear and common vision, developed between donors, implementers and government. The programme built 22,900 ORSs, with DRR features including lime plaster and raised plinths, with bamboo beams and ring beams.

As part of its learning, IOM commissioned Shelter Centre to undertake an evaluation of the programme. The field component of the evaluation took place in late October 2014, involving a team of six people, visiting villages in all six of the districts in which the IOM programme was implemented. Data was gathered through a series of focus group discussions and individual case study interviews, complemented by key informant interviews with IOM staff and others, including donors. This process was complemented by a review of literature and documentation.

The concern nationally at the time of coverage versus the overall resources available was confronted directly, with the minimal grant level set so that a shelter could still be completed by all beneficiaries, whatever their economic status. The programme has the potential to become a catalyst for change in communities, creating good will and opportunities for sustainable and scalable DRR. What emerged, therefore, was a low unit cost approach that reached as many people as possible, optimising coverage within the resources available.

The programme was fundamentally a cash transfer programme with a training component, predominantly for land tenants, and all other activities supported this efficient approach to large scale programming. The level of community engaging was pivotal in ensuring success, as was the use of peer pressure to ensure timely construction. The funds were split into three tranches and beneficiaries would receive the subsequent tranche once all the works required for the previous tranche had been completed by the whole community. This also made for a manageable process.

The evaluation determined that success came from the equal weight given to the process of enabling and ensuring construction as to the technical details of construction, which were adapted to the context and scale. The programme was also championed by a local organisation, the Heritage Foundation, which developed technical and community implementation processes, as well as advocating successfully for the acceptance of the ORS concept by Government. The programme was implemented by twenty six local partners that arose from local civil society.

The evaluation led to the conclusion that the successful programme met its objectives in general and was universally appreciated by beneficiaries, despite there being a large labour commitment required from beneficiaries, especially from women who are the traditional builders in southern Sindh.

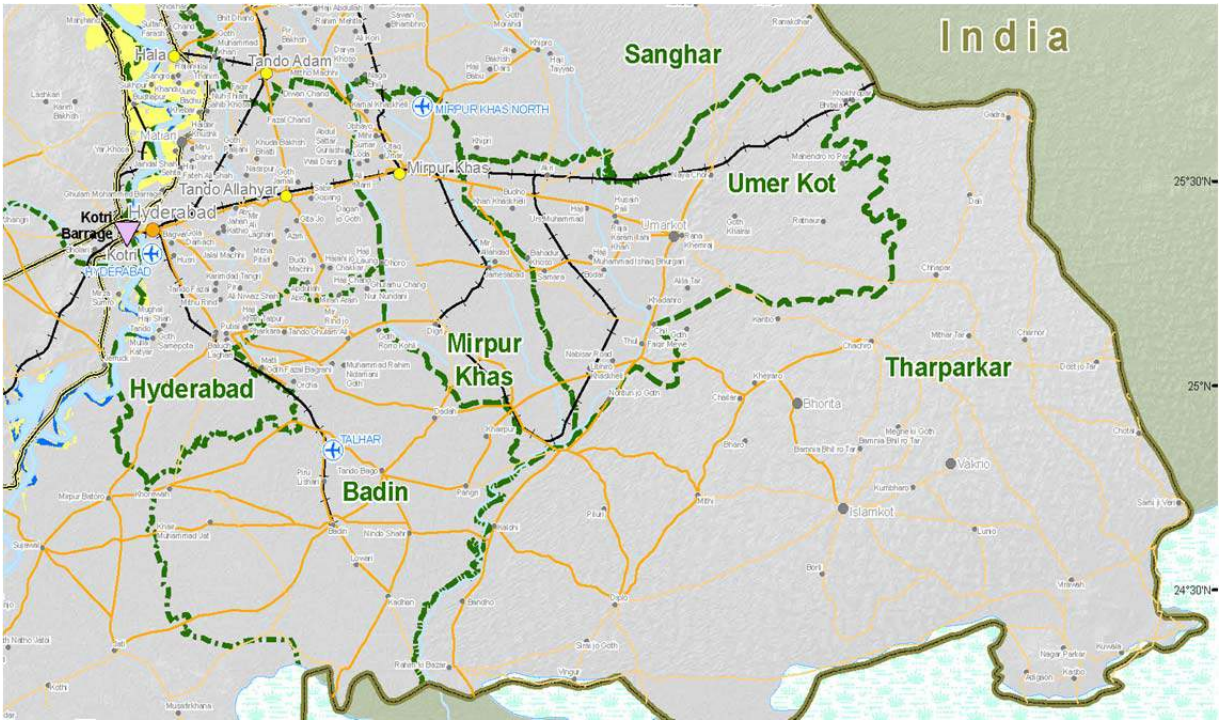
Strategic recommendations were threefold. First, there is the opportunity for ORS to become the recognised common national approach to flood response as, since 2010, past flood shelter responses have been considered individually, even though they often overlapped in time, if not always in specific geographic areas. Secondly, there is a further opportunity to use the good will that has been generated by the programme to develop ORS with communities into an integrated multi-sector settlement programme, combining WASH and food security elements with settlement planning and communal service infrastructure investments, such as drainage reservoirs or channels. Thirdly, with donor support, on-going implementation of ORS programming might be

undertaken, even with low-level activity, between subsequent crisis responses, driven by a wide ranging community-led multi-hazard risk assessment.

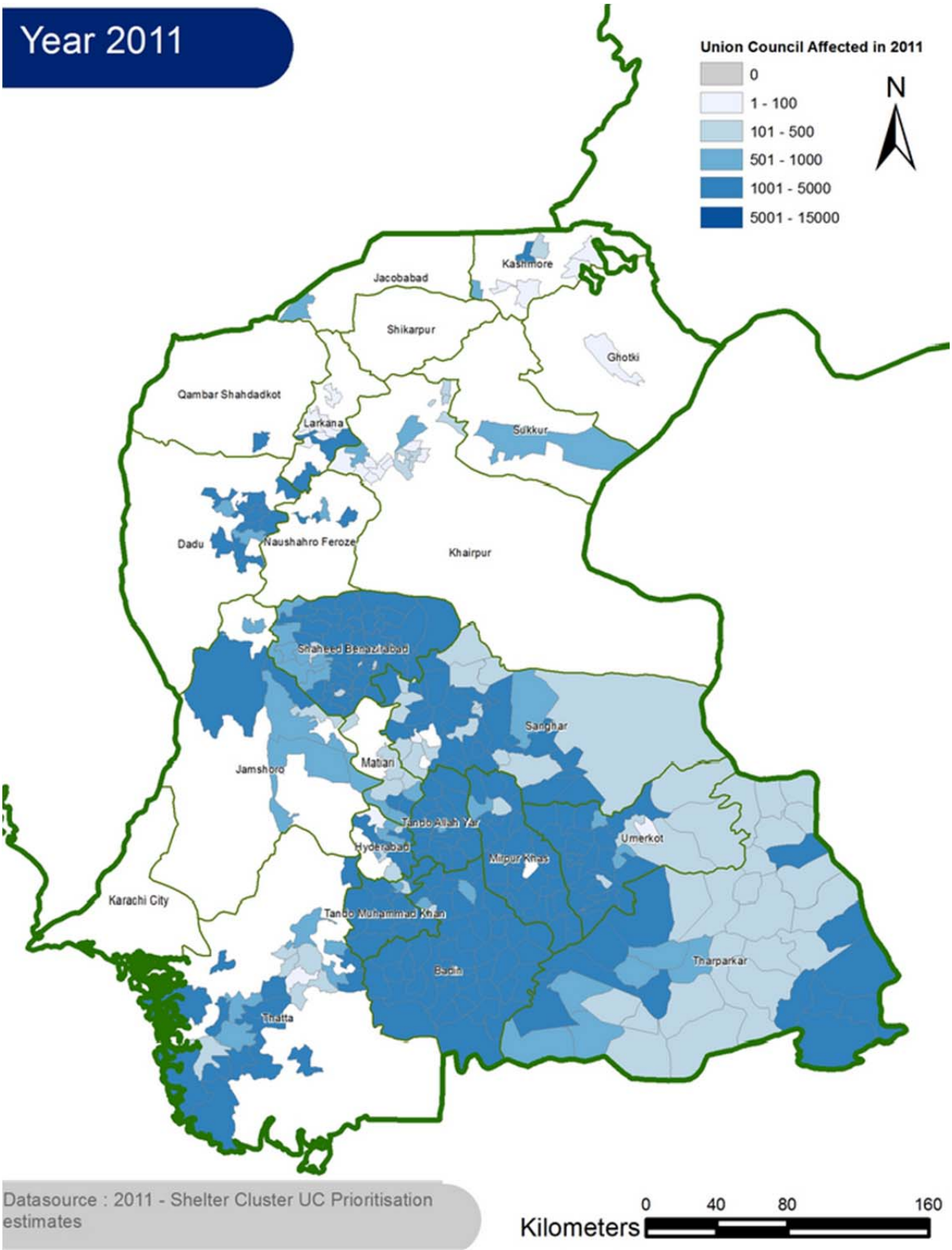
Process recommendations responded to the more and the less successful components of ORS, in addition to proposing the development of a process manual and tool kit, to complement the technical manuals and support replication and on-going learning.

Technical recommendations were also threefold. First, an urgent review of ORS maintenance at community level is needed, as all of the achievements of the ORS programme will be lost unless maintenance is undertaken that retains the DRR features of the shelters. Secondly, a similar review is needed of replication at community level, as the significant opportunity offered by ORS, where new shelters unsupported by response programmes are built using ORS principles, is currently wholly missed. Lastly, the continuation of technical studies will be invaluable to understanding how to achieve the construction of shelters at scale, as well as how to increase confidence over time in new materials and techniques.

Finally, the programme is replicable both nationally and globally; however currently there is no single commonly-accessible repository for the detail, data, information and learning of the programme.



Map of the affected area in Sindh (ReliefWeb, accessed December 2014)



Most affected Union Council (Pakistan Shelter Cluster 2011)

1 Introduction

The floods of late 2011 devastated parts of the Sindh Province of Pakistan, it affected 5.3 million people and caused the loss of over 1.5 million shelters/homes (Shelterprojects, 2014).

The Early Recovery Plan of January 2012, developed by the Government of Pakistan and the United Nations, identified Shelter as a key response area. A large scale response was required. Within the response community this fell to IOM. They learnt from the large programme that ran in response to the 2010 floods and developed with the Heritage Foundation a programme using lime stabilisation to construct over 22,000 shelters for the most vulnerable in the flood affected communities.

The repeating nature of the floods so far, and the likelihood of further floods in the future, required a 'build back better' approach combined with DRR. The scale of need therefore required a process whereby the new homes would incorporate an element of flood resistance into the design and the programme.

The scale approach, the funding available and lessons from the 2010 response led to a pragmatic agreement that the programme should build one room shelters (termed ORS) that fitted with the local circumstances, where most village housing is single room anyway. This was adopted despite the agreed 2004 definition that a house in Pakistan should consist of 2 rooms, a veranda and access to a bathroom. The balance necessary in such constrained funding circumstances, between the size of grant and the number of grants, or families assisted, is a difficult one to achieve and IOM by looking at the process as both the delivery of shelter and a catalyst for change managed this as well as is reasonable to expect.

The technical approach was supported by a process of cash transfers and training to enable self-build by beneficiaries. This process was facilitated by twenty six locally based implementing partners, who in turn worked through a focal person, who was elected by the beneficiaries themselves. The focal person received a payment on behalf of all beneficiary families in the affected village, once all the construction was completed. The three tranches of money were transferred to the focal person for distribution by him to beneficiaries. A peer pressure process was also used, to ensure that all building were completed and quality levels were maintained, whereby the next tranche was only made available when all the buildings that each focal person was responsible for were completed for the previous phase. The phases were the plinth/foundation, walls and roof.

Shelter Centre was commissioned by IOM to evaluate the programme undertaken, to ensure it has reached its objectives and to learn lessons that arose from the process. The methodology is described in Section 2.2. The overall approach took the form of: a desk phase after inception, comprising meetings, a literature and document review and key informant interviews of donors, implementing partners, shelter experts and IOM staff, as well as methodological development of the field component; a field phase, involving both female and male Focus Group Discussions (FGDs), Case Studies (CSs) and further key informant interviews; and a synthesis phase, when further reviews and interviews were undertaken whilst field data was collated and analysed and the report drafted.

As part of the Scope of Works (SoW) defined by IOM, Shelter Centre was asked to answer eight specific Evaluation Questions (EQs). These, as well as both strategic and technical indicators, are used to develop both conclusions and recommendations. The success or failure of the technical indicators is used as proxy indicators for the process involved in delivering the programme. In addition to this evaluation IOM have commissioned other reports that look at specific aspects of the process. These are referenced within the report.

One opportunity presented by this evaluation is to support the replication of this process in Pakistan and in other environments globally, such as the Philippines.

2

Scope, objectives and methodology

The Scope of Works (SoW, 2.1) for the evaluation states that "The main purpose of the evaluation is to provide insight on the effectiveness, efficiency and appropriateness of the shelter program of IOM against its core objectives". The core objectives, as confirmed with IOM (Perscom, Moita/Mubarak/Pereira, 2014), are those defined by the 2011 Strategic Operational Framework (SOF) developed by the IASC Shelter Cluster Pakistan. The SOF additionally outlined indicators for shelter programmes that this evaluation therefore uses in order to determine the effectiveness, efficiency and appropriateness of the IOM ORS programme.

The SoW set out eight additional questions (2.2.2), articulating the objectives of the evaluation for IOM in the context of the 2011 SOF (2.2.1).

Further objectives pertinent to the evaluation were identified from lessons learnt by DFID (2.2.3), which offered a verification of the objectives set out in the SOF and by IOM.

The evaluation methodology (2.4) was determined therefore by the Shelter Cluster SOF objectives (2.2.1) and IOM objectives (2.2.2), with verification through lessons learnt by DFID (2.2.3).

It should be noted that a series of processes that were vital to success, especially to the ability to operate at scale, supported and enabled the technical processes. The programme is notable for its ability to marry the two into a single cohesive whole with a single deliverable vision.

2.1 Scope

This evaluation was undertaken by the International NGO Shelter Centre for the International Organisation for Migration (IOM) Mission in Pakistan, 15th September to 14th December 2014. Shelter Centre engaged an evaluation team in Pakistan to undertake the field survey component, 19th October to 30th October 2014, comprising two women and two men who were experts in shelter and assessment.

The evaluation was of the response by IOM Pakistan to the 2011 floods, supporting the construction of 22,900 units in South Sindh. The response followed an approach developed for durable shelter solutions using vernacular construction methodologies, building upon a cash and transfer self-build process for working with National NGO Implementing Partners (IPs) and Focal Points (FPs) elected within each beneficiary village.

A further study is being undertaken by Arup International Development. The first phase was published in July 2014, focussing upon "how the design of shelter using vernacular forms of construction can improve the flood-resilience of communities to small-medium scale floods events, such as occurred in 2011 and 2012" (Ove Arup, DFID and IOM, 2014).

2.2 Objectives

This evaluation uses three separate sets of objectives as the basis to provide insight on the effectiveness, efficiency and appropriateness of the ORS shelter programme of IOM, which is the purpose defined by IOM in the SoW for the evaluation.

Three sets of objectives were used for three main reasons: first, the SoW required that the primary evaluation objectives were those of the IASC Pakistan Shelter Cluster, as set out in its SOF for 2011, using both strategic and technical indicators to determine success (2.2.1); secondly, the SoW also required that eight Evaluation Questions (EQs) be used, unrelated to the Cluster SOF (2.2.2); and thirdly, as neither of the first two objectives consider the policy level, a further set of objectives were adopted, taken from a commentary by DFID on the ORS process (2.2.3).

In addition, the three sets of objectives are complementary, resulting in an holistic review: the first consider strategic and technical factors; the second, process components relating to implementation; and the third how the ORS programme operates at the policy level. Furthermore, the use of three sets of objectives increases the rigour of the evaluation, as they originate from three bodies, offering three different perspectives.

The success of the ORS has therefore been evaluated against meeting all three sets of objectives.

Photo 1, *Pitched roof ORS Shelter in Fotojogi*

2.2.1 Shelter Cluster Pakistan objectives

As set out in the SoW, the primary evaluation objectives were defined by the IASC Pakistan Shelter Cluster 2011 SOF (2.1). Valuable to understanding the 2011 SOF objectives were the 2010 objectives for ORS (2.1.1). The differences 2011 between the 2010 and 2011 objectives for ORS (2.1.2) illustrate lessons learnt. The 2011 SOF presented strategic objectives for shelter, including ORS (2.1.3), as well as technical guidance for ORS (2.1.4) and further guidance for training, targeting and messaging (2.1.5).

The 2010 objectives for ORS, informing the 2011 objectives

The 2011 ORS programme was developed from its initial adoption in the 2010 flood response, which offers context to its description in the 2011 SOF. In the Cluster's 'Compendium of Key Documents' (IOM, 2013), it states:

> "For those families that may return to original location the recommended Shelter Response is to support the beneficiaries in (re)building one habitable room, the One Room Shelter. Using social mobilization and mass communications strategies, beneficiaries and their communities will be mobilized to directly participate in the construction process. This can involve beneficiaries building the walls from available material and roofing material and/or doors and/or windows, and/or skilled labour being provided by implementing partners to augment beneficiary efforts. Accommodations should be made for vulnerable people who require additional assistance."

The Compendium continues:

> "ONE ROOM SHELTER is a more durable solution built at place of origin with indigenous materials and techniques. The envisaged lifespan of the One Room Shelter is 3 to 5 years, which can be extended upon upgrading of the shelter."

The strategic 2011 objectives for shelter, including ORS

The strategic objective defined by the Cluster in the 2011 SOF was:

> "To provide low cost shelter support to families in the notified districts in Sindh and Balochistan whose house has been become 'unlivable' [*sic*], in a way that is more resilient to future natural disasters before September 2012."

The strategic outcome defined by the Cluster in the 2011 SOF was:

> "The most vulnerable communities in Sindh and Balochistan affected by the 2011 flooding have access to shelter / NFI assistance and protection, with an emphasis on reinforcing durable solutions."

The strategic objective and outcomes were further elaborated using an approach, principles and indicators, against which this evaluation will consider the IOM ORS programme. The Shelter Cluster approach was defined as to:

- "Focus on targeted distribution to meet emergency relief needs
- Focus on early recovery self-recovery through basic shelter support and a network or district level training and outreach centres…."

The Shelter Cluster principles were defined as to:

- "Establish need for emergency and Early Recovery shelter solutions based on level of damage, vulnerability, community resilience, hazard risk, and number of households affected

- Recommended Shelter support packages and NFI assistance packages (e.g, 'household kits, rubble removal kits) or early recovery shelter standard should be adhered to by the implementing agencies
- Maximise coverage
- Promote incremental upgrade over redesign, maximizing the use of salvaged building materials. Materials distributed in the emergency will have maximum utility during recovery.
- Support market-led/owner-driven recovery initiatives through self-help support at community level
- Targeting the most vulnerable women, men, boys and girls, independent of gender, ethnicity and political allegiance and location. Prioritize hard to reach areas and families in temporary settlements.
- Work with Gov't and local authorities to inform households consistently and coherently through mass media including, for example:
- Technical advice (e.g practical and affordable DRR construction techniques)
- Land and property rights
- Housing Safety
- Pakistan Card Compensation
- Environment"

Differences between the 2010 and 2011 objectives for ORS

The 2010 ORS concept and objectives were interpreted in a variety of ways in the 2010 response and many lessons were learned. The variety of shelter responses included some that were perceived by IOM to undermine the approach of using indigenous materials and construction techniques. Subsequent ORS responses and response strategies, including that by IOM in 2011, further developed and clarified the approach, supported by the development and dissemination of technical guidance and other supporting materials.

In addition, IOM reported to the evaluation team that in 2011, the NDMA Chairman stated that the shelter response should focus on the construction of two room houses, similar to the model villages that were built during the 2010 response, which is the reason why 2011 discussions included two room shelters.

Consequently, the SOF for 2011 incorporated this by promoting shelters that were upgradable/extendable, from one to two rooms:

> "Contrary to the 2010 One Room Shelter strategy the 2011 strategy is aimed at the provision of "low cost shelter" support. The low cost shelter approach foresees construction of a basic shelter with possible 'early development' provisions like future extensions, such as compartmentalization (2 rooms) or sanitation facilities. The houses will be reconstructed through self- recovery. …."

This statement was supported by a footnote:

> "It is recognised that some organisations will wish to build one room shelters at the estimated cost of US $800 to 1200 or more. Due to limited resources available, and potential inequities arising, this strategy does not actively promote such shelters."

These two statements became the basis to the detailed interpretation by IOM of the 2011 SOF with respect to their revised ORS programming. IOM understood that the 2010 strategy did not promote high cost shelters, but rather that the high cost of some solutions adopted in 2010 resulted in the 2011 strategy advocating for lower cost solutions, whilst recognising that guidance in terms of cost was not clearly documented. The understanding was that the statements did not advocate for two-room over one-room shelters.

2011 Pakistan Shelter Cluster technical guidance for ORS

In contrast to the 2010 ORS strategy, the 2011 Shelter Cluster 2011 SOF advocated low-cost shelter support, with provisions made for "early development" such as extensions, internal subdivision and sanitation facilities. For families whose houses were damaged but were repairable, material support was offered to a maximum of USD 200, supporting repairs and the addition of DRR elements. For families whose houses were destroyed or damaged beyond repair, the following standards were set.

- Vulnerability, offering additional support through cash for work and food for work interventions.
- Floor area, which was linked to the standards, indicators and guidance notes in the Sphere Minimum Standards in Humanitarian Response.
- Cost, setting a maximum for material support or cash of USD 375 per shelter, whilst noting that the 2010 response had proven sufficiently that USD 300 of material support was the minimum amount to catalyse self-recovery, with beneficiaries contributing through no-cost or salvaged materials, labour and limited amounts of cash.
- Disaster Risk Reduction (DRR), described as achieving safety through the inclusion of a minimum number of specified DRR elements, which were further described in Annex B of the SOF.

In addition to the standards above, the 2011 SOF advocated for agencies coordinating through the Shelter Cluster to include the following in their interventions.

- "Linking the emergency and the early recovery phase by maximizing the use of materials distributed in the emergency phase. For instance bamboo and plastic sheeting can be used in the roof constructions or flooring.
- The shelter should allow the communities to adapt their house to their immediate or future needs like extensions, compartmentalization (2 rooms), addition of sanitation facilities, kitchens etc.
- The shelters should be culturally acceptable (compartmentalization).
- Vernacular construction techniques are recommended and are considered an important contribution to the DRR approach, where traditional houses are reconstructed and maintained by communities that are familiar with those techniques and have access to the materials."

2011 Pakistan Shelter Cluster guidance for training, targeting and messaging

For training, the 2011 SOF recommended the following.

- "In the addition to material support, the shelter cluster agencies will provide shelter construction training to the beneficiaries and masons to improve the safety of the shelter. The trainings will be practical and 'on site'
- The trainings will be coordinated on a district level and where feasible district training centres are considered.
- All trainings (location and content) will be coordinated by the shelter cluster. The technical trainings will have a standardized curriculum in local languages.
- Traditionally, women are involved in plastering the walls of their homes and will be actively involved in the training.
- Agencies should consider reaching out by providing training to families or communities that do not receive direct shelter support or are self-recovering."

For targeting, the 2011 SOF recommended the following.

- "According to the Early Recovery Framework the shelter cluster will during the 9 months recovery phase till 18th September 2012 support the restoration / reconstruction of approximately 306,827 shelters (this equals 40% of the families whose house has been partially damaged or destroyed).
- The Shelter Cluster will be targeting the most vulnerable women, girls, boys and men whose house has been damaged or destroyed by following a participatory, community based approach. Such an approach will secure targeting independent of ethnicity or political allegiance or location.
- The cluster will prioritize the families: (targeting criteria defined by NDMA and the Protection Cluster
- Whose house has been damaged or destroyed
- Who have no salvaged materials and no means to provide construction materials and/or labour,
- Who may not return to their place of origin and face extended displacement for at least another 6 months,
- Whose lives are endangered by weather conditions.

Combined with at least one of the following criteria:

  - Female headed households,
  - Child headed households,
  - Older person headed households,
  - Households headed by person with disabilities (physical, intellectual, sensory),
  - Households headed by persons with a chronic disease,
  - Pakistani Nationals without Identity Card.

- The cluster will encourage equal representation of women and men on committees involved in the different components of project activities - targeting criteria identification, beneficiary selection, activity planning, etc.
- The training and outreach components of the shelter cluster intervention will be targeting all shelter agencies, masons / skilled construction workers and beneficiaries."

For messaging and outreach, the 2011 SOF recommended the following.

- "To provide a minimum and cost effective support to the ones that do not receive direct support otherwise, and to strengthen the capacity of the ones involved in the self-recovery process, the Shelter Cluster will work with the Government to spread key messages consistently and coherently through formal and informal communication channels.
- These messages include:
  - Technical shelter construction advice (e.g. practical and affordable DRR construction techniques),
  - Basic land and property rights,
  - Pakistan Card Compensation,
  - Environment impact and sustainability,
  - "Aid is free" messages.

Where possible messages from other sectors like health and WASH will be disseminated through the same channels in an integrated approach.

- Different communication methodologies will be selected dependent upon the type of message and the most effective means of dissemination. Methods include:
    - Radio,
    - Newspaper,
    - Posters,
    - Flyers,
    - Booklets and other print media.

Information materials will be developed based on target users' involvement and feedback with strong emphasis of visual communication.

- Organizations will include a feedback component in their interventions, so that messaging can be adapted to meet evolving needs and to develop and adapt messages in response to field issues and frequently asked questions."

Photo 2, *Chora-style ORS using traditional shelter design, in the village of Newabad Chilhar*

2.2.2 Evaluation questions provided by IOM

In the SoW, IOM additionally set out eight main Evaluation Questions (EQs), in order to elaborate upon meeting these objectives (2.2.1). These questions were confirmed during the inception phase as reflecting IOM's main objectives for the evaluation, with respect to key areas of programme action and impact. They were used as the basis for the development of the methodology (2.3), including the structure of key informant interviews, field survey Focus Group Discussion (FGDs) and Case Studies (CSs).

"[1.] Impact of the cash approach
- Impact of the grant on families' daily economy
- Savings and its use (Case Studies)

[2.] Livelihoods demands vs Program implementation requirements
- Time usage and division limitation and success

[3.] Local procurement (use of local markets)
- Challenges and solutions for beneficiaries and community
- Material availability and quality

[4.] Training satisfaction and effectiveness
- Knowledge transfer process
- Mentoring evaluation impact
- Construction practices changes
- Safety perceptions by BHH

[5.] Disaster Risk Reduction Impact
- Replication within communities (Case Studies)
- Change in attitudes and practices on shelter reconstruction

[6.] Land and Property
- Restrictions to shelter reconstruction (Case Studies)
- Forced evictions and shelter abandonment (Case Studies)

[7.] Beneficiaries satisfaction
- With the overall program
- With cash grant approach
- Information dissemination and feedback loops
    - complaints mechanism usage and effectiveness
    - feedback and response support by IP
    - feedback and response support by IOM

[8.] Gender Mainstreaming
- Women contribution to the program and specific impacts on gender equity"

2.2.3 DFID lessons learnt informing the evaluation

The 2013 publication by IOM 'Building Back Stronger' included responses to a question and answer survey which offered further objectives pertinent to the evaluation in the form of lessons learnt by DFID 2010-2012, which offered a verification of the objectives set out in the SOF (2.1) and by IOM (2.2).

The question asked by the IOM interviewer was "Can we learn lessons from this programme that can inform disaster response for shelter at a policy level?" The response from DFID, from Magnus Wolf Murray, the Technical Advisor who supported both the evolution and implementation of the 2011 IOM ORS programme from October 2010 until its conclusion, was:

> "Absolutely! But ideally policy level recommendations should be informed by an external and independent source. Hence the shelter research that we have supported. There are several key recommendations for policy level advocacy including:
>
> - Promoting environmentally sustainable construction material
> - Community ownership and transfer of cash and management to the beneficiaries
> - Work with the wider civil society organisations local to the area. It is these people (and NGOs) that will remember this programme, the key messages and principles and the training standards
> - Incorporate building knowledge and experience from the past that have proven to work well. Lime is the good example here. There is evidence globally of lime based structures standing thousands of years after construction
> - Recognise that the construction industry – and the vast majority of the aid industry – is stuck in outdated and inappropriate thinking regarding shelter, housing, community design and energy. Reflect on the type of reconstruction that has taken place since the 2010 floods"

2.3 Methodology

The overall evaluation approach (2.3.1) sets out how the eight questions in the SoW (2.2) were used to structure field FGDs and CSs

Strategic indicators (2.3.2) and technical indicators (2.3.3) defined in the 2011 SOF were used in this evaluation to determine the success of the IOM ORS programme in meeting SOF objectives and principles.

Field survey tools (2.3.4), comprising reviews, key informant interviews, personal observation, FGDs and CSs, were used to test these indicators, within the constraints present (2.3.5).

Both strategic and technical indicators were tested further through literature (3.) and document (4.) reviews, as an additional triangulation of the findings.

2.3.1 The overall evaluation approach

For the evaluation, three standard phases were followed: desk, field and synthesis. The inception period, involving a preliminary teleconference meeting with IOM Pakistan, started from when the Agreement between IOM and Shelter Centre came into force on 15th September 2014.

Inception was followed by a Desk Phase, which comprised: a comprehensive review of existing literature produced on the One Room Shelter approach; preliminary key informant interviews with key international stakeholders; the development of a survey methodology with the Pakistani evaluation team, including templates for field testing for Focus Group Discussions (FGDs) and Case Studies (CSs); and the agreement with IOM of a travel itinerary that ensured the locations listed in the SoW might be evaluated within the time available.

In the Field Phase, further semi-structured interviews were undertaken with key informants based in Pakistan, including with representatives of IOM, the Government of Pakistan (GoP), donors to the programmes, mandated coordination bodies, IOM technical advisors and programme IPs (see Appendix C, ''List of Key Informants").

In the Synthesis Phase, further follow-up semi-structured key informant interviews were undertaken with both Pakistan-based and international stakeholders, in order to further inform topics identified during the Desk and Field phases. Key informants included representatives of donors to the programmes and IOM staff subsequently reassigned to different duty stations (see Appendix C, ''List of Key Informants").

2.3.2 Strategic indicators

With reference to the objectives of the Pakistan Shelter Cluster 2011 SOF (2.2.1), the EQs from the SoW (2.2.2) and the lessons learnt by DFID (2.2.3), the strategic indicators for the success of the SOF approach and principles are presented below, highlighted in ***bold italics*** by the evaluation authors, beginning with additional principles also set out in the SOF referring specifically to early recovery.

> "Recovery support will run concurrently with emergency support. Support for recovery shelter will support those whose homes have been damaged or destroyed in the floods or rains and meet agreed vulnerability criteria.
>
> The Shelter cluster approach consists out of direct shelter reconstruction / rehabilitation support. In addition to that training and outreach will be provided to the direct beneficiaries and the ones that do not require direct shelter support or are self-recovering.
>
> To provide low cost shelter support to families in the notified districts in Sindh and Balochistan whose house has been become 'unlivable' [*sic*], in a way that is more resilient to future natural disasters before 18th September 2012 and monitor the needs and support related to the provision of durable solutions for displaced people."

"Outcomes	**Indicator**	**Activities**
Equal low cost shelter support provided to at least 40% of the Female and Male headed households whose house has become unlivable (damaged or destroyed), through a coordinated and targeted shelter response, based on strengthened self recovery capacity and raised awareness on safe construction techniques, DRR elements, and reduction of environmental impact.	- ***90% of the programs have applied the targeting criteria (damage + vulnerability)*** - ***50% of the shelters (re)constructed include 3 or more SC specified DRR elements (for instance raised flooring, strengthened walls, strong roof etc.)*** - ***100% of funded organizations start ER programs before end 2011 (where water has receded) and finish their activities by mid September 2012*** - ***90% of the supported households are more aware of safe and sustainable construction techniques / materials.***	- Provision of Basic Shelter support to vulnerable beneficiaries through provision of conditional cash, material and / or technical advice / training. - Improve technical skills and knowledge about DRR of masons and beneficiaries through sector coordinated, uniform practical 'on site' training and training materials. - The content and the locations of the trainings will be actively coordinated at district level - Cost effective outreach messaging.
Frequent monitoring of 50% of the remaining displaced population, especially in the 300 prioritized settlements, up to the stage where they have found durable solutions.	- ***At least 50% of the settlements are monitored monthly***	By collecting and disseminating quality information about the population in the temporary settlements and areas of return: - Support the development of a returns strategy - Accelerate the provision of durable solutions by the involved sectors"

2.3.3 Technical indicators

Annex B of the 2011 SOF, 'DRR in shelters', were used by evaluation as technical indicators for the success of the IOM ORS programme.

"**Foundations / plinth**

- In new construction, the walls should rest on firm soil; if the soil is loose, the mud layers should be tamped to ensure a firm footing for the walls.
- The base of existing walls requires special care. Through the placement of extra plinth in the form of a toe, will help keep the flood water away from the base of the wall, and also help avoid disintegration [*sic*]. As long as these precautions are taken, there is no requirement for foundations.

Floors

- Rehabilitated shelters: all floors should be at least 6" above the ground level.
- New shelters, the floor level should be raised to 1'6" above the adjacent ground level.

Reed structures

- Since the damage is found largely at the base, it is therefore important that the floor and the base of the reed structure is raised by at least 1'6" above the adjacent ground level.

Mud Walls

- Mud walls should be at least 18" thick.
- Old and damaged walls can be rehabilitated through the use of bamboo lattice over cracks etc. and then finished with mud plaster.
- The use of lime makes walls weather resistant. A mixture of lime, mud and *bhoosa* (straw) well mixed and fermented for 24 hours will provide a layer that will make the internal mud fabric of the wall safe from rains and flooding.

Reed walls

The following precautions in construction will prolong the life of such structures:

- The damage to the reed rope that encircles the vertical reed structure shows that the fastening arrangement has to be much stronger. Studies need to be carried out in fastening methods for the reed rope with the vertical reeds structure.
- The disintegration of the outer mud plaster cover results in damage to the main reed wall structure. The use of a lime-mud mix for plaster will provide the necessary protection to the inner reed structure.

Roof

- Levelling the top of the wall with water level.
- Introduction of a bamboo reinforced lime concrete beam at the top of the wall.
- Proper jointing of joists with purlins.
- Use a layer of tarpaulin sheeting."

2.3.4 Tools

The development of standard templates for FGDs, CSs and semi-structured key informant interviews were iterated: over the Desk Phase; during a kick-off meeting with the Pakistan Shelter Centre evaluation team at the beginning of the Field Phase, drawing upon the experience of team members in unrelated similar activities in the same or similar locations; as well as through testing over the first day of field work.

The templates for FGDs and CSs were adapted in the light of feedback from those surveyed and the evaluation team. The questionnaire developed integrates strategic and technical indicators (2.4.1, 2.4.2) set out in the SOF with the eight EQs presented in the SoW (2.2) into a format where useful answers were elicited at village level. The Questionnaire was used consistently by the evaluation team members and included a consent statement.

The questionnaire supported the triangulation of results: a series of questions relating to the same indicators and EQs were asked, verifying responses. The FGDs, CSs and key informant interviews were additionally compared to verify conclusions.

Feedback from FGDs, CSs and semi-structured key informant interviews, whether face-to-face, or via Skype or teleconference, were all complemented by findings collected during the Literature and Documentation reviews. These were implemented mostly during the Desk Phase, although continuing in-depth assessment was performed throughout later phases, supporting further triangulation.

2.3.5 Constraints

The travel itinerary was proposed by IOM, both in the Desk Phase and subsequently in the first days of the Field Phase. Shelter Centre and the evaluation team commented upon the itinerary, and changes were on the basis of time and logistic considerations to arrive at a process that has clarity and was achievable. As such, the selection of the villages selected for the evaluation was not fully impartial; however, every effort was made by both IOM and Shelter Centre in order to optimise impartiality, within the constraints of the duration of the Field Phase and access, determined by security considerations.

The limited time available for the Field Phase, when combined with project delays resulting from the Eid holidays and unpredictable arrival of visas for Pakistan for the core Shelter Centre team, resulted in five impacts upon the evaluation process. First, it was not possible to submit the inception report mentioned in the SoW, given that the late arrival of visas left only 72 hours' notice, prior to the departure of the Shelter Centre core team for the Field Phase. Secondly, the travel itinerary was agreed largely on the basis of travel logistics considerations, as described above. Thirdly, there was insufficient time in Pakistan to undertake all of the semi-structured key informant interviews intended, or respondents were unavailable with the amount of notice offered to them, despite the proactive and invaluable support of IOM Pakistan. Further interviews were undertaken subsequently via VoIP or phone. Fourthly, there was limited time to test templates for FGDs and CSs. Fifthly, there was limited time to undertake sufficient FGDs and CSs, so as to result in sample sizes that would be significant statistically for localised analysis and full triangulation.

***Photo 3**, Single Pitch roof design, the most popular design. This photo taken in Newabad Chilhar*

3

Literature and document reviews

A review was undertaken of literature not produced by IOM or its Implementing Partners (IPs), specifically concerning the ORS programme and documentation produced by IOM and its partners. Selected results are presented related to: other flood response shelter programmes (3.1); other evaluations of shelter programmes (3.2); case studies of shelter responses to recent floods in Pakistan (3.3); lessons learnt from the 2011 flood shelter response (3.4); and document review (3.5). The purpose of the literature review was to inform the evaluation and triangulate other sources, especially with respect to institutional learning and insights on the effectiveness, efficiency and appropriateness of the shelter programme of IOM against its core objectives.

'Improved Shelters for Responding to Floods in Pakistan, Phase 1: Study to Develop a Research Methodology', (Arup and IOM, 2014) includes a Document Register, presented in Annex B, which includes 767 relevant documents. These are not currently publically accessible and were therefore excluded from this review.

3.1 Other flood response shelter programmes

3.1.1 Global lessons drawn from previous shelter responses to floods

Lessons have been drawn from previous shelter responses to floods, regionally and globally, that have informed this evaluation. The ISDR 'Guidelines for Reducing Flood Losses' from 1998 (UNISDR, 2001) detail structural measures for flood plain management, such as the construction of protective works, including flood storage reservoirs also useful to support agricultural activities in dry seasons.

Nine lessons were consolidated by the ProVention Consortium with ALNAP in their 2008 briefing paper (ALANAP 2008). The lessons most pertinent to this evaluation are summarised below.

[1.] **Flood risk reduction**, included selected key lessons on both structural measures for flood control and community preparedness against flood.

Key lessons selected by the study for structural measures for flood control were as follows.

- "Integrated flood management activities, not stand-alone approaches, are required. City development plans should take into account urban drainage in floodplain areas, including control of water sources and non-structural measures from the planning stage (WMO, 2004).
- The process of flood management should be participatory and catchment-wide, with communities being proactively involved.

- Development policies and projects that ignore vulnerability often exacerbate disaster problems or even create disasters.
- Technical considerations should not preclude socio-economic considerations (WMO, 2003). One of the key reasons why projects go wrong is that they are approved on the basis of technical information alone, rather than based on both technical information and local wisdom (ActionAid, 2005)."

Key lessons selected by the study for community preparedness against flood were as follows.

- Community-level disaster preparedness planning that begins immediately after the relief phase reduces post-disaster anxiety (SCF, 2005).
- The most important precondition to ensure that DP activities are sustainable is to improve linkages between the activities and local government planning processes (DipECHO, 2004).
- Support for mitigation activities is required but the focus should be broadened to include non-structural measures, for example, supporting livelihood-related endeavours as a means of mitigating future disasters.
- Even the best performing communities will require a minimum level of follow-up support and guidance."

[2.] **Building ownership and engaging with local capacity**, lessons comprised participation and the right to information.

[3.] **Needs assessment**, noted that:

- conditions on the ground, not artificial programme cycles, should inform programme phases;
- flood response generally better meets requirements where assessment is an ongoing process and is responsive to changing conditions;
- it is often difficult to ensure that vulnerable people can access assistance and take part in the decision-making process;
- people's needs and the flood's impact are not linked solely to the level of water, and the conditions of their lives and livelihoods do not necessarily improve when the water recedes;
- the situation may also change as a result of collective impact and/or the response policies of other agencies;
- an overall understanding (through better coordination) of other agencies' plans contributes to a more positive impact;
- it is important to allow vulnerable people's own choices, concerns and priorities to influence agencies' response strategy;
- good research during a flood often provides good analysis to help redefine programme approaches and phases;
- identifying such needs and capabilities in the assessment phase strengthens all phases of the response, whether search and rescue, relief, rehabilitation or preparedness for future disasters; and
- assessment should go beyond current needs to assess structural causes of vulnerability".

[4.] **Targeting and monitoring**, presented lessons learnt from the Bangladesh flood in 1998.

- Agencies that had previously worked on disaster preparedness were best able to define the criteria and method to select the most vulnerable people and implement and monitor the selection.
- Agencies that had taken up lessons identified from the 1998 flood developed flood vulnerability concepts and maps, based on major river basins and flood plains.
- Agencies with pre-selected partner NGOs for disaster-based relief and rehabilitation usually provided them with up-to-date training and guidelines in beneficiary selection."

[5.] **Livelihoods recovery**, noted that "Quick and effective recovery from the impact of floods depends significantly on how quickly livelihoods are restored."

[6.] **Local economy and market**, noted that "Floods affect not only household livelihoods, but also the local economy, within which household livelihoods operate."

[7.] **Water, sanitation and health**, noted that "People themselves, national authorities and relief agencies in many flood-prone areas have had to develop mechanisms and technologies in order to sustain populations living in flooded environments."

[8.] **Shelter and housing**, noted that "Reconstructing permanent housing in large-scale disasters may take a long time. In such cases, temporary or transitional shelter should have adequate facilities (for water and sanitation and cooking)" and presented key lessons on both reconstruction and settlement planning.

"Reconstruction:

- Raised plinths and foundations (DEC, 2000a; Kent et al., 2004).
- Combining a strong frame with lighter wall material that can be replaced after floods, which has been used successfully in Vietnam by the Vietnamese Red Cross and IFRC (IFRC, 2001)
- Raised shelves to protect valuables.
- Using more durable building materials which resist water damage.
- Planting water-resistant plants and trees to protect shelters from erosion (ITDG).
- Establishing community committees to monitor construction quality and settlement planning (AIDMI, 2005).
- Community outreach to promote hazard resistant design approaches in future building."

"Settlement Planning:

- Prohibiting resettlement in the most hazardous areas, if possible.
- Improving access to land.
- Limiting obstruction of natural channels, using absorbent paving materials and roof catchments to reduce runoff, and designing drainage to minimize intensity of water flows.
- Community emergency shelters and evacuation routes. Many people must choose to live in flood-prone areas to ensure access to shelter or livelihoods (McCluskey, 2001).
- Early warning systems, including rain or river gauges and community monitoring, to alert communities to flood threats."

[9.] **Managing nationwide response and coordination**, noted that "A pluralistic institutional environment and decentralised capacity, with horizontal and vertical coordination and information flow, have worked well in responding to large-scale floods in Africa and South and Southeast Asia."

In 2004, UNEP and UNESCO launched 'APELL and floods - a community-based approach for disaster reduction', which was presented in 9 steps.

[1.] "Identify participants and define their roles
[2.] Evaluate and reduce risks
[3.] Review existing plans and identify weaknesses
[4.] Task identification
[5.] Match tasks and resources
[6.] Integrate individual plans into overall plan and reach agreement
[7.] Draft final plan and obtain endorsement
[8.] Communication and training or updating testing, reviewing and updating
[9.] Community education"

3.1.2 Regional and other national guidance and analysis

Regional guidance and guidance developed for other hazard-prone countries offer examples for how the ORS approach might best described and presented most usefully, to support future flood response in Pakistan, such as a handbook on 'Design and Construction of Housing for Flood-Prone Rural Areas of Bangladesh'(ADPC, 2005).

Most of the guidance available is either strategic or technical, rather than considering also the implementation process, such as the practical details of community engagement and financial disbursements. Inter-NGO studies such as '2007 Floods in South Asia: From Impact to Knowledge' (southasiadisasters.net, 2007) emphasised listening to the communities affected, to understand better what intervention is sought.

Dr Rajshree Jetly, in her paper 'Pakistan Floods: Coping with Disaster' (Jetly, 2010), called for greater regional engagement, such as through the South Asian Association for Regional Cooperation, "to be used as a platform to coordinate regional relief efforts and share knowledge on disaster management".

Marcus Oxley, in his 'Field note from Pakistan floods: Preventing future flood disasters' Journal of Disaster Risk Studies, 2011) made the following comment, placing humanitarian responses within a developmental context

> "Pakistan's current socio-economic development path has created disaster risk by increasing people's exposure and vulnerability to extreme flooding during heavy monsoon rains. To prevent future catastrophic floods a fundamental change in the country's development path is needed that decouples exposure and vulnerability from economic growth and is more in harmony with the functioning, capacities and thresholds of the natural environment. With the benefit of hindsight it is apparent the catastrophic flooding in Pakistan was far from "natural" or an "act of God" but lay primarily in the hands of the Pakistan government who have the authority to manage its affairs in the economic, political and social spheres."

3.2 Other evaluations of shelter programmes

Consideration was given to the growing number of shelter evaluations in 'Exploring key changes and developments in post-disaster settlement, shelter and housing, 1982 – 2006 (UN/OCHA and Shelter Centre, 2006), undertaken as a scoping study to inform the revision of 'Shelter after Disaster: Guidelines for Assistance' (UN and Shelter Centre). The study concluded that such evaluations "have demonstrated clearly the value to the sector and the international community of undertaking sectoral reviews of operations that link to agreed codes, standards and principles". It was noted in the study that these reports, which are part of much wider evaluations of entire responses, have yet to achieve:

- "consistency with assessments and monitoring, linking to the detailed criteria and indicators of standards and codes to complete the process
- results that are comparable between evaluations, for example by referring in meaningful detail the involvement of specialists experienced in settlements, as well as in shelter, housing and sometimes infrastructure
- clear paths to sectoral policy development that will be integrated by the international community into operational practice."

A recent donor global sector evaluation, spanning the period of the 2011 Pakistan response (ECHO, 2013) noted the following.

"Key added values and comparative advantages of ECHO are mitigated in the shelter sector by a certain lack of dedicated technical expertise, partly due to imposed resource limitations.

……. Beyond GSC [IASC Global Shelter Cluster] the wider shelter sector still requires support and training as a community of practice. The Cluster co-leads see their responsibility as limited to coordination within activated Cluster responses. As a result, coordination between GSC, the shelter sector, and other clusters has been lacking. Key weaknesses can be found e.g. in planning, terminology, or opportunities for all to engage into technical discussions. Significant progress was however noted recently in the development of the GSC Strategy, SAG, etc.

……. A better coordination with other experienced donors would be required e.g. in the framework of DRR/ preparedness for future large urban crises."

3.3 Case studies of shelter responses to recent floods in Pakistan

An 'External observation visit to post-emergency phase 2010 flood response shelter projects, Pakistan' (Shelter Centre for IOM, 2010) summarised six key lessons and six recommendations. These are relevant to the 2011 response in understanding the degree to which they were learnt and acted upon. The six lessons learnt were, in summary:

[1.] "Planning for early recovery (and reconstruction) should begin immediately …….

[2.] Transitional shelter will not be appropriate in all contexts …….

[3.] Develop and improve global institutional memory…….
The evaluation team was surprised to see that leading international aid agencies appear to still be lacking a substantial institutional memory. Knowledge capturing and sharing of lessons learned and best practices from past experiences are often overlooked and not used to improve the level of preparedness for future responses. For example, in many cases, technical information sheets and guidelines were being prepared from scratch, instead of being adapted to previously developed tools and resources. The global institutional memory of the organisation and of the sector needs to be improved, and project implementers may benefit from being made aware of existing available resources.

[4.] Use local materials and techniques where possible: lack of acceptance, and setting up supply chains, can cause major delays …….

[5.] Coordinate!
Many of the problems seen and reported by project implementers could have been overcome by better coordination at various levels …….

[6.] Equality of response
Agencies who chose to act outside of the Cluster risk implementing projects which offer an 'unfair' level of assistance to their selected beneficiaries. It was in fact acknowledged that some NGOs are providing extremely expensive ($3000, or Rs 140,000) solutions which are promoted as One Room Shelters but can really be considered as permanent reconstructions, with two rooms, latrine, veranda, electricity etc. ……."

The six recommendations were, in summary:

[1.] "If materials are supplied directly, tailor the materials to the specific needs of each beneficiary

[2.] Release materials/vouchers/money in tranches, based on the progress of groups of shelters
[3.] Expand or improve technical capacity
[4.] Maximise mass communication methods and social mobilisation programmes to spread awareness about flood proof techniques among the population
[5.] Consider the case where potential beneficiaries have started to reconstruct on their own
[6.] Invest in people not only in material."

Concerning the 2010 response, UNHCR also noted constraints in material and implementation capacities, when compared with the unprecedented scale of need (UNHCR, July 2011):

> "The large volume of reconstruction activities nationally is resulting in a chronic shortage of skilled labour and materials. For example, 3,278,688 bricks are needed daily to meet the construction schedule. The number of competent partners is also limited and UNHCR had to engage in training and coaching new partner organizations."

The 'Evaluation of the Relief Phase of the International Federation of Red Cross Red Crescent Societies/Pakistan Red Crescent Society', Monsoon Flash Floods Operation (IFRC, 2010) highlighted concerns over coverage and targeting. It also recommended relaxing logistical and financial procedures to allow faster response, however, whereas IOM took a different approach.

2011 to 2013, the donor SDC/HA supported an alternative approach technically, of "confined masonry within an RC frame. Roof with RSJ and iron T-sections, concrete blocks, a cement screed laid to fall", described in 'Community-based permanent housing: An owner-driven reconstruction project with a cash approach in Dadu District/Sindh' (SDC/HA, 2013). The unit cost was USD 2,622, or around five times that of an ORS.

In response to the 2011 floods, DFID also supported another ORS approach, implemented by the Pakistani NGO HANDS, in collaboration with the British NGO Strawbuild. The response used soil blocks stabilised with lime, bamboo, a rolled steel joist, ropes and solar lights and involved a significant training component, coordinated to a degree with the IOM ORS programme.

The 2014 edition of the 'Shelter Projects' publication series (IFRC, UN-Habitat, UNHCR) included an overview of responses spanning 2010 to 2014, in addition to three case studies from the 2012 response. The 2012 responses are relevant to this evaluation of the 2011 response as the differences between the 2011 and 2012 responses indicate some of the lessons learnt during 2011.

The overview 2010 to 2014 included the following observations.

Concerning the cumulative impact and scale of the series of flood events, it was noted that:

> "People who were already physically and economically vulnerable, have been hardest hit by each flood and coping capacities have been gradually worn down as in some cases recovery is halted by a new flood.....
>
> Following the 2010 floods, then the largest humanitarian disaster on record, the immediate priority was to deliver temporary shelters to millions of people across five provinces – an enormous logistical challenge."

The sophistication of coordination that evolved over the period was described:

> "Supporting shelter reconstruction on such a large scale has been challenging in terms of coordination, quality control and collaboration with local Government. Co-ordination has focused upon mapping actors at the village level. The Shelter Cluster initiated "District Focal Points" - NGOs who were given a small grant for transport and staff to constantly liaise with

and monitor progress of different shelter partners. This was fed back to the Shelter Cluster but also to the district Government offices, thus enhancing support and acceptance of this work by local authorities. Temporary Settlement Support Unit teams were constantly travelling around the various shelters (temporary, institutional or otherwise) and provide regular reporting on outstanding needs and return progress. Assessment of Coping Capacities in Return Areas (ACCRA) also helps to provide a multi-sector overview of needs and gaps in return communities."

Parallel Government compensation was summarised, valuable to understanding integration opportunities with ORS in 2011:

> "Federal Government distribution of an unconditional cash / compensation grant of up to US$ 800 for flood affected families to support recovery. This was by far the largest investment to date in recovery of any sector, costing almost US$ 1bn of Government/donor funding."

The challenge of achieving sufficient coverage with limited resources was identified:

> "The combined response reached over 200,000 homes between late 2010 and mid-2014. Though this is impressive, it represents only around 10% of the total number of homes destroyed by flooding over that period. Most of the remaining 90% have rebuilt basic shelters using materials or methods that still leave them highly vulnerable to future floods. Cutting the costs of individual houses has been achievable by shifting away from fired bricks and cement towards traditional architecture, mud, clay and lime based construction. The cost of an average house construction – including agency support and overhead costs – has been reduced from around US$ 1,200 after 2010 floods to just over US$ 500 in the 2011 and 2012 responses. This multiplied across the 100,000 durable homes constructed or underway equals an overall "saving" of almost US$ 70 million. This "saving" has resulted in reaching more than twice as many people for the same investment."

Clear recommendations were offered relating to agreeing strategies and designs:

> "While major cost savings and carbon reduction strategies can be applauded, the very notion of flood resilience in shelter needs some level of certification. As global climates are changing and natural disasters like floods in Pakistan are increasing in frequency and intensity; it is vital that we agree on strategies and designs for what constitutes a flood resistant shelter. There has yet to be an independent analysis of the physical capacity of reconstructed homes to resist intense rain or prolonged immersion in water, and this is a crucial technical issue to study. In September 2014 another flood has devastated thousands of homes across both Pakistan and India. Four years after the "mega-flood" of 2010, in the face of this predictable natural hazard, homes are still collapsing. This need not be the case, as we have learned through our shelter projects over these preceding years of flood and recovery."

3.4 Lessons learnt from the 2011 flood shelter response

In 2013, the EU held an event involving UNDP to extract lessons learned from Pakistan floods (EEAS, 2013). The resulting report included the following observations and recommendations.

- "Ensuring that the operational support functions were able to cope with the volume of work that was necessitated by such a large scale-up.

- Keeping programme strategies flexible and up to date with the overall context. Quick scale-up had to respond to immediate needs in order to result sustainable [sic] without creating parallel structures with existing government structures.
- Ensuring that the operational support functions were able to cope with the volume of work that was necessitated by such a large scale-up.
- Coordination with national and provincial governments to be prepared for future monsoons and prevent the same level of devastation. Enhanced institutional linkages between relevant authorities, schools, civil society and communities.
- Resilience and building local capacity to deal with future shock (local government authorities and schools have increased capacity to develop and implement school based DRR approaches); increased capacities to prevent, prepare and mitigate disaster risk through locally appropriate DRR strategies.
- It is important to work on Early Recovery and in this context the government has been very keen to shift from relief to early recovery as quickly as possible. Being linked to development, there is a need to combine early recovery with humanitarian assistance and assist both the most vulnerable populations and long term sustainability of the actions.
- Link relief, rehabilitation and development."

3.5 Document review

IOM provided a series of documents to the evaluators via Dropbox. These documents have been reviewed and revealed a high degree of importance placed upon the process by which the programme was conceived, envisioned, developed and operated. They show the importance of operating within the political and cultural environments that exist in the programme area, in the province and nationally. Particularly they highlight the use of Champions, such as the Heritage Foundation and the very close relationship with and catalytic role played by DFID in bringing the various types of stakeholders together.

The documents also demonstrate the development of the programme and the lesson learning, which ensured that such a large programme was manageable with clear roles and responsibilities as well as clear reporting lines.

***Photo 4**, Bending roof beams in Fotojogi*

4

Results

4.1 Overview

The ORS programme combines self-help and community labour, cash, supervision and technical expertise with capacity building, in the form of village-level construction training. It targets the most vulnerable in communities, identified with the communities themselves, in order to successfully optimise coverage: many millions were affected but resources available internationally were insufficient to support blanket programming. Even using this efficient targeted approach, this programme, which was the largest in terms of coverage, only reached approximately 1.5% of the affected housing (not all of which was of course uninhabitable) nationally. It has at its core the fundamental assumption that people have a personal interest in living in safer and more resilient accommodation than they were before floods. It is an occupier-driven reconstruction process with DRR features.

The old *Loh Kaat,* or traditional low, thick walled flat roofed building structure cost more as compared to the ORS due to the limited availability of timber in some areas and hence its relatively high cost.

Part of the success of the programme and the lessons that can be taken forward within Pakistan and globally are the combination of the technology itself and the process utilised to apply it with and for beneficiaries. In evaluating the programme as a complete entity therefore it is of value to look at who developed, championed and convinced stakeholders to support the programme. It is of equal value to examine the process taken to apply, support, operate the programme and record the outcomes that enable replicability of the programme.

The overall approach and the process are examined within this section as are the eight questions asked by IOM of the evaluation in the SOW.

In turn, conclusions are drawn from the data and analysis of the data relating to each section and each question and given in the Conclusions section of the report. These conclusions are then used to develop the recommendations at the end of the report. The evaluation ensures a logical flow of information, which is analysed consistently and leads to defendable conclusions. In turn, the conclusions lead to the recommendations which are, therefore, supported by the data collected during the field work and literature review.

4.2 Approach

After the catastrophic 2011 floods, it was clear that shelter/housing was the priority of those affected and led to a lot of debate within Government, the Shelter Cluster and IOM at the Islamabad level over how a shelter programme be structured, with the Cluster shelter technical working group at the centre of discussions and standards setting. Some, for example, wanted to use concrete blocks, others burnt bricks and still others wanted to just provide materials. Many Government representatives, at national, provincial and district levels, along with some National NGOs considered that the ORS shelters were not *Pukka*, unlike concrete and brick houses, in that they were perceived as: not reducing risk to floods; being a cost-effective investment, requiring further work; and being too small for cultural norms, suggesting instead that a two-room layout was a minimal requirement, offering a separation between female and male living spaces. In 2005, the Government and NDMA defined a house as having a kitchen and bathroom, although the bathroom facilities might be communal. Consequently, it was difficult to convince other stakeholders of the appropriateness of the ORS approach.

In the context of coordination support, the 'External Evaluation of the IOM-led Shelter/NFI Cluster in Pakistan 2010-2013' (Global Shelter Cluster 2014) noted that:

> "…the cluster was effective at coordinating the response in the shelter and non-food item sectors, and regularly identified as one of the best clusters activated in Pakistan."

On technical support by the Cluster, the report continues as follows, (however these conclusions appear less relevant to the IOM ORS programme specifically, as IOM also led the Cluster and communication within IOM and with its IPs was effective.)

> "The technical guidance produced by the cluster has not had as much impact as it could have had. Few actors interviewed by the cluster had used the cluster's guidance as the primary source for the technical designs for the shelters they constructed. While individual best practices and improvements were well disseminated by the cluster, they did not truly lead the sector in identifying the most important shelter construction techniques appropriate to the response in Pakistan. That being said, the Shelter/NFI Cluster and its partner agencies have left behind an important body of technical guidance produced in 2012 and 2013 that will be important to future humanitarian shelter programs in Pakistan."

Within the ORS programme specifically, IOM support to both coordination through IM and project management was perceived by IPs as being very good. Technical guidance was also valued and constitutes part of the important body of technical guidance, important to future humanitarian shelter programmes in Pakistan.

Success was though built upon a clear, simple philosophy and vision from IOM which predicated upon optimising coverage: a large-scale response to a large-scale problem. It gave equal importance to the process and to the technology and as it was a process that integrated national and international experience and capacity In collaborating with a Pakistani organisation in the form of the Heritage Foundation, ORS was able to navigate through opposing views and gain Government acceptance, as proven by their issuing No Objection Certificates.

At the provincial level, Mr. Akhlaq (PDMA) stated that after 2005 earthquake, NDMA, PDMA and humanitarian actors follow one standard protocol that is "Build Back Better". Therefore PDMA was expecting the same kind of assistance as was piloted in Muzaffargarh, with the help of the Turkish government, which was a Two- Room Shelter (TRS) with a veranda). He was of the view that ORS is not optimal to accommodate the needs of the families.

Overall, no formal international appeal was launched in response to the 2011 floods. In effect, the appeal was reshaped, as per the Humanitarian Country Team (HCT) agreement, to be an Early Recovery Plan, which itself achieved only some 11% of the funding requested. This meant cost considerations were paramount.

If the PDMA had been given a choice, they would have selected TRS instead of ORS. It was the former District Commissioner of Tharparker who emphasised the research into the dynamics of the different areas for the provision of shelters.[1] He also acknowledged how limited resources available for the project were one of the main factors which mitigated in favour of the ORS approach. The Heritage Foundation, encouraged by DFID, in reality provided the political space with which to operate with Government at provincial and national levels, as well as with both the PDMA and NDMA.

IOM gave a big push for a vernacular design by the Heritage Foundation using mud/lime, not burnt bricks. Burnt bricks are often of poor quality and are expensive, whereas mud is a known process which can be and is maintained regularly. However many of the traditions of using lime as a stabiliser needed to be re-introduced. This was achieved via a push from DFID and through the ORS programme, by bringing expertise from the British NGO Strawbuild, in collaboration with the Pakistani NGO HANDS. There are fundamental issues over brick production in Pakistan. The industry is considered to be environmentally unsound, with poor labour practices, including child labour issues. Previous experience also showed that there were large price increases when demand rose following a shelter crisis; with prices often doubling whilst quality falls away markedly.

In only one village, Ali Muhammad Talpur, was evidence found of other NGO activity in the shelter sector: they said that there had been construction using old techniques, thinner walls (12" vs ORS 18"), no lime, steel girders and a husk covered roof. Plus one other NGO had provided roof construction kits.

4.3 Programme process

It is the contention of the evaluation team that the processes utilised to deliver the programme are as vital to the programme's success as the technology itself, therefore the process is examined as a result and given equal standing to the objectives or questions that IOM set.

The programme started from a pilot, so gaps were inevitably present but the process was improved annually. Differences between 2010, 2011 and 2014 programmes were mainly technical, with more options for beneficiaries in earlier programmes, including the use of bricks, blocks and steel roofing members, combined with consistent technical advice on how to use these materials in order to reduce risks. A significant weakness of such an approach was the challenge for IPs and IOM to support the full range of options with sufficiently detailed technical advice and capacity building, affecting the speed and quality of the buildings, as well as the ability to work at scale. Initially, the technical recommendations and guidelines were based on insufficient survey data, so a more systematic set of surveys and studies were conducted with the Heritage Foundation covering the technical aspects of the programme.

Additional changes were made to suit the scale approach, the pace of construction required over a wide geographical area and the funding situation. These included removing the *karavan* roof[2] and developing the construction process itself into a self-build process, away from the artisan built process that was originally conceived as being the way to implement.

1 For example; Tharparker people live in traditional hut type structures called *Chowras* and for them one room was enough, with respect to their cultural acceptability point of view and tradition of the area.

2 This is a Heritage Foundation term and refers to the bundled and bolted bamboo as beams, combined with a ring beam. Whilst in the ORs programme the bamboo is wired together rather than bolted and the ring beam remains.

Other processes such as the use of a single focal person (in place of a committee) and the use of peer pressure to ensure completion of all buildings within an agreed timescale within a particular community, were borrowed from successful large scale programming models, in this case micro-finance. These combined processes are seen as a way of addressing the needs of the elderly, the disabled and female headed households; involving the community to help with the selection of beneficiaries within villages identified as priorities by the country wide strategic goals for Shelter reconstruction.

There was an opportunity to work on community issues such as WASH in parallel to the ORS programme, using community good will and dynamism to develop additional programming and consider needs holistically. Integrated multi-sectoral programming at community level was rejected as a cost saving measure, however, and it was decided to keep to a single sector approach.

The overall process is governed by a manual (IOM, 2012), targeting IPs selected following the call for proposals. The manual describes the process to be followed whilst implementing the ORS programme. It does not offer much detail on the process, such as the mechanisms, opportunity and challenges of cash disbursement, or any information about the training, bar recording them in the Information Management System.

The process is as follows:

1. IPs selected via call for proposals (not included in Manual)
2. Assessment undertaken
3. Villages selected based on damage and level of vulnerability assessed against 6 criteria:
    - 3.1 Households with Female heads of household
    - 3.2 Households with no adult male (Orphans)
    - 3.3 Households with an elderly (above 60) member
    - 3.4 Households with a disabled (blind, deaf, crippled) or chronically ill member
    - 3.5 Households with extremely low income1 and no livestock
    - 3.6 Households with a dependency rate above 60%
4. Village committees set up
5. Committees selected up to 25 households as beneficiaries
6. IPs verify the selection process
7. Focal Point is selected/elected
8. Focal point opens bank account with MCB bank
9. MoUs between beneficiaries and IPs endorsed
10. Training
11. Transfer of cash
12. Plinth construction
13. Construction verified
14. Training
15. Transfer of cash
16. Construction of walls
17. Construction Verified
18. Training
19. Transfer of cash
20. Construction of roof
21. Construction verified
22. Completion verified
23. Focal Person receives payment

Challenges

There are the expected challenges that any programme comes across, such as slow reporting from Implementing Partners. These should be able to be overcome, as they occur in most programmes and should have been assumed in programme planning within IOM.

One item of note was that at the end of the process, solar lamps were given to the ORS households. Of those lamps seen by the evaluation team or that the team were told about none were in working order, due to battery failure. According to IOM, a recent DFID monitoring trip to North Sindh showed solar lamps distributed in 2012 were in working order. IOM used the same model of solar lamps throughout Sindh. The nickel battery used in solar lights was specified to last for at least 2 years and the light comes with a one year warranty. Although the lights lasted for their designed life, there is no evidence of purchase of replacements.

Information Management

There was a clear process of information management during the programme. ORS IM staff produced a weekly report for internal monitoring of progress. Regular updates were shared with the programme management. Slow IPs were followed up on. Other than regular monitoring visits, project management was used to direct teams to push for a quicker implementation and payments made and in process.

Information flows were designed to minimise implementation errors and as a self-propagating process. For example, the next tranche payment was processed only after receiving and verifying the Village Monitoring Checklist and the previous cash receipt form, as per the construction milestone. This ensured that all beneficiaries in a group had received a tranche and a construction milestone has been achieved before moving onto the next payment process.

When a complaint was received, the basic information such as village, focal point and IP details were verified through the database. Before cash disbursement to focal points and IPs, the complaints database was checked for any pending complaints against them.

The team found no issue that arose from this process. The information management processes offered cross-verification and accountability, without being overly complex.

Whilst a lot of information about the programme does exist, it is accessible only to IOM. Some of the processes and information would also be extremely valuable to others who would like to follow similar and consistent programming in the future.

Programme objectives

These are covered in some detail in section 2 of this report.

4.4 Evaluation questions

The Scope of Works for this evaluation provided eight questions to be answered.

The questions together with the global objectives and the technical indicators, combined to direct the questioning used in the field evaluation and the lens through which the literature survey was developed. The answers to them are presented below.

4.4.1 Impact of the cash approach

Impact of the grant on families' daily economy Savings and its use (Case Studies)

The ability and willingness to pay for doors and windows was used as a proxy indicator for the overall effect of the grant on a community or family. It is clear from all respondents and all interviewees that the grants were overwhelmingly used for what they were intended, namely the construction of a shelter. It is also clear that the size of the grant had only a limited effect upon the cash levels within either family or community. No widespread additionality that can be reasonable attributed to the programme inputs, in terms of growth of livelihoods, potential etc. were found in ORS recipient communities.

Grant size

IOM staff informants stated that they considered the issue of the size of individual grant against the need for a greater coverage and the likely level of support from donors. They came down at a level for the grant which was thought to be the minimum external point that was able to catalyse an effective and sustainable recovery. Following the pilot the amount of the grant was increased, according to programme documentation, from 26,000 to PKR 30,000. If the grant was any smaller, it would not have covered the basic costs for a shelter and hence funds would have been likely to be wasted, as beneficiaries are unlikely to be able to contribute their own funds to complete the shelter. This is supported by the fact that not all beneficiaries have been able to provide doors and window. If the grant had been any larger, the evaluation team believe that they would have been able to find additional use of the money and they could not. Some villages did say that the money was too little and this was often related to the additional costs of transport, one village was paying PKR1,500 for mud to be delivered from 30km away, as they had local issues with salinity. 57% of ORS households said that the funds were sufficient, whilst 43% said they were insufficient and said that they had taken measures, such as selling goats, to meet the shortfall.

Beneficiary contribution

Of those interviewed only 22% reported being able to install doors or windows, as they are beyond their means, or once they have the walls and roof they have other more pressing priorities. Some people reported this as being a security issue for them, against theft and against animals. The value of the grant is not in fact designed to be able to cover the cost of doors and windows; these were to be left to the beneficiary to source. The ability or willingness of people to purchase doors was highly variable between villages and within villages, as one might expect. It ranged from those who could afford doors and windows to those who could not or who did not see them as their priority, especially in the summer. There is no discernible trend, determinant or group of determinants that the team could discern that governed beneficiary's ability to pay for doors and windows. Some said they could save money from the grants to pay for doors and windows, some salvaged doors, in particular, from their previous homes and some took loans for doors and windows. One example given was that a loan was taken directly from the carpenter who made doors and windows, and repayments were being made at the rate of Rs.200 per month. There was one reported incident, in Challar, where the IP had deducted money, 7,500 rupees, for doors and windows. This was investigated and the funds returned to the beneficiaries.

***Photo 5**, Self-made window grating in the village of Mir Mohammed Ali Khan*

In some places, indeed in 3 of the 11 villages visited, some families have filled in their window openings completely whilst some have created mud gratings of various designs to infill the windows. See Photograph 1.

In 2011 therefore, specific accounts were opened for named individuals with banks with links in the area. MCB bank is now used, based upon past performance and coverage in the area. Disbursements can still be slow at the branch level, issues about capacity of banks to open
accounts and deal with the high additional load at certain times and in certain places remain. No Focal Points and no beneficiaries mentioned this as an issue of concern.

The use of bank accounts for the FP was clearly a bonus for many. Some did not know how to set up an account or use an ATM before this process and indeed some used an ATM the first time under this programme.

Photo 6, Razo's ORS Shelter but not of Razo herself

Case study A

Savings

Name	Ms Razo
Family size	1
Village	Ambo Koli
District	Badin

Despite detailed questions conducted in all the villages visited, there was very little substantive evidence of the use of savings for ORS construction.

A number of people did hire labour to undertake some of the construction and hence increased the cost of the ORS shelter above the grant level. This was often funded by selling any surviving livestock for example. Some did buy or take out loans to add doors and windows, however, these additional items were not always people's priorities. A number have spent on weddings or restocking livestock. This indicates that there are competing priorities for any savings or any income that would previously have been put towards shelter. In general though the field team saw very little evidence of the widening of livelihood opportunities.

Generally, there are two categories of people with respect to savings.

- Those who did not use saving for ORS construction, with either no identified need to use savings or no savings to use.
- Those who used savings, (often selling livestock) or took loans from their landlord to complete ORS construction, or to add doors and windows.

The information collected from beneficiaries fell into these simple categories, although both had other priorities for money. The most often reported was especially the marriage of daughters, showing that the assumption that people want a shelter is true, but finishing it off with doors and windows is not their priority, or they needed more time to complete.

One helpful example of the challenges in using savings is Razo, who lives in the village of Ambo Koli in the district of Badin. Razo is a 50 year old widow, whose eldest son works as a labourer in Karachi. She also has another son and daughter living with her. She works as a labourer for the local landlord and had to employ people to build for her, as she could not leave her work. She paid PRs 9000 to lay the bricks and another 7000 to purchase the bricks for the shelter. She plastered it herself but the shelter does not have doors or windows. She would like them, as she does not feel safe without them and animals can come inside, but the money for these must come from her son, as she can't repay a loan and has no savings.

***Photo 7**, Mrs Sayani at the all-female Focus Group*

Case study B

Savings

Name	Mrs Sayani
Family size	4
Village	Zubair Otho
District	Badin

An example of the use of savings or income for livelihood activities is Mrs Sayani and her husband. They have a son and a daughter and live Zubair Otho village, again in Badin. Mrs Sayani participated in the ORS training and built most of the ORS, whilst her husband worked as a daily labourer. She was injured whilst building the shelter but has recovered and now works as a mason, using the skills learnt from the ORS programme. Using her additional income, they have now bought goats, in preference to doors and windows for their shelter.

4.4.2 Livelihoods demands vs programme implementation requirements

Time usage and division limitation and success (see also Gender section)

Of those interviewed in villages as part of the evaluation process, 59%, were tenant farmers, whilst 28% classified themselves as labourers and 11% as entertainers[3]. The remaining 2% had other livelihood activities, including working as civil servants.

Effort required to construct the ORS shelter

The ability to build was however governed almost predominately by the agricultural season. The evaluation team found that in the heavy agricultural seasons, construction work was undertaken by the women of the family, often with the assistance of other family members, at other times the men would work on farms during the day and then later in the evening or at night on the shelters. There were lots of reports of high levels of workload during construction, however there was no reported resentment about the additional workload, it is clear that the ORS shelter was considered therefore to be worth the effort.

Whilst only one village reported that they were given time off by their landlord to undertake construction, some were able to hire in labour. In one village, Sher Khan Chandio, six of the 19 households hired labour to construct their shelter or to assist with its construction.

There was only one occasion when one woman said she now worked in construction, following the ORS training, and only 4 others said that they had become masons following the ORS process. These small numbers show that the ORS process has not stimulated or enabled a spontaneous or widespread change in livelihood activities.

3 One village only were entertainers

The women interviewed who were in work worked almost exclusively in farming, with a few engaged in handicraft work. In one village, 2 out of the 26 women interviewed in a village with 60 ORS dwellings undertook tailoring as they had before the floods. One village was trying to get the local skills organisation to teach the women stitching, but this not linked directly to ORS.

Targeting

The Union Council (UC) ranking exercise devised by the Shelter Cluster played a key role in the selection of UCs. A number of villages who had ORS houses had not been affected by the floods. They had been affected instead by the heavy rains, which caused considerable damage, but not from floodwater at ground level. This would imply a different pattern of damage requiring a different response, not necessarily including construction of a plinth. In some places, these would be close to villages that had been badly affected by the floods themselves which had not received assistance.

Within villages there were some ORS shelters that were not occupied. They were used for a variety of purposes including TV lounge (Case Study), agricultural store and what was termed guest room.

Whilst some issues can be explained by the fact that houses were given on the grounds of nuclear family needs, people in fact live in extended family units. It is clear that there might usefully be a review of the process some targeting between villages or within villages.

4.4.3 Local procurement (use of local markets)

Challenges and solutions for beneficiaries and community
Material availability and quality

Procurement was exclusively the preserve of men.

Overall, procurement was clearly a challenge for some but not for everyone, with 50% of villages reporting having challenges but overcoming them. These were mainly transport issues and the need to purchase from other Union Councils or main cities, such as Hyderabad. Within the villages, some 26% report the procurement process as being led by the Focal Person, whilst 35% were led by a village committee. In three villages they reported that some of the procurement was done by the IP. In one place this was limited to lime and bamboo. In the others, it was undertaken by the IP keeping funds back and supplying materials in place of funds. In this case it was reported via the complaints system and the funds repaid to beneficiaries. In the final village they did not realise that the IP should not have supplied materials and hence did not report the issue. Here, the bamboo was young, and hence small, and had been attacked by termites, and therefore harvested at the wrong time or improperly cured. As a result, some people had moved out of their ORS houses, as they feared the roof would collapse.[4]

One other village said that procurement had been done by the landlord. This raised concerns about the purchase of poor quality materials and the pocketing of funds. No one reported, or was prepared to report issues with material quality and no issues were observed by the evaluation team. In the only village that said they undertook procurements as individuals, two interviewees said that they had been misled by the shopkeeper into purchasing poor quality materials.

Many people faced transport issues which increased the cost of construction considerably and represented 50% of the challenges reported. There were also some issues over material quality including mud and bamboo, with

4 Where the internal IOM investigation process demonstrates corruption, then the IP has been fined and money paid to beneficiaries. 4 complaints were followed from reporting and logging onto the IOM system through to conclusion by the evaluation team.

17% saying they had no prior experience of purchasing or working with bamboo. Those that reported the activity liked the fact that the IP had given them a sample of material, such as bamboo, with which to compare their own purchases. This seems to have enabled communities to judge material quality well.

The distance of the community from the source of materials did seem to have a correlation with the perceived quality of materials used/received. One community had to get mud from some 30kms away and they said that what arrived was of very poor quality; indeed, we directly observed the walls and plinths crumbling. It could not though be returned once delivered. We picked up only one reported case of materials being returned and that was a delivery of lime. Some people within the focus groups felt there should have been additional help with transport costs.

Inflation in the price of materials was an issue for almost all villages, with the reported rates varying from zero in one place to over 100% in others. One village reported that bamboo went from PKR7/ft to PKR15/ft, whilst another said it had gone from 7 – 10 PKR/ft. Additional demand was always quoted as the reason.

On two occasions we came across villages that had used wood in place of bamboo. They said they had agreed this with the IP as they had no local supply of bamboo and no traditional knowledge of working with bamboo.

Where we saw repairs to the roof, exclusively caused by termite attack, some bamboo had been replaced or supplemented by wooden beams These were found to be from their old houses and the rationale for using wood in the repairs was that it meant the repair was done at zero cost. Note that wall repairs that were seen were not being undertaken with lime.

It should be noted that there is technical advice included in the manual and in the training, for improving the resistance of the structure to termite attack, such as filling the open ends of the bamboo with mud and lime or coating with used engine oil. However on this occasion it seems not to have worked and younger bamboo is known to be attacked by termites more than the older bamboo recommended.

***Photo 8**, The poor quality of imported mud in the village of Mohammed Hassan Kapri*

4.4.4 Training satisfaction and effectiveness

Knowledge transfer process
Mentoring evaluation impact
Construction practices changes
Safety perceptions by BHH

The training was seen as pivotal, by 100% of beneficiaries interviewed, to their being able to build their own shelters. Some issues about attendance were reported in the first session in some villages. One village reported that the training was poor/slow to start, the first session had only 3 women to 16 men; the following sessions however were better attended by women, as the village said " Because the females do all the construction work". Re-engaging with the community seemed to fix the lack of attendance, indeed many communities reported that others, especially relatives, attended the training even when they were not ORS direct beneficiaries. Only a small number of communities, 34%, reported being engaged in planning the training.

26% of villages built a demonstration shelter as part of the training, with it going to a widow in one village. Practical hands-on training, where it was given, was reported to be the more 'liked' aspect of the training. Of those who could think of improvements, more or more practical training was the most common suggestion, 75% of the time. One village in fact reported that three of the beneficiary households hired labourers to build their shelters and these were then used as the demonstrators by the other beneficiaries. Other suggestions for improvements were limited to more or more detailed posters, which were suggested some 50% of the time.

It was also clear that not all training was suited to all beneficiaries and not all training was conducted effectively by the implementing partners. The purpose of some of the training seems to have been to get through the training, rather than ensure that knowledge was effectively transferred to a wide variety of people, with a wide variety of pre-existing skills sets. Short, one-hour sessions were not seen as satisfactory and ongoing mentoring should clearly have been more intense. There were also anecdotal reports of some training not being conducted in local languages and technical terms were used that could not be explained.

That said, overall, the combination of training, demonstration house, mentoring, posters and visits seems to have met the needs of the majority of the ORS beneficiaries. The evaluation team received no complaints about the training, beyond the issues noted above. Indeed the majority of villages said they could not think of any ways to improve upon the training.

People reported that they benefited from the close contact and support with the IP staff, especially when they had to undertake the work they were not so used to, such as building the roof and its joists. The model seems to have differed in some places, with some saying that the FP received additional training and that he then became the mentor within the village. This model, assessed by comparing issues raised in focus groups, seems to be a less successful model.

***Photo 9**, Complaints poster still available in the village of Newabad Chilhar*

There were only three instances reported to us of children and women going sick or injured when using lime, even though personal protective equipment was supplied. None of the injuries were long term. Many communities moved to communal lime storage and use rather than at the individual household level.

Safety was defined in a number of ways including safety from theft and from earthquake, flood and rain, etc., the lighter weight roof plus overhang (though some thought the overhang should be bigger as there was some ingress of rainwater during storms accompanied by strong winds). There was not one village that did not think that the houses were safer than their old houses.

Very few injuries were reported though many women said they did not like being on the roof, there was only one report of a fall and one women was reported to have injured herself badly when digging mud for the programme.

Some IPs were promising a 25-30 year life, whilst another quoted a 10-15 year life.

4.4.5 Disaster Risk Reduction Impact

Replication within communities (Case Studies)
Change in attitudes and practices on shelter reconstruction

Roughly 1% of beneficiary households, who reported, said that they had added to their livelihood options as a result of the ORS programme. There have been no widespread changes in building techniques reported either. The team found only one person was identified who now earns part of their living by being a mason and said that she did not work on ORS type houses, but more traditional housing. The reason given was that there was not the demand due to cost and uncertainty about the advantages of lime.

There were reports of direct replication in only three villages. One said that another village had copied the ORS process and in the other it was reported that 4 houses were built in the ORS manner but not with ORS funding. They also noted that the additional houses were considered to be 'better' than the funded models but no rationale for this opinion could be determined. In the third village of Mir Mohammed Ali Khan nine other buildings had been constructed using the ORS method except for the roof. This was thought too expensive. Another said that 6 had been builtd following ORS to varying degrees, 3 were exact ORS approaches whilst one did not use lime, instead using mud, dung and husks[5]. This shelter we were told cost only some PKR25,000.

In addition to previous comments about safety, BHHs thought they were safer in the ORS housing, quoting, raised plinth, larger size of house, use of lime plaster, higher doors, strengthened and lighter roof as the qualities of the build that will keep them safer and allow their building to withstand future crisis, whether of the scale of the 2011 floods or not. The benefits quoted to the evaluation teams, were remarkably similar in most villages and the teams felt that they were being given the version learnt as part of the ORS process. This does not negate the level of satisfaction or the increased sense of well-being however and again no one resents the additional labour put into construct the ORS shelter. One interview said he thought his family were healthier than before and that his wife was happier in the ORS shelter than she had been in her previous house.

One village also said that they would take refuge on their roof and some had added additional timbers to the roof to allow for this.

[5] This is the traditional way of making plaster and loses the stabilisation and water resistance that lime gives the shelter. In short, the building is losing one of its DRR features and increasing its vulnerability to flood and water. The Shelter is therefore only being flood resistance for a short period of time.

Communities reported different maintenance requirements in relation to their previous shelters. There seems to be confusion here. One village for example said that now maintenance takes 3 to 4 days twice a year, as they have to chip off plaster. Previously it took one. This was contradicted by other communities who said that the maintenance load had been reduced significantly.

Despite people understanding, or being able to quote to the team, the value of lime in the plaster, the unwillingness to use lime in plaster when undertaking maintenance shows that there has not been a change overall in attitudes to buildings and building techniques.

4.4.6 Land and Property

Restrictions to shelter reconstruction (Case Studies)
Forced evictions and shelter abandonment (Case Studies)

No direct evidence was found by the evaluation team of any direct post construction evictions by landlords or by others. Indeed, even though other agencies such as OCHA[6] have recorded such things happening, none of the respondents engaged by this team said security of tenure was an issue. There was repeated anecdotal evidence from IOM team members, from Focal Points and from villagers (both beneficiaries and others) that some landlords had refused to allow the ORS to happen within 'their' villages and with 'their' tenants. Investigating this was beyond the scope of this evaluation.

One instance was reported to the evaluation team where the local landlord had refused to allow the community to dig mud for the shelters on his land. Overall though, it is clear that the landlords' priorities differ from IOM and beneficiaries, as there was only a single case reported of a village reporting that they were able to get additional time off to build their shelters. This adversely affected a balanced labour requirement and put a large additional burden on many women. Plus the construction timing did not seem to correspond to the agricultural year given that December/January was a time when people were free. Combined, these two factors, plus the tradition of construction being undertaken by women, explains at least partly[7] why much of the ORS construction was undertaken by women and children. There was no specific training or approach designed to even up or address this disparity in responsibilities.

Land was government, landlord and community owned in the villages visited: 66% was owned by landlords,; 16% was owned by the communities themselves; and 16% was owned by the government. One village reporting that the landlord had given them the land on which they lived once ORS construction had taken place. One village believed they were secure, as they had occupied the land for over 100 years.

IOM did not deal with landlords directly. This was a deliberate strategy, so that they did not get caught in discussions or negotiations with the landlord and hence landlords could gain no hold over the programme, or its resources. This seems to have been a successful way of working.

6 In Kashmore
7 In addition to traditional labour breakdowns and construction not timed with the agricultural year.

Case study C

Restrictions

Name	Mr Jumoo
Family size	1
Village	Mohammed Hassan Kapri
District	Mirpur Khas

Mr Jumoo is a 60 year old widower who lives in the village of Mohammed Hassan Kapri, in the district of Mirpur Khas. He is a land tenant, working the landlord's land as a tenant farmer, and used to have cattle in addition to the use of the land. The cattle produced milk for the family and for sale. In the 2011 floods, Mr Jumoo lost everything: his cattle died and he was rescued by army helicopter.

***Photo 10**, Mr Jumoo*

Name	***Unknown***
Family size	***Unknown***
Village	**Mohammed Hassan Kapri**
District	**Mirpur Khas**

Additional Photograph from the village of Mohammed Hassan Kapir. It shows a satellite dish outside an ORS shelter. There were a number of these seen throughout the village visits. Where they have the money, some beneficiaries or the extended family have taken out loans to purchase a TV, dish and decoder. The ORS shelter, which is considered the safest place once doors and windows have been installed, is sometimes kept as the TV room.

Note that ORS construction activities were often undertaken by an extended family. Even though the ORS shelter was given to a specific family member, it may well be used by the whole family for sleeping and living. Agricultural produce such as cotton was also seen stored in the building.

***Photo 11**, Satellite dish*

***Photo 12, A**bandoned houses in the village Fotojogi*

Case Study D

Abandonment

Name	*Unknown*
Family size	*Unknown*
Village	Fotojogi
District	Tharparkar

It was difficult to finds examples of ORS that has been abandoned by the beneficiaries and no examples were encountered in the villages visited of post-construction evictions. The only place where there had been abandonment found by the evaluation team, the family in question had moved to Karachi to work. Both were in the village of Fotojogi.

In one instance, the beneficiary had stopped construction at the plinth level and left the shelter incomplete; it had not been taken over.

In a second instance, it was the FP and his family who had left and abandoned a series of three houses in a compound separate from the village. He took the roofing materials from all three houses with him, as it was of high value and easily transportable.

4.4.7 Beneficiaries satisfaction

With the overall program
With cash grant approach
Information dissemination and feedback loops
Complaints mechanism usage and effectiveness

Every interviewee was able to state what the objectives of the ORS programme were; likewise, all interviewees felt that it had met those objectives. Also, many recipients had spent time and sometimes money personalising the buildings inside or out with decoration or shelving. Also, although some buildings were obviously not used routinely, we were told that they were kept for guests, which means they were seen as being special and although shelters were given to nuclear families, they were often used as part of an extended families' collective accommodation.

It is also clear from the willingness of people to leave the fields in order to talk to the evaluation team and the level of engagement that people value the houses, though note the lack of lime used in repair plaster that might negate this position.

In total, 383 complaints were received for the 2011 response between September 2012 and January 2014. Whilst there is statistical disaggregation of the complaints received, there is no evidence of analysis or lessons learned. For example, although 71% of complaints concerned project activities there is no analysis of trends within these complaints and it is therefore impossible for the programme to learn from them accordingly.

***Photo 13**, Decorated house in the Village of Abdusattar Nizamani*

Details of the complaints process were everywhere, with business cards and even some posters still on view and people all knew about the process. However willingness and ability to use a process was more mixed. For example, the toll-free number was only toll-free for landline phones and not mobiles, which are how many people would communicate. Plus, reports were received that some people were told by Implementing Partner

organisations that if anyone complained they would cancel their shelter. To counter this, the close proximity and regular visits of IP and IOM staff, meaning that they could answer questions and address some issues, probably prevented some issues from becoming complaints. Culturally, all beneficiaries live in a deferential and feudal society and people tend not to complain about those in power over them. Plus global experience, from the Shelter Project, says that women are less likely to use phones and prefer face to face complaints mechanisms. The evaluation team believe that these factors probably combine to explain the low number (1.7%) of complaints against the number of shelters built. IOM stated to the team that, as a lesson learnt, FGDs were piloted and are now a part of the 2012 ORS implementation.

However, it is not clear what else could or should have been undertaken, except perhaps there should be more education about the process overall and the rights of people within the process.

A number of negative issues were raised with the evaluation team, namely:

There were some examples reported to the evaluation team of the usual over-promising with many Implementing Partners making promises about additional interventions, such as schools and water for example. These were not kept and even if made in good faith it is basic practice not to make promises that are not certain. There also seems to have been no follow up by IPs, post the completion of construction. Some of IOMs Implementing Partners did make decisions about materials use for example (timber replacing bamboo) without reference to IOM or the Heritage Foundation. It was felt that they did not correctly interpret the push for new sustainable materials and the opportunity the programme represented to demonstrate either their value or the consequences of doing so for the programme as a whole.

A number of families in a number of villages reported that they didn't have enough space, but this was always due to a large family size, reportedly of eight or nine members. There seems to be no policy position on large family sizes within ORS. Only in one village, Peru Lashari, did participants with larger families report that they had constructed bigger shelters, with a double pitched roof, as they needed the extra space. They reported selling cattle to cover the additional costs. This village also said that additional space was needed as women cannot live with their in-laws. Interestingly, this village, which has 45 ORS buildings constructed and also put additional money into larger buildings, also has families that could not afford doors and windows due to insufficient funds[8].

One village said that lime-reinforced mud was a good building method, referencing the local train station that had been built by the "ancestors" and was still standing (Abdul Sattar Nizamani). Most beneficiaries (over 95%) had taken to a single design, with a single pitch roof being the most prevalent. In one village, however, they had constructed 3 double pitched dwellings, 12 single pitch and 17 *chowra* (round models). It is also worth noting that in this village, 3 single pitch houses and 8 *chowras* had been abandoned due to termite infestation and they were no longer considered safe, though they were all still locked up. People had moved in with family and some were now back in shelters. (No prospect of repair). However even in these circumstances ORS process was seen as a success.

***Photo15**, Termite damage to chowra-roofed shelter in the village of Mohammed Hassan Kapri*

8 This further illustrates the issue of a wide socio-economic set of beneficiaries receiving ORS shelters and hence brings into question the efficacy and appropriateness of the targeting process.

4.4.8 Gender Mainstreaming

Women's contribution to the programme and specific impacts on gender equity.

Women and children bore a lot of the responsibility for construction. There were many instances of miscarriage attributed, by people themselves, to the construction activities, especially the carrying of heavy weights. There is no way of telling if this is correct but people certainly believe it to be so. Also the evaluation team were given some anecdotal reports of children being neglected and underfed as a result of construction activities. Older women complained about the roof work and there were some reported instances of people falling from the roofs.

There seems to be no change in the opportunities for most women or in the division of labour going forward. Only one woman was reported to be now earning an income as a mason as a result of ORS. Indeed, the traditional role of women as the builders within the family seems only to have been strengthened and they had to work harder on the ORS programme, rather than labour having been more evenly divided between women and men, and opportunities for women developed.

5

Conclusions

5.1 Meeting the objectives of the 2011 SOF

The strategic objective defined by the Cluster in the 2011 SOF, which was to provide more resilient low cost shelter, has clearly been met.

Likewise, the strategic outcome defined by the Cluster in the 2011 SOF, which was to provide access to shelter with sustainable (durable) solutions has clearly been met. However, the issue of programme coverage at just 1.5% of the total potential case load remains an issue. That said, the programme has clearly, and as successfully as is reasonable to expect, balanced coverage with the cost of each shelter.

In its turn, the principle set out in the Shelter Cluster approach to focus on early recovery through basic shelter support has also been met. It is of note that the ORS shelters are permanent structures, at least as far as the beneficiaries are concerned. They have made significant time and occasional significant financial investments, in doors and windows or paid labour, and clearly do not want to see them replaced in the foreseeable future.

5.2 Approach

The approach used was clearly successful and set the foundations for the large scale programme. The main factors that contributed to that may be considered to be the following.

- The understanding and appropriate action to engage the different stakeholders and actors within government and the humanitarian sector whose opinions need to be accounted.
- The use of a Pakistani 'champion', in the form of the Heritage Foundation, to provide a local face and argument in favour of the programme.
- Having a clear vision across senior actors such as DFID and IOM, the Cluster enabled the process and technology to be effective within the ORS programme.
- The use of DFID as a catalyst to bring together influential and capable implementers, Heritage Foundation, HANDS, IOM and Strawbuild combined theory and practice, as well as bringing together a series of capacities and capabilities into an operational whole.

5.3 Process

The process supported the approach, or was enabled by it, if one prefers. However, in its own right the process was pivotal to success and the following features are the conclusions that can be drawn from the overall process.

- Learning from previous programmes, their successes and challenges, improved the efficacy of the programme.
- The evolutionary changes made allowed the large scale approach to work, such as the development of the roof.
- The programme was run on the basis of minimal external inputs, as a cash and training programme, allowing the programme to operate at scale and efficiently.
- To enable the programme to be truly replicable, the relevant documentation needs to be gathered in a single place and be made available to a wide national and global audience.

5.4 Conclusions drawn from the IOM EQs

These questions are the ones explicitly asked by IOM of the evaluation and are contained in the Scope of Works. The following more detailed conclusions support the initial statement made in answer to each question and comprise the learning, as determined by the evaluation team.

5.4.1 Impact of the cash approach

The cash approach combined with the training provided an effective and efficient way of managing, overseeing, supporting the building of the ORS shelters at scale and reasonably ensured quality levels.

This is supported by the following.

- Both at the strategic level and the operational level, the grant was well set to enable people to build and complete ORS shelters.
- Solid lessons have been learnt from other programmes in other sectors and transferred successfully to the ORS programme.
- The evidence collected during the evaluation demonstrates that the size of the grant was set at a correct level for the majority of beneficiaries to be able to construct a shelter to the ORS designs and use the ORS approach and techniques.
- The money was not used for other activities, as far as the evaluation could determine. Where there was the potential for savings, these were spent on doors or windows, or hiring labour to undertake or assist with the construction.
- However, the programme has not been a catalyst for wider developmental or transitional activities, as was the intent. That said, the programme has increased a sense of wellbeing for many beneficiaries.

5.4.2 Livelihoods demands vs programme implementation requirements

The labour load required was significant for many people and, despite the original intent of the programme to avoid periods of high labour demand in the agricultural cycle, was not achieved in many instances. So, in effect, the programme imposed a timetable upon people, rather than the other way around. The labour demands were universally seen as worth it, however.

In addition, the evaluation concluded the following.

- Women took on the bulk of the additional workload and other activities suffered for it.
- It is clear that ORS beneficiaries came from a wide set of socio-economic circumstances, both in the range of family circumstances within villages, and in the socio-economic standing of villages themselves. This raises issues with the quality of targeting.

5.4.3 Local procurement (use of local markets)

Local markets were used where possible but some communities had to travel to adjacent Union Councils or cities for some materials.

Also:

- committee-led bulk procurement on behalf of all those constructing ORS shelters in a village seems to be the most prevalent way of working and the most satisfactory, in terms of avoiding high costs and keeping transport costs down; and
- advice is needed on cost-effective termite proofing techniques.

5.4.4 Training satisfaction and effectiveness

There was no common issue raised about the training, so overall it served its purpose of enabling the building of the ORS shelters to time and to quality.

The following conclusions can, however, be drawn that qualify the statement above.

- Working directly with the communities to plan training meant that training was better attended. That said, this only appears to have occurred in about a third of villages. As an indicator for good community engagement, this is a concern, and IOM should consider closer monitoring of the quality of community engagement.
- Training needs to be tailored for the abilities of the audiences and delivered by staff trained to train and who are familiar with the terms and processes.
- Practical training, especially building a demonstration shelter, seems to have been the most successful training model used.
- The effectiveness of training needs to be evaluated against the transfer of knowledge and not against simple attendance.

5.4.5 Disaster risk reduction impact

The technical DRR features, plinth, lime stabilisation and improved roofs, were built into the designs offered to communities and the technical oversight has ensured that these were incorporated into the actual buildings constructed.

To that extent, the majority of the DRR impact was achieved. The total potential DRR impact has not been achieved, however, for the following reasons.

- There was no large scale replication reported and hence the programme has not been a catalyst for wider change.
- No change in attitudes to construction practice can be claimed, so far as can be seen from the lack of the use of lime in repairs. However, the wide variation in maintenance requirements reported probably shows that the life costs of the ORS building system have not yet been fully appreciated.
- The beneficiaries do feel safer in the ORS shelters than they did previously, which has significance in a sense of well-being, but also in supporting the opportunity for replication.
- Maintenance requirements seem to be highly variable, with some reporting higher workloads than before and others saying it is remarkably less of a workload. This would lead us to the conclusion that follow-up on maintenance regimes would make the most of the initial investment, as well as ensuring the longevity of the structure and its continued resistance to flood.
- Additionally, the general return to the use of plaster with no lime stabilisation during maintenance, when combined with the absence of lime as a stabilisation agent in those few houses that have been built by others along the ORS lines but outside the ORS programme, means that behaviour has not been changed. It is unreasonable to assume that behaviour that is ingrained over many lifetimes in the way in which things are done can be changed in a six-month programme. Again, to make the most of the current investment and ensure the DRR value of the process, programme follow-up should have been undertaken, or have been set within a broader ongoing developmental process.

5.4.6 Land and property

The evaluation picked up some abandonment, but this did not appear to be forced. Some landlord interference was encountered, but no examples of post construction evictions, though there were many rumours.

Given the feudal nature of society in the programme area and in Sindh province in general, it is inevitable that some interference happened. It is also inevitable that a set of visitors will struggle to pick many issues up. This is as true for the evaluation team as it is for IOM, and also probably for the implementing partner. It is the contention of the evaluation that the following assisted in reducing the external and unwelcome impact of landlords.

- The decision by IOM not to engage landlords seems to have borne fruit, although some disincentives were put in the beneficiaries' way by landlords.
- Ownership of the ORS shelter is clearly felt to be with the beneficiary, as witnessed in case study D by their taking their roof with them when relocating. The roof was the only transportable element of the few houses encountered that were left unoccupied.

5.4.7 Beneficiaries' satisfaction

The ORS is seen clearly as of high value and there was a high level – almost universal – of appreciation of the programme and its outputs.

The additional workload was at times critical for many people, but the programme and the shelter are perceived as worth the time invested.

The process and level of engagement in the community has paid dividends in the engagement in the process. Where issues did occur, such as lack of attendance in training, greater community engagement sorted the issue out.

The complaints process was clear to all beneficiaries we spoke to. However, the evaluation team considered that the nature of society, especially for women, means that it is unlikely that people will complain, as the consequences for them may well outweigh any benefit. It is felt that the opportunity to remark to an independent person should have been considered to overcome this clear and understandable hesitancy of people.

There were some reports of oft-repeated mistakes, such as over-promising on additional inputs into the communities. This probably indicates a need to train IP staff more thoroughly in basic developmental and humanitarian processes.

5.4.8 Gender mainstreaming

It was entirely predictable that the programme would add considerably to women's workload, who are traditionally responsible for construction. There was no explicit intervention within the programme that sought to mitigate the labour load on women.

5.5 Meeting the objectives of DFID lessons learnt

DFID have a series of five points that they wanted to see addressed in the programme.

5.5.1 "Promoting environmentally sustainable construction material"

This was undertaken by the use of local materials, improved by lime and the use of bamboo which is more sustainable than wood.

5.5.2 "Community ownership and transfer of cash and management to the beneficiaries"

This was clearly a success, as proven by the decoration of shelters, as well as the references in FGDs to how happy people are and how they now feel better, in terms of wellbeing, and more able to deal with other issues. The team also received, as did IOM via the complaints mechanism, very few complaints about money and retention by the Focal Point or the IP.

5.5.3 "Work with the wider civil society organisations local to the area"

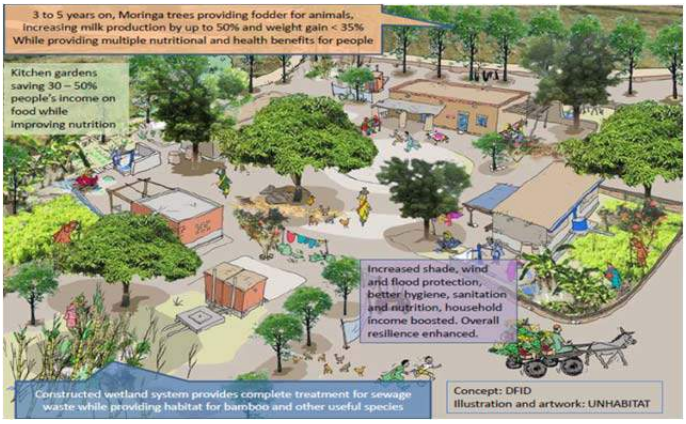
The IPs used originate from within Pakistani and Sindhi civil society , though with no further developmental activities being undertaken in the area and with the majority of IPs shifting operations to North Sindh in 2014, many but not all the lessons will be lost in South Sindh. It is these people and NGOs that will remember this programme, the key messages and principles and the training standards.

5.5.4 "Incorporate building knowledge and experience from the past that have proven to work well"

This has been achieved with the addition of lime in construction. The lack of the use of lime in maintenance, however, will undermine critically the long-term effect.

5.5.5 "Recognise that the construction industry – and the vast majority of the aid industry – is stuck in outdated and inappropriate thinking regarding shelter, housing, community design and energy"

There was recognition by IOM and the Heritage Foundation that the construction industry and aid community were not fit for the purpose of supporting low-income shelter, as evidenced by the adoption of lime and bamboo. For this to have a lasting impact, both industry and aid agencies will need to see formal recognition, ideally involving government at policy level, in addition to a sustained programme that will enable businessmen and agencies to make the necessary investments and adjustments, as well as to see returns on their investments.



6 Recommendations

The recommendations below are structured into strategic (6.1), process (6.2) and technical (6.3) sections, however all are interrelated and inter-dependent, and so should be considered together.

6.1 Strategic recommendations

6.1.1 The inclusion of the ORS programme within the National Disaster Risk Reduction Policy, or the development of a linked flood early recovery policy for Pakistan, supported by implementation resources

Since 2010, the flood shelter responses have been considered individually, even though they often overlap in time, if not always in specific geographic area. Currently, 'ownership' of the ORS process rests in part with IOM and in part with the Pakistan Shelter Cluster, rather than offering a recognised and dynamic common national approach to flood response.

Given that the nature of the hazard means that floods will continue to reoccur, consideration should be given to the inclusion of the ORS programme within the National Disaster Risk Reduction Policy (NDMA with UNDP, 2013), or the development of a linked flood early recovery policy for Pakistan, incorporating the cumulative lessons learnt from past responses. Such a policy addition should include common tools and resources, to support implementation:

- a mechanism to capture future lessons;
- process and technical toolkits to support the consistent use of these lessons (see 6.2 and 6.3);
- a common inter-stakeholder knowledge platform, to contain these lessons, designed to support and be accessible by each stakeholder group, including Government at every level, donors, aid agencies and populations at risk;
- a common inter-stakeholder database, to support the implementation of the above; and
- a common strategic shelter DRR objective, including goals and indicators, within the broader development policy of Pakistan, linking humanitarian and developmental processes and capacities.

The impacts of this approach would include:

- more coherent preparedness planning;
- easier coordination and faster initial response;

- clearer messaging to donors, to improve the consistency of support;
- greater efficiency, as each response would build cumulatively the risk reduction of villages, which can then be monitored, in order to improve the policy, but which can otherwise be considered resilient;
- easier collective learning from individual responses by agencies, to be subsumed into process, when supported by knowledge management;
- sustainable change in the capacity of the construction industry, to support implementation; and
- sustainable change in the approach of Government and aid agencies.

6.1.2 The development of ORS into an integrated multi-sector settlement programme at community level

The opportunity to use the good will that has been generated by the programme has been lost by ORS being a stand-alone programme. ORS should be developed with communities into integrated projects and programmes, combining WASH and food security elements with settlement planning and communal service infrastructure investments, such as drainage reservoirs or channels.

The opportunity provided by the ORS process offers the community engagement and mechanisms for integrated programming. Single-sector programming should be avoided, as it requires the duplication of these processes and is inefficient in the use of the villagers' time.

One example of such an integrated approach has been elaborated and implemented by the Heritage Foundation (see Appendix D).

6.1.3 The on-going implementation of ORS programming between flood responses

The on-going implementation of ORS programming, even with low-level activity, should be undertaken between the each flood response, driven by a wide ranging, community-led, multi-hazard risk assessment.

The impacts of this approach would include:

- sustainable change in the construction practices of communities at risk, leading to greater replication;
- sustainable change in the capacity and approach of Government and aid agencies;
- sustainable change in the capacity of the construction industry, to support implementation;
- the development and consolidation of pre-agreed processes with supporting commercial organisations, especially banks;
- an on-going model supporting more consistent donor support, easier coordination and faster initial response to new flood events; and
- on-going collective learning from individual responses by agencies.

6.2 Process recommendations

6.2.1 The development of a process manual and toolkit

Key to the future successful use of the ORS approach is the quality of support to replication and on-going learning by Government and aid agencies. The balanced or holistic approach, with as much emphasis on the process as on the technical design, should be taken forward at the operational level, as well as at policy level.

Alongside the technical manual, a process manual and tool kit should also be developed, as they are both of equal value to ensuring success of the programme. These should be inter-stakeholder, commonly owned in Pakistan, and include but not be limited to:

- a community engagement system;
- community selection processes and checklists;
- an IP selection system;
- training forms;
- payment and money transfer mechanisms, such as understanding banking charges; and
- forms, memoranda, contracts, reporting process and templates.

A commonly owned knowledge management platform and an interagency database should be developed or used to support the above. The platform should also include the database issued by Arup to IOM as an Excel file (Ref: 131213_Arup Shelter Database Southern Pakistan.xls) containing the 767 documents received from the shelter agencies which Arup contacted directly, as part of their 2014 study.

6.2.2 The most successful components of the ORS process should be identified, supported and consolidated

Complementing research into technical good practice, the successful components of the ORS process should be identified, supported and consolidated. These include the following.

- The community peer pressure process, whereby all houses in a community had to have the building phase (plinth, walls, roof) completed before the next tranche of funding was released, which had a major contribution to the end result of the programme.
- Borrowing peer pressure and FP concept from micro-finance, which offers a good example of cross-sectoral learning.
- The use of local solutions and local actors to champion the process with local government.
- The level of community engagement in the execution of the programme, such as determining training times, which should be increased and monitored.
- The clear vision and the success at both strategic and implementation levels should be included in any future programme in Pakistan, and to inform similar activities globally.

6.2.3 The least successful components of the ORS process should be reviewed and improved

The least successful components of the ORS process should be identified, supported and consolidated. These include the following.

- In order to mitigate increases in women's workload, mitigation measures should be developed, such as including activities aimed at behaviour change throughout the programme. Women should be engaged as a separate group.
- Building upon the Monitoring, Evaluation, Accountability and Learning ('MEAL') system, a rights-based approach should be adopted for community feedback, especially when considering specific issues, such as complaints in a deferential or feudal culture.
- Villagers should be able to set their own timeframe for implementation, in negotiation with donors and IPs, to avoid peak labour demands of the farming year.

6.3 Technical recommendations

6.3.1 The review of ORS maintenance at community level

All of the achievements of the ORS programme will be lost unless maintenance (which retains the DRR features of the shelters) is reconsidered urgently. This would include why lime plastering is not being undertaken currently, as part of maintenance, as well as the identification and dissemination of cost-effective methods of protecting against termite attack.

The review should involve a detailed survey of why communities do not incorporate the DRR features of ORS in their maintenance, along with forming understandings of materials supply and logistics constraints.

Continued engagement with beneficiaries after the build would:

- make the most of the investment to date;
- ensure the value of the ORS programme and its DRR features beyond initial maintenance;
- engender sustainable behaviour change; and
- build upon community good will for further interventions, landlords permitting.

6.3.2 The review of replication at community level

The significant opportunity offered by ORS to replication, where new shelters unsupported by response programmes are built using ORS principles, is currently wholly missed.

In order to support a sustainable change in behaviour, a review should be undertaken involving a detailed survey of why communities do not incorporate the DRR features of ORS in their new shelters. An understanding should be formed of how they currently build and why, so that valuable construction practices may be integrated into a diverse range of ORS-compliant shelter models and more accurately reflects local variations in materials availability and culture.

6.3.3 Further technical studies

Implementation resources to support the inclusion of the ORS programme within the National Disaster Risk Reduction Policy, or the development of a linked flood early recovery policy for Pakistan (6.1.1) should include the development of a process manual and toolkit (6.2.1), but also clear technical guidance that identifies clearly why which approach is best suited to each community, as well as how to capture and incorporate on-going technical learning from affected households.

The evaluation recommends that going forward, building upon the first study by Arup, further technical studies should be undertaken. A focus is needed upon how to achieve the construction of shelters at scale, rather than only providing design blueprints. This should include examining the overall support processes, as well as the industrial and supply capacity needed to enable both implementation and replication. In addition, consideration should include the following.

- How to increase confidence over time in new materials and techniques, such as bamboo and lime, which again increases the probability of replication (7.3.2) and requires continued engagement with beneficiaries (7.1.3).
- How to optimise maintenance, especially of the DRR components of ORS.
- The fixing of composite bamboo *karavan* roof beams with galvanised wire, which appears not to be sufficiently strong for the purpose intended. The overall process is a straightforward, requiring no special tools, however it does require artisan skills and training, which require monitoring.
- Further guidance on the protection of shelters from termite attack, such as through the use of used engine oil, termite shields, or impervious layers within the wall construction.

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Note on knowledge management

All of the documents identified and referenced through the evaluation have been uploaded to or found on the 'Humanitarian Library', http://humanitarianlibrary.org/, a resource developed by Shelter Centre with funding from USAID, ECHO and DFID, which contains documents from numerous agencies. Further to the conclusions and recommendations related to knowledge management, the Humanitarian Library offers an example and one option to support future responses in Pakistan and worldwide.

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Appendix A

Scope of Works

Scope of Work ORS Evaluation

Purpose
Carry out an evaluation of the One Room Shelter Program which was initiated to support the affected population of South Sindh in response to the 2011 floods in Pakistan. The main purpose of the evaluation is to provide insight on the effectiveness, efficiency and appropriateness of the shelter program of IOM against its core objectives.

Background
Severe and widespread flooding in Sindh affected an estimated 5.5 million people during the 2011 monsoon period. Initial assessments found that Umerkhot, Sanghar, Mirpur Khas and Khairpur had the higher average of spontaneous settlements and interviewees indicated significant needs for shelter, kitchen sets and blankets, particularly in spontaneous settlements. In such sites, 82% of the families required shelters. Relatively high numbers of female headed households and/ or children were encountered; 23% of all families in the assessed temporary settlements were headed by women.

Following the strategy successfully developed for durable shelter solutions using vernacular construction methodologies, IOM Pakistan has accomplished the construction of 22,900 units in South Sindh in response to the 2011 floods.

Objectives of the Evaluation
IOM seeks to engage the services of an organization to carry out a post program evaluation focusing on the following key areas of program action and impact.

1. **Impact of the cash approach**
   - Impact of the grant on families' daily economy
   - Savings and its use (Case Studies)
2. **Livelihoods demands VS Program implementation requirements**
   - Time usage and division limitation and success
3. **Local procurement (use of local markets**)
   - Challenges and solutions for beneficiaries and community
   - Material availability and quality
4. **Training satisfaction and effectiveness**
   - Knowledge transfer process
   - Mentoring evaluation impact
   - Construction practices changes
   - Safety perceptions by BHH
5. **Disaster Risk Reduction Impact**
   - Replication within communities (Case Studies)
   - Change in attitudes and practices on shelter reconstruction
6. **Land and Property**
   - Restrictions to shelter reconstruction (Case Studies)
   - Forced evictions and shelter abandonment (Case Studies)
7. **Beneficiaries satisfaction**
   - With the overall program
   - With cash grant approach

- Information dissemination and feedback loops
  - Complaints mechanism usage and effectiveness
  - Feedback and response support by IP
  - Feedback and response support by IOM team

8. **Gender Mainstreaming**
   - Women contribution to the program and specific impacts on gender equity

The final evaluation report will be shared with all relevant stakeholders and donors this should also include a description of the program findings, lessons learnt, achievements and a compilation of relevant case studies.

Target Areas
Indicative program target areas comprise of the following five districts:

1. Badin
2. Tando Muhammad Khan
3. Mirpur Khas
4. Tharparkar
5. Umerkot

Proposal Submission Package
1. Cover Letter
2. Past experience of organization in similar evaluations
3. Evaluation methodology focusing on objectives outlined above
4. Detailed Budget
5. Timeline/Work Plan
6. CVs of core staff that will be employed for the evaluation

Deliverables
The shortlisted organization will be expected to deliver the following:
1. In consultation with IOM organize a program review meeting to define strategic note for development of evaluation
2. Inception report soft and hard copy
3. Collection of data (raw data should also be made available for the use of IOM in a data collection report both in soft and hard copy)
4. Draft report
5. Organize project review meeting to present the draft report to key IOM program management team
6. Final report in consultation with IOM and in line with the 2nd project review meeting

All proposals should be submitted no later than 20th April 2014

Appendix B

List of villages surveyed and dates

Date 2014	*District*	*Team A Village*	*Team B Village*
23rd November	Tando Mohammed Khan	Abdusattar Nizamani	Jan Mohammed Nodkani
24th November	Badin	Ambo Koli	Zubair Otho
25th November	Umerkot	Ali Mohammed Talpur and Pandrio	Mir Mohammed Ali Khan
26th November	Tharparkar	New Abad	Fotojogi
27th November	Mirpur Khas	Atta Mohammed Laghari	Mohammed Hassan Kapri

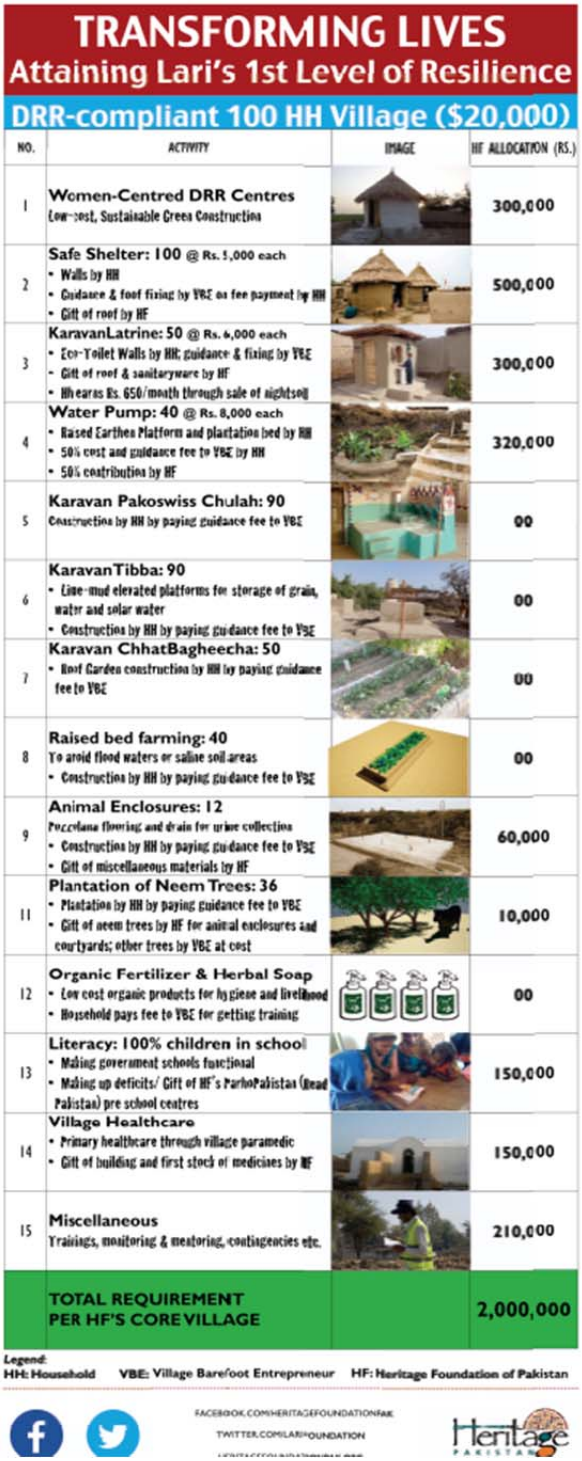
Appendix C

List of key informant interviews

Date 2014	*Name*	*Organisation*
14th October	Hayley Gryc	Arup International Development
22nd October	Annette Hearns	UN/OCHA
22nd October	Enrico Ponziani	IOM
22nd October	Joseph Tritschler	OFDA
22nd October	Ali Gohar Khan	OFDA
23rd October	Junaid Akhlaque	PDMA
23rd October	Adnan Ahmed Memon and Avais Memon	Management and Develop Foundation (MDF), ORS Implementing partner
25th October	Deeba Pervez	IOM/IASC Shelter Cluster/Shelter Working Group
25th October	Yasmeen Lari Mariyam Nizam	Heritage Foundation, Director and Architect,
28th October	Brian Kelly	IOM
28th October	Steve Hutchinson	IOM
28th October	Hasballah	IOM
28th October	Ammarah Mubarak	IOM
28th October	Brigadier Sajid	NDMA
7th November	Magnus Wolfe-Murray Ariana Pelham	DFID Pakistan
18th November	Amina Saoudi	Previously 2011 shelter cluster coordinator, Sindh
21st November	Manuel Pereira	IOM
22nd November	Carlo Gherardi	Previously ORS project manager southern Sindh

Appendix D

Heritage Foundation summary DRR-complaint village plan



TRANSFORMING LIVES
Attaining Lari's 1st Level of Resilience
DRR-compliant 100 HH Village ($20,000)

NO.	ACTIVITY	IMAGE	HF ALLOCATION (RS.)
1	**Women-Centred DRR Centres** Low-cost, Sustainable Green Construction		300,000
2	**Safe Shelter: 100** @ Rs. 3,000 each • Walls by HH • Guidance & roof fixing by VBE on fee payment by HH • Gift of roof by HF		500,000
3	**KaravanLatrine: 50** @ Rs. 6,000 each • Eco-Toilet Walls by HH; guidance & fixing by VBE • Gift of roof & sanitaryware by HF • HH earns Rs. 650/month through sale of nightsoil		300,000
4	**Water Pump: 40** @ Rs. 8,000 each • Raised Earthen Platform and plantation bed by HH • 50% cost and guidance fee to VBE by HH • 50% contribution by HF		320,000
5	**Karavan Pakoswiss Chulah: 90** Construction by HH by paying guidance fee to VBE		00
6	**KaravanTibba: 90** • Lime-mud elevated platforms for storage of grain, water and solar water • Construction by HH by paying guidance fee to VBE		00
7	**Karavan ChhatBagheecha: 50** • Roof Garden construction by HH by paying guidance fee to VBE		00
8	**Raised bed farming: 40** To avoid flood waters or saline soil areas • Construction by HH by paying guidance fee to VBE		00
9	**Animal Enclosures: 12** Puccolana flooring and drain for urine collection • Construction by HH by paying guidance fee to VBE • Gift of miscellaneous materials by HF		60,000
11	**Plantation of Neem Trees: 36** • Plantation by HH by paying guidance fee to VBE • Gift of neem trees by HF for animal enclosures and courtyards; other trees by VBE at cost		10,000
12	**Organic Fertilizer & Herbal Soap** • Low cost organic products for hygiene and livelihood • Household pays fee to VBE for getting training		00
13	**Literacy: 100% children in school** • Making government schools functional • Making up deficits/ Gift of HF's ParhoPakistan (Read Pakistan) pre school centres		150,000
14	**Village Healthcare** • Primary healthcare through village paramedic • Gift of building and first stock of medicines by HF		150,000
15	**Miscellaneous** Trainings, monitoring & mentoring, contingencies etc.		210,000
	TOTAL REQUIREMENT PER HF'S CORE VILLAGE		**2,000,000**

Legend:
HH: Household **VBE: Village Barefoot Entrepreneur** **HF: Heritage Foundation of Pakistan**

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