



EVALUATION OF UN-HABITAT'S ROLE IN POST-DISASTER RECOVERY, RECONSTRUCTION AND DEVELOPMENT IN PAKISTAN, 2005-2012



Evaluation of UN-Habitat's Role in Post-Disaster Recovery, Reconstruction and Development in Pakistan, 2005-2012

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ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank	INGO	International NGO
AHKMT	Akhter Hameed Khan Memorial Trust	IOM	International Organization for Migration
AJK	Azad Jammu and Kashmir	Japan-ODA	Japan Overseas Development Authority
AKRSP	Aga Khan Rural Support Programme	KOICA	Korean International Cooperation Agency
BASF	German chemical company	KP	Khyber Pakhtunkhwa
CCB	Citizens' Community Board	LIMS	Land Information Management System
CERF	Central Emergency Response Fund	MIS	Management Information System
CNIC	Computerized National Identity Card	MOU	Memorandum of Understanding
CPM	Country Programme Manager	NESPAK	National Engineering Services Pakistan
CSO	Civil Society Organization	NDMA	National Disaster Management Authority
DCO	District Coordination Officer	NGO	Non-Government Organization
DFID	Department for International Development (UK Aid)	NOC	No-Objective Certificate
DLRR	Digitization of Land Records Revenue	NORCAP	Norwegian Capacity (capacity-building experts)
DRM	Disaster Risk Management	NSET	Nepali National Society for Earthquake Technologies
DRR	Disaster Risk Reduction	NWFP	Northwest Frontier Province (now Khyber Pakhtunkhwa)
ERRA	Earthquake Reconstruction and Rehabilitation Authority	OCHA	Office of the Coordinator for Humanitarian Affairs
ERWG	Early Recovery Working Group	ODA	Overseas Development Assistance
ESWG	Emergency Shelter Working Group	OP-2	One UN Programme, Phase 2
FATA	Federally Administered Tribal Areas	ORS	One-Room Shelter
GOP	Government of Pakistan	PDMA	Provincial Disaster Management Authority
GTZ	German Technical Assistance	PSFRP	Pakistan Settlements Flood Recovery Project
HRC	Housing Reconstruction Centres		
HSWG	Housing Sector Working Group		
IASC-CT	Inter-agency Standing Committee - Country Team		
IDP	Internally Displaced Person		

P-WOPS	Pakistan Water Operators Partnerships	UNHCR	United Nations High Commission for Refugees
RAHA	Refugee-Affected and Hosting Areas Programme	UNICEF	United Nations Children's Emergency Fund
ROAP	UN-Habitat Regional Office for Asia and the Pacific	UNISDR	United Nations Office for Disaster Risk Reduction (Secretariat of the International Strategy for Disaster Risk Reduction)
SDC	Swiss Development Cooperation		
SPA	Strategic Programme Area	UNRC	United Nations Resident Coordinator
UNCT	United Nations Country Team		
UNDP	United Nations Development Programme	VO	Village Organization
UNESCAP	United Nations Economic Commission for Asia and the Pacific	WASH	Water, Sanitation and Hygiene
		WWF	World Wildlife Fund
UNESCO	United Nations Educational and Scientific Organization	YAP	Youth Action for Pakistan

EXECUTIVE SUMMARY

I. INTRODUCTION

UN-Habitat has a broad record of achievement in Pakistan, beginning with the response to the earthquake of 2005 and extending through the floods of 2012. In addition to the sizeable disaster response that focused on massive housing and infrastructure reconstruction programmes in cooperation with Government agencies, it also handled a varied portfolio of more than 50 projects that dealt with land rights, basic services, sustainable urbanization and digitization of land data.

This evaluation aims to provide the organization and its stakeholders with a greater understanding of UN-Habitat's role in post-disaster recovery, reconstruction and development in Pakistan, through an independent assessment of its achievements, lessons and challenges and opportunities.

The evaluation is focused on the major programmes of the past few years, namely support for settlements flood recovery, rehabilitation of community infrastructure and facilities, and a One UN project, as examples of interventions. The evaluation assesses the performance of UN-Habitat based on a general overview of other project activities during the period.

II. METHODOLOGY

The evaluation involved document review, followed by four weeks of field work in the country that included site visits and key informant interviews with beneficiaries, implementing partners, peer and partner agencies.

III. KEY FINDINGS

Facilitating reconstruction after natural and man-made disasters has delivered the concrete results that governments, citizens and donors appreciate and UN-Habitat has physical evidence of its presence through houses, community infrastructure, water and sanitation and data management systems.

Earthquake Response

UN-Habitat gained a reputation as a competent technical partner for the Government of Pakistan and peer agencies after a 7.5 magnitude earthquake hit the regions of the Northwest Frontier Province and Azad Jammu and Kashmir with disastrous results.¹ Three and a half million people were affected over a 30,000 sq. km. area, with 75,000 persons killed and more than 600,000 homes destroyed².

Nearly-inaccessible terrain and a harsh winter climate made recovery efforts difficult. The Government created a specialized agency, the Earthquake Reconstruction and Rehabilitation Authority, backed with military resources, to assess needs and lead the recovery. This partnership proved successful, leading the Government, donors, and technical experts to agree to a reconstruction process based on owner-built homes in rural areas.³

In 2008, it also took over the inspection regime from the Pakistani Army, to insure homeowners were paid in instalments according to their compliance with the earthquake resistant building guidelines. In cooperation with the Army, UN-Habitat field staff inspected more than 92,000 of the 430,000 homes which were rebuilt, approving them for completion certificates.⁴ Those beneficiaries are recorded in a database set up by the UN-Habitat Pakistan Office's IT unit.

In addition, UN-Habitat produced several technical manuals on the construction process and the type of building materials that could be used in accordance with seismic standards and in consideration of vernacular architecture.

1 *NWFP, the Northwest Frontier Province, has been renamed Khyber Pakhtunkhwa or KP.*

2 *Some UN-Habitat reports refer to more buildings damaged, and the numbers are not consistent in UN-Habitat documents. This report will use the numbers agreed by current UN-Habitat Country Office management.*

3 *The former Chief Technical Advisor, Ms Maggie Stephenson, calculates that UN-Habitat centres trained more than 250,000 people in construction techniques, as builders and home-owners both needed to be informed about the standards.*

4 *Some UN-Habitat sources say 200,000 were inspected, as some were done in coordination with the Pakistani Army.*

The Technical Adviser was commissioned by the World Bank to write a Toolkit for earthquake reconstruction methodology, confirming a process that was recognized as Best Practice in disaster reconstruction.⁵ UN-Habitat also assisted the government in two projects to help the landless and virtually landless, leading to the purchase of land for homes of 14,355 families.

Therefore, UN-Habitat demonstrated the value of working with communities in owner-driven reconstruction and the need for extended periods of available technical expertise to increase the capacity of local people to help themselves. UN-Habitat's training and oversight, as well as its role in an inspection regime that enforced compliance for building standards, were areas of best practices and lessons from disaster management.

After the earthquake response, disaster management was transferred under the authority of provincial Government due to decentralization. The centralized command of the military working through the Earthquake Reconstruction and Rehabilitation Authority would no longer be present. Instead, the National Disaster Management Authority plays a coordination role, deferring to the provincial offices of the Provincial Disaster Management Authority⁶, allowing local political interests to influence decisions in risk management and resource allocation pertaining to disasters and development.

Flood Response

In 2010, severe monsoon rains led to the dual disasters of heavy flooding and mismanaged waterways, whereby protective bunds were removed to divert flood waters. The worst floods in the country's history affected 20 million people over 100,000 sq. km., mostly in Sindh, Punjab, and Baluchistan. At the time of the evaluation, UN-Habitat reported that it, coordinating with the National Disaster Management Authority, and with funding from the Japanese Government, had mounted projects to help communities rebuild, resulting in 32,466 shelters, 22,000 latrines, 1,400 hand pumps, 605 rehabilitated hand pumps, and other community infrastructure projects. With support from the British Government's Department

for International Development (DFID), UN-Habitat oversaw construction of an additional 3,781 shelters in Sindh.

More than 800,000 households lost their homes, and fewer than 20 per cent of the people rendered homeless were helped. A disaster covering such a vast area seemed to suggest again that an owner-built solution might work best. However, the Pakistan Government's attempt to provide subsistence support by transferring money directly through Watan cards in instalments to those affected did not lead to the reconstruction of shelters.⁷ To meet the urgent need for housing reconstruction, donors invested USD400 million in early recovery shelters, which might have been enough to enable most of those affected to build a mud-brick shelter. However, most of the money was spent on subsistence and only one out of ten recipients actually used it to build homes.⁸ Therefore, another strategy was devised involving 50 development agencies and NGOs to rebuild houses and infrastructure. Together they built 160,561 shelters over a two-year period.⁹

The annual monsoon of 2011 led to another disaster, this time in Sindh and the Punjab, as torrential rains hit the area and devastated many of the adobe (sun-dried mud brick) homes under reconstruction after the 2010 floods. The response from UN-Habitat included community-driven building of shelters and settlement infrastructure. The community-based reconstruction process, which worked through local groups, revealed some weaknesses during implementation.

For example, the selection process agreed with the provincial governments limited the number of extremely vulnerable¹⁰ included and required other beneficiaries to contribute 50 per cent towards the construction of their house. As poor people who had no salvaged materials and little to offer but their own labour, they ended up selecting the least expensive construction material, even though it lacked durability in a region inundated with rain and standing floodwater.

5 The publication ended up more a history of the Earthquake Reconstruction and Rehabilitation Authority.

6 I.e. the State Earthquake Reconstruction & Rehabilitation Agency (SERRA) in Azad Jammu and Kashmir.

7 The Watan compensation was not intended to recover shelter or housing damages, according to IOM Information Material. Provincial Disaster Management Authority said people were not obligated to spend their allowance on housing.

8 According to DFID.

9 According to the Housing Early Recovery Working Group.

10 Extremely vulnerable person defined as disabled, old person, sick, child head of family, widower, etc.

It also raises questions about the costing process in a plan that offered different options of building materials—piled mud, sun-dried mud brick, fired mud bricks with mud or concrete mortar and concrete blocks.

An allotment of PKR39,500¹¹ (nearly USD400), was estimated for each house and about half the value of the house, although piled mud houses are now being built in a trial project in Sindh for as little as PKR25,000.¹² UN-Habitat was meant to experiment with new technologies based on various local materials, including a model for a low-cost shelter, but the Evaluation Team did not see evidence of the latter.¹³

After the 2011 floods, UN-Habitat with CERF funding, provided transitional shelter of poles and plastic sheeting for 6,345 families as well as water and sanitation assistance in Sindh province. Tents were the standard emergency shelter, and UN-Habitat's contribution offered solutions that were still standing more than a year after the disaster. While questions were raised by UNDP and UNHCR as to whether UN-Habitat as a United Nations agency, should serve as sub-contractor for another, UN-Habitat was able to offer the technical skills and procedural oversight which local contractors and many NGOs were not able to provide.

Indeed, the lesson for UN-Habitat and other agencies should be to identify the best materials and methods of construction depending on the risk, and to take individual vulnerabilities more into account when offering reconstruction options. There is an ongoing debate amongst donors and development agencies as to which construction methods and materials are best suited to individual regions and the risks they face. UN-Habitat should be an active participant in that debate, as the lead technical agency for human settlements.¹⁴

Not all tenants are long-term but for the long-term tenants the concern over the durability of the

shelter is a genuine concern. Quality of construction and oversight versus quantity of shelters provided was a recurring issue.

Moreover, the use of latrines was not a practice easily introduced in some areas, leading to poor or no construction or lack of use. Communities tended to share latrines so they did not need one per shelter, and they used the extra ones for storage. This raises questions about the extent to which the consultation process and the assumptions made for social mobilization were valid. UN-Habitat should do an assessment to document how the construction of the latrines contributed to alternative sanitation and hygiene practices, to provide evidence to back up the theory and assumptions.

Moreover, some villages did not have the water supply needed to make use of the latrines. Their priority was a water supply. UN-Habitat said they had to install latrines because the aim was behaviour change away from open defecation but the participatory process was meant to consult with communities to align their priorities with available resources. It was agreed with the Government of Japan that latrines would be included as part of the UN-Habitat project's integrated rebuilding approach, while DFID focused on shelters and did not include latrines in its projects. In general, more preparation and oversight could have helped to identify and avert waste in implementation.

In addition, the community-based organizations that led the reconstruction process were in some cases not competent to do so, and more capacity building and oversight is needed in order to assure they follow proper procedures. A few—especially in Baluchistan and northern Sindh—were headed by landlords, which made the community-based organizations' tenant members beholden to their decisions and undermined UN-Habitat's participatory process.¹⁵

Capacity assessments should have been conducted of community organizations and local NGOs to identify if there were reliable partners who could deliver quality construction in a timely way. In some areas there were none. Creating successful community-based organizations offers sustainable benefits; UN-Habitat should review the performance of its community-based organization partners to determine how they fared and what additional resources they could have used.

11 In Khyber Pakhtunkhwa, the allotment was PKR55,000 per shelter.

12 This is a DFID-funded effort, with IOM and ACTED as implementing partners. UN-Habitat disputed these figures and the Evaluation Team did not visit the project.

13 The project document mentions that in Punjab UN-Habitat was "...presently testing the best response with national and international specialists with regard to adobe building. It is also undertaking a test project, of a very low-cost shelter".

14 As the chair of the Housing Working Group and previous chair of the Shelter Cluster, UN-Habitat should have key input.

15 Some form of the People's Process.

A shared implementation modality, successfully demonstrated in the CERF projects, where UN-Habitat staff led the rebuilding as trainers constructing model homes alongside community residents, should replace community contracting in places where capacity is unproven.

Likewise, homeowners needed more information about the risks and benefits of their reconstruction choices so that they could take informed decisions ensuring disaster risk reduction. UN-Habitat favoured fewer disaster risk reduction standards (though all necessary disaster risk reduction elements were included) in flood reconstruction in order to allocate funds for more shelters.

UN-Habitat, in the Pakistan Flood Settlement Recovery Project funded by Japan, was meant to build the capacity of the Pakistan Government in disaster risk reduction, including through the resettlement of inhabitants from hazardous areas. There was one such project identified that moved residents to higher ground but it was not suitable for duplication. For various reasons, including the preferences of the inhabitants and lack of available land, resettlement to mitigate disaster risk does not seem to be an option.

In the haste to set up field offices for a programme covering a vast area of Pakistan, the UN-Habitat Country Office also made mistakes in selecting some staff and training them in standard operating procedures. Half of the staff were new recruits and were meant to learn on the job from seasoned staff members. It is not clear if they had an intensive training session and focused mentoring so they could improve their capacity. In practice, inexperienced sub-engineers had too many villages to cover in order to be able to train villagers in better construction and identify mistakes to be rectified.

While donors wanted houses to be built within a year, adequate capacity building of communities in construction methods is long-term development work that takes time. Selecting fewer communities and offering them a technical advisor who could teach them planning, procurement, risk reduction and flood resistant building methods could have led to more quality houses and, perhaps, resilient communities.

In 2012, again the monsoon rains led to flooding in southern Punjab and Sindh provinces. After three consecutive years of such costly disasters, there is

reason to believe that standards for flood-resistant construction may gain predominance in some provinces the way that seismic-resistant shelters did in the earthquake zones. UN-Habitat should be prepared to meet future needs in identifying disaster risk reduction methods and offering training in improved and affordable reconstruction techniques.

Conflict Response

In addition to reconstruction, UN-Habitat undertook projects to provide both emergency and transitional shelter and build community infrastructure in areas affected by government counter-insurgency operations. The conflict between security services mounting operations against armed groups in Khyber Pakhtunkhwa and Federally-Administered Tribal Areas from April until June 2009 led to the displacement of 2.9 million residents, and massive destruction of infrastructure. The vast majority of Internally Displaced Persons (IDPs) found refuge with host communities in other districts. By September 2009, 1.65 million IDPs had returned home. As of January 2010, 350,000 remained in their host communities in Mardan, Swabi and Charsadda.

The prolonged presence of IDPs eroded the resilience of host communities, drained their resources and strained their public services. By December 2010, with USD3.46 million in funding from the Korean development agency KOICA, UN-Habitat undertook a variety of construction projects to upgrade existing infrastructure, including water and sanitation, roads, bridges and water tanks.

Host communities who had received the IDPs for months or years, benefited from many of these projects. The aim was to increase the capacity of some facilities, such as water sources, to meet the needs of the burgeoning temporary population, and also to compensate the host community for its generosity. The majority of projects helped IDP communities rebuild their damaged infrastructure once they returned home. In addition, in 2009 and 2010, UN-Habitat, in cooperation with UNHCR and with CERF funding, distributed transitional shelter materials to IDPs. Unlike UNHCR tents, this assistance included poles and plastic sheets with which displaced persons could build a more durable shelter.

Development Programmes

Beyond its crisis agenda, UN-Habitat in Pakistan works with six units to provide expertise for its development themes: Basic Services, Sustainable Urbanization, Land Tenure and Rights, Disaster Risk Management Technical Unit, as well as IT and Communications, which serve the other four.

Basic Services deals with water, sanitation, hygiene and behaviour change, involving women and school children as agents of change in hygiene promotion. The Sustainable Urbanization Unit has focused on solid waste disposal models, including recycling and composting. It has some pilot efforts in energy-efficient roofing.

The Land Tenure and Rights Unit developed a book and training manual on the law and it is educating legal professionals about how to apply the law. In a country where landlords continue to control large tracts of land—including those areas affected by floods—and where 70 per cent of the cases in the courts relate to land disputes, this is a salient topic.

According to the UN-Habitat Country Programme Manager, the objectives are:

- Enhance the capacity of government officials, especially those working in district and provincial revenue departments, through increased knowledge about land and property rights
- Raise awareness as to the importance of land interventions among development partners and humanitarian actors
- Assist law students in improving the capacity of the judicial system to handle land disputes by sharing practical experiences of UN-Habitat in the land sector.

The Disaster Risk Management Technical Unit oversees the disaster response programmes, and sets the construction standards and procedures. Staffed by senior managers present since the earthquake, it carries the institutional memory of the Country Office. Much of their work and experiences have resulted in guidelines and outreach material and have been recorded in databases of beneficiaries and records of community agreements.

The IT Unit developed specialized software used in two flood-affected districts of Khyber Pakhtunkhwa, Charsadda and Nowshera, by the authorities to digitize the land records left from the British colonial

era. With the help of UN-Habitat to train their staff, provincial Government Revenue offices will now have the old sketch maps converted into updated maps that are accessible by online digital records and the public can consult when they want to buy or sell their land. This should assist officials in their task of revenue collection and citizens in gaining access to their documents to avoid exploitation.

The Communications Unit helps to present UN-Habitat's work to the public with a series of films, short clips and publications, as well as books cataloguing technical standards in construction.

Therefore, UN-Habitat has a skills base and record of varied expertise that enables it to offer much to meet the needs of Pakistan as a developing country subject to varied disasters and development challenges. The combination of emergency response and development effort has been well-received by donors, who have contributed over USD100 million to UN-Habitat interventions since 2005.

Management Issues

The Pakistan office reported to the Regional Office for Asia and the Pacific in Fukuoka, Japan, which approved its programmes and projects. Most of the technical assistance offered by the Regional Office was in the earthquake response. For the flood relief, it did help with resource mobilization and had monitoring missions at least twice a year.

However, UN-Habitat Headquarters in Nairobi appeared to be detached from Country Office field operations. Most Headquarters staff interviewed were unaware of the activities of the Pakistan office, even when projects dealt with their areas of expertise. When told of the disaster response activities of the Pakistan office, the question was raised as to whether UN-Habitat should be engaged in such practical work, which the Evaluation Team found donors are keen to fund, rather than the theoretical, 'normative' work that is favoured at headquarters. It was also suggested that such emergency projects are not the primary mandate of UN-Habitat, as any development agency can do them.

Given that headquarters relies on core funding and cannot generate much donor interest for many of its programme areas, the UN-Habitat office in Pakistan—which transfers 7 per cent of the funds it raises to headquarters as

overheads—is better informed about the real needs on the ground. Donors are interested in practical results and real world applications. UN-Habitat was often a leader in the disaster reconstruction field, precisely because it understood the complexity of project execution.

Although UN-Habitat has adopted a reorganization strategy, it seems to veer away from what its field offices are actually hired to do as part of a One UN approach. How to revise UN-Habitat Headquarters' mindset and operations toward providing the contextual expertise needed to fulfill the requirements of developing countries remains a big challenge for UN-Habitat management in the future.

There is indication that staff at the Pakistan Country Office, with support from the Regional Office, will be able to continue their work in digitization of land records, capacity building for resilient cities, sustainable urbanization, and a disaster risk reduction agenda under the One UN (OP2) programme. However, the Country Office needs strong and capable leadership to win more donor support.

IV. CONCLUSION

The UN-Habitat Pakistan office has compiled an enviable record of achievement in a broad range of programmes, with support from the Regional Office. Although the Pakistan Country Office has a mixed portfolio, addressing emergency and recovery needs and integrating the development agenda of sustainable urbanization, it receives little support from headquarters for its experience in dealing with the real needs, issues and functions in the field.

The scale of its interventions varied according to the context. In the earthquake of 2005, UN-Habitat provided training and oversight in a centralized government-led programme that enabled homeowners to rebuild their houses. In the floods of 2010-2011, UN-Habitat oversaw construction of 37,000 shelters in a decentralized recovery process that varied widely between provinces. It focused less on training and oversight and more on logistical management of the construction of shelters and infrastructure.

However, inadequate assessment of the resources of the community and insufficient training and oversight meant that some shelters were unfinished or had flaws in construction. In development, UN-Habitat's projects are well-anchored with local governments and UN partner agencies for maximum effect.

UN-Habitat has accumulated skills and experiences that are likely to be in demand far into the future, as Pakistan's ongoing concerns with natural disasters, IDPs, and issues related to sustainable urbanization continue. The more UN-Habitat can become known for its technical expertise, especially in training and quality assurance of shelters and infrastructure, the more it will assure a place for itself as a leader in disaster response.

Donors have come to know UN-Habitat as a reliable partner with highly-skilled and experienced staff, and they will continue to work with the Pakistan Country Office in refining disaster response approaches and identifying mitigation strategies. A new programme for making sustainable disaster resilient and healthy cities and townships in the disaster prone regions of the country already promises to use capacity building of provincial institutions in support of disaster management and sustainable urbanization.

UN-Habitat in Pakistan has coordinated its activities well with other UN agencies in professional partnerships, demonstrating the value of One UN in settings where each brings a particular area of expertise. It also has gained the respect of donors and of Pakistan government interlocutors as an agency that is responsive to public need and adaptable to meeting new challenges.

V. MAIN LESSONS LEARNED

The observations are meant to have broader application within UN-Habitat, but the Regional Offices will need to give assurances that innovations are introduced into Country programmes.

1. Country Offices are where UN-Habitat proves its technical expertise and its utility, and makes a name for the agency amongst peers and donors—as long as it stays focused and does not drift into other sectors.

2. UN-Habitat needs to rethink the projects it considers 'early recovery' as they take almost two years and involve shelters of varying quality along with development projects such as infrastructure. All work should be durable and of high quality, because UN-Habitat's reputation depends on it.
3. Slogans such as 'build back better' should be examined. Issues include considering that if disaster risk reduction measures are costly and not recommended so that more people can be helped, what resilience is being added, in real terms? Hard decisions need to be made about which is the better option—more shelters or more disaster risk reduction measures for better quality.
3. Once UN-Habitat experiments with models of low-cost housing and various disaster risk reduction methods for foundations and roofing, it can offer more capacity building and mobilization of communities to replicate disaster resilient construction practices.
4. When designing disaster response programmes, UN-Habitat should advocate for better settlement planning not just solutions at the household level.
5. Strong Monitoring and Evaluation Units in the UN-Habitat Country Offices backed up by the Regional Office can help to identify training needs and address project weaknesses at stages when problems can be remedied.
4. UN-Habitat should focus on monitoring the projects for quality issues so that mistakes can be caught early enough to fix them—especially since they were working with relatively inexperienced local partners.
5. There is a need for ongoing capacity building of the project implementing partners, with more training of construction workers to ensure better quality construction and maintenance.
6. Training and oversight inspections should continue to be the focus of UN-Habitat technical project assistance in disaster response, and should cover both UN-Habitat-assisted and self-driven reconstruction work.
7. To reach the maximum number of beneficiaries, UN-Habitat could expand its services to provide technical assistance in shelter and community infrastructure for communities who have their own resources but lack disaster risk reduction knowledge.
8. More monitoring, evaluation and capacity-building expertise is needed in the Country Office, which failed to record and remedy problems in the field in a timely way. Third-Party Monitors, an inspection regime, and a remedial fund should be considered to assure quality work.
9. UN-Habitat should involve a community share in infrastructure projects if such participation contributes to better maintenance.
10. There should be a focus on lessons learned, establishing standards, and on testing materials and construction methods, so that UN-Habitat is fully recognized as a technical expert in shelter reconstruction, basic services, community infrastructure and sustainable urbanization and the lead partner in disaster response and disaster risk reduction.

VI. RECOMMENDATIONS

For the Country Office:

1. Given the level of poverty of many of the affected communities and the types of disaster risks they face, UN-Habitat needs to find more affordable disaster-resistant construction methods and test model shelters.
2. UN-Habitat needs to examine the net cost and impact of the concept of community share as it led to inferior construction of shelters and latrines.
3. UN-Habitat should withhold a portion of community infrastructure funds, if possible, until it ascertains that shelters and latrines were well built and do not need remedial funds.

For the Regional Office:

1. The Regional Office for Asia and the Pacific needs routine field presence in order to maintain and build the Country Office, which needs a new Country Programme Manager to assure donors of UN-Habitat's intentions.

2. A Regional Office in Thailand can better serve the needs of the Pakistan office (and also of Afghanistan, Bangladesh, and Burma) and prove less costly to run. This would be more accessible to UN-Habitat Country Offices in South Asia with the largest programmes and help resource mobilization and cooperation with other agencies.
3. Regional offices should be the information link between Country Offices and Headquarters, ensuring that the sectoral offices at Headquarters are informed about the Country programmes.
4. The Regional Offices must find a way to support Country Offices with expertise, resource mobilization, and a monitoring and evaluation function.
3. The word 'normative' should be avoided, as the overuse of this term reaffirms the seemingly academic nature of some of headquarters' work, detached from the reality of the field. Derivative, applied, evidence-based studies should be the focus, and this is provided by the work of the Country Offices.
4. UN-Habitat Headquarters should be filled with staff who have expansive sectoral knowledge and real world experience, are engaged with Country Offices, informed about their current projects, challenges and context and willing to find solutions for their particular needs.
5. Since the Evaluation Unit has been separated from monitoring and placed in the Office of the Executive Director, the Unit should be staffed with adequate capacity of qualified and experienced professionals. Evaluation must have active links to programming and monitoring units to assure evaluation recommendations are applied for improved data collection, programming and overall programme improvement.

For Headquarters:

1. UN-Habitat Headquarters should be learning from real world experiences in the Country Offices, acquiring derivative knowledge and evidence—but to do that sectoral specialists would have to be informed about the work in Country Offices and spend much of the year in the field.
2. Decentralization of core units from headquarters to the Regional Offices could facilitate their immersion into real world applications and facilitate resource mobilization. It could also help UN-Habitat escape from the operational restrictions and costly bureaucracy of UNON.
6. UN-Habitat Headquarters should conduct an evaluation of who makes use of their research and assess the value of their own partnerships and results. The field work supported by an impressive array of donors could be missed by millions of beneficiaries, because the focus of headquarters on resource mobilization is for itself, instead of raising funds to apportion to all of the agency's work. This raises more questions as to where the real value of UN-Habitat lies.

1. INTRODUCTION AND RATIONALE FOR THE EVALUATION

UN-Habitat, as the lead United Nations agency for Cities and Human Settlements, is mandated under General Assembly resolution 59/239 and Governing Council resolution HSP/GC/ 20/17 of 8 April 2005 to support member states in disaster prevention, mitigation and preparedness, and post-disaster rehabilitation capacities in human settlements.¹⁶ The role of UN-Habitat was specified in General Assembly resolution 59/239 of 22 December 2004, which requested that the agency continue to support the efforts of countries affected by natural disasters and complex emergencies to develop prevention, rehabilitation and reconstruction programmes for the transition from relief to development. UN-Habitat's aim in humanitarian work is to promote sustainable relief and recovery.

Since 2005, UN-Habitat has been working in Pakistan in response to natural and man-made disasters, most notably during the devastating earthquake of 2005, the earthquake of 2008 in Baluchistan, and the floods of 2007, 2010, 2011 and 2012. UN-Habitat also played a role in assisting populations displaced during the military counter-insurgency operations in Khyber Pakhtunkhwa (KP) and the Federally-Administered Tribal Area (FATA), as well as Afghan refugees.

In support of these emergency reconstruction efforts, UN-Habitat established databases to register beneficiaries, a unit to deal with issues relating to land rights and tenure, and an ongoing project to digitize maps to enable provincial governments to protect their records and have accurate information about land status and use. Some of the community survey methodology is conducted with UNFPA in support of capacity building for a census. In addition, UN-Habitat has continued work on other development issues relating to basic services and sustainable urbanization, including solid waste disposal and water and sanitation projects.

UN-Habitat was criticized in a donor review for its lack of evaluation culture.¹⁷ At a time when donors are seeking evidence of value for their aid investments, UN-Habitat needs to be accountable in demonstrating results obtained. It was most timely that UN-Habitat expanded its activities to include an evaluation of its activities in Pakistan as part of wider efforts to strengthen accountability, and improve performance and organizational learning. This evaluation aims to provide the organization and its stakeholders with a greater understanding of UN-Habitat's role in post-disaster recovery, reconstruction and development in Pakistan through an independent assessment of its achievements, lessons, challenges and opportunities.

The evaluation used a participatory approach, which included stakeholders in the planning, implementation and reporting of the evaluation process. In this regard, a team of two international evaluators and two national technical consultants was commissioned by UN-Habitat to conduct an independent evaluation to assess the agency's role in post-disaster recovery and reconstruction in Pakistan from 2005-2013, based on the criteria of relevance, efficiency, effectiveness, impact and sustainability. The evaluation also considers the extent to which cross-cutting issues of youth, gender equality, environment and human rights have been promoted in UN-Habitat operations. The Pakistan Country Office, also conducted its own lessons learned exercise and identified many of the weaknesses disclosed in this evaluation, with proposed solutions.

¹⁶ The mandate is further elaborated under UN-Habitat's Agenda, paragraphs 40(l); 43(z); 170-176; 208(d), (e); and 228(c).

¹⁷ See DFID study, Documents list.

In line with the Terms of Reference (Annex I) the evaluation focused on the major programmes of the past few years, namely USD44.6 million in support from the Japanese Government for flood relief, USD3.5 million from the Korean Government's aid agency for community infrastructure for IDPs, and a One UN project, as samples of interventions. The Evaluation Team was tasked to also include

an overview of all project activities, including those that had long ago ended, such as the major earthquake relief effort (Annex II List of UN-Habitat projects in Pakistan, 2005-2012). As a result, the evaluation seeks to assess the performance of UN-Habitat in executing a varied portfolio that combined emergency programmes with long-term development work.

2. EVALUATION METHODOLOGY

Various methods were used for qualitative evaluations: document review, key informant interviews, focus groups and direct observations of projects on field visits. The extent of the access is what matters in executing the evaluation methodology, and that detail is found in the appendices of the report—the list of interviews, documents and field visits (Annexes IV-VI). Details of limitations and constraints with the Evaluation Process are found in Annex III.

The evaluation involved the normal process of document review, followed by four weeks of field work in country that included site visits and key informant interviews with beneficiaries, implementing partners and peer and partner agencies. The two international consultants had experience in disaster management programmes and had worked in Pakistan, and the two national consultants were technical specialists in architecture and engineering. However, one of the four consultants was not available for half of the field work period and did not assist in the revision of the report.

The report indicates gaps in understanding by the evaluators, which usually signals that not enough time or access was given to gather information. Adequate monitoring and reporting by the Pakistan Office staff sometimes compensated for the lack of access. Monitoring and reporting would alert the Country Programme Manager when there were problems in the field that needed to be remedied. The IT team needs an analyst to decide what information should be extracted from their databases for institutional learning.

Document Review

Throughout the course of the evaluation contract, the evaluation team reviewed various project documents, technical manuals, Regional Office for Asia and the Pacific field mission reports and project completion reports. There was only one project evaluation of the DFID flood response—and one mid-term review of the 2005 earthquake response that was still in a draft form.

While UN-Habitat collects a lot of data, it does not analyze it in ways that make the process more transparent or the information insightful. Nor does it have adequate work plans or monitoring reports to indicate when each project was completed, when there were delays or other problems, and what mechanisms were used to address the issues. For instance, it would have been useful to know which houses actually used the recommended disaster risk reduction measures, like plastering and pointing, and then compared that with the assessment of damaged structures.

Key informant interviews

The evaluation team compiled a list of donors, partner and peer agencies and implementing partners, as well as the names of key informants in the sectors involved in primarily disaster response. This led to meetings with government officials from past through current programmes, several UN agencies who work with UN-Habitat on One UN projects, other agencies with a field presence who could comment on the disaster response work, working group members and local NGO implementing partners. A list of Interviews is in Annex IV.

An attempt was made to interview all UN-Habitat staff in the Islamabad office, as well as available staff encountered on field visits. However, there were always absence of staff, or scheduling issues, and it sufficed to interview available staff in a section. At the time of the Evaluation, contracts of most staff were ending and many were preoccupied with their terms of work.

Unfortunately, the methodology of the national consultants was not diligent in record-keeping in terms of interview names and meeting notes. Some names are incomplete.

Field Visits

Field visits were made by the team to visit project sites in Sindh, Baluchistan, Punjab, and Khyber Pakhtunkhwa. A few days were spent in Azad Jammu and Kashmir, and Bajaur Agency, Federally

Administered Tribal Areas (FATA).¹⁸

The sites visited were selected by UN-Habitat staff in consultation with one of the international consultants as the other consultant arrived later in the process. The villages visited demonstrated an array of problems faced but may not have typified the overall picture of the Project. They gave the impression that problems were more universal, given that visits were made to only five per cent of the villages of the Pakistan Settlements Flood Recovery Project and far fewer for KOICA.

The UN-Habitat Country Office felt the Evaluation Team focused too much on problems in its reporting, as though they typified the programme. In general, the Country Office wanted the successful projects to be seen as typical and the failures to be seen as exceptions.

The Evaluation Team reported what they saw without reference to how widespread the problems or the successes may have been. Issues were identified. Just the fact that problems found with shelters and latrines had not been remedied before the evaluation mission indicates an inadequate monitoring and oversight process, and lack of contingency plan to remedy defects. If monitors could not identify and refer problems so that they could be fixed, UN-Habitat may need to rely on Third-Party Monitors in future.

The Evaluation Team covering the floods projects walked through the villages with some members of community-based organisations and observed the shelters, latrines and community infrastructure. Their detailed notes are in the Field Visits, Annex V.

The conflict recovery programme was in areas mostly inaccessible to foreigners and was only briefly covered with two days of field visits by the Evaluation Team.

The earthquake recovery happened years ago, and access is restricted in AJK. The Team Leader covered the 2005 earthquake through key informant interviews and a one-day field visit to the affected region. As UN-Habitat seemed to have played a limited role in the Quetta earthquake, it was only mentioned, not reviewed. Therefore, there are gaps in information on all the disaster and conflict response programmes.

Direct Observation

Field visits enable the direct observation of projects, discussions with the Citizens' Community Board/ community-based organisations and other implementing partners, and meetings with beneficiaries. In the process, issues of quality control and UN-Habitat monitoring and oversight could be assessed. UN-Habitat staff gave briefings on their work, arranged meetings with key informants, such as members of the Provincial Disaster Management Authority and the District Coordination Officer. No-Objection Certificate permits had to be arranged for most visits, which caused delays to the schedule and prevented visits to some areas.

At times, it appears as though the Government of Pakistan aims to discourage international agency visits to monitor projects. Donors should help to gain assurances from the Government of Pakistan in advance of signing the project document that unlimited access will be available for all project needs, including evaluation.

Triangulation of Data

As many agencies had worked on these issues of disaster response, it was not difficult to compare projects, the problems they faced and the quality of the shelters they constructed. This triangulation of information sources helped to put into context information reported in documents and that provided by UN-Habitat. It made the work of UN-Habitat seem to compare with that of the International Organization for Migration, which built the largest number of shelters, but not appear innovative or distinct.

Questionnaire for UN-Habitat Staff

A few questions about the work of staff and the organization and process of the Country Office and its field work were circulated to all staff through their UN-Habitat email accounts. About two dozen staff responded, raising some issues that are included in the management section.

¹⁸ See Annex V. Field Visits for complete details, along with field notes, it gives an idea of the information gathered.

A visit from the Technical Advisor from UN-Habitat's Regional Office for Asia and the Pacific (ROAP) gave the Evaluation Team the opportunity to learn more about their perspective and oversight role. ROAP offered assistance in resource mobilization and technical matters, despite many changes in leadership in the Pakistan Office over the seven years covered in the evaluation.

The two international evaluators then traveled to UN-Habitat Headquarters in Nairobi to meet key staff there. The Executive Director and Deputy Executive Director were not present. Of those staff met in Nairobi, one staff member had intimate knowledge of the Pakistan Office. Other meetings were with sectoral or programme specialists, whose work mostly did not relate to the needs of the Pakistan Office. The international evaluators were able to hold some meetings by Skype with the former Chief Technical Advisor from the Regional Office for Asia and the Pacific, the former Country

Programme Manager in Pakistan and the former Chief Technical Advisor in Pakistan, who also sent more information about the earthquake response by email.

The changes in administration planned for Headquarters seemed remote and not related to the focus of the evaluation, unless it affects the staffing of the Evaluation Unit. The Terms of Reference called for a workshop at the end of the evaluation, without specifying what purpose it would serve. The International Consultants assumed it was for the Pakistan Office staff, rather like a briefing. However, the Evaluation Unit said it was meant for briefing the Headquarters' staff, making it seem that it was added into the Terms of Reference as part of a generic evaluation checklist, not because it made sense in this context. Therefore, the idea was abandoned.

3. BACKGROUND TO UN-HABITAT'S INTERVENTIONS

The UN-Habitat Pakistan office had one of the agency's largest portfolios and made its reputation in the country for the technical role played as part of the most successful earthquake reconstruction project ever achieved.¹⁹ Then, in the summer of 2010, a major natural and man-made disaster occurred in the floods that swept from the north of the country all the way to Sindh and Baluchistan in the south. UN-Habitat was a natural participant in the reconstruction of housing, overseeing a community-led process.

While UN-Habitat may have originally envisaged dealing with development issues rather than emergencies in Pakistan, the scale of recurring disasters has meant that UN-Habitat's expertise has been applied to recovery and reconstruction after large-scale disasters. The earthquake response has been well documented in two volumes written by the former Chief Technical Advisor.²⁰ This report will look more in detail at the recent flood response 2010-2012, to capture that experience as a case study for improved programming, planning, and management.

Pakistan has experienced a series of devastating disasters. In 2005, over 3.5 million residents of Azad Jammu and Kashmir (AJK) and the Northwest Frontier Province (NWFP, now Khyber Pakhtunkhwa) were hit by a 7.6 magnitude earthquake that affected more than 28,000 sq. km of territory. The earthquake claimed 74,000 lives, injured another 128,000 people, destroyed or damaged 630,000 houses. Most of the affected areas remained inaccessible for months as the harsh winter climate compounded the hardship. UN-Habitat conferred with other agencies and the Government of Pakistan on the methodology of reconstruction, and provided technical assistance to home-owners as they rebuilt their houses to

seismic-resistant standards.

While recovering from the impact of the earthquake, Pakistan was hit by another disaster. In 2007, a major cyclone and flash floods in June and July destroyed a large swath of agricultural area spanning more than 18 districts of Baluchistan and five districts of Sindh, displacing more than 2.5 million residents. Although UN-Habitat was too under-resourced to provide support for the flood victims, it assumed the responsibility of coordinating and monitoring residual shelter activities left by the outgoing Emergency Shelter Working Group. However, the lack of funding for technical assistance limited the field monitoring and resulted in substantial overlaps in assistance.²¹

In October 2008, an earthquake hit Baluchistan province. The Government did not declare a major emergency but provided cash compensation to affected households ranging from PKR15,000 for minor damage to PKR50,000 for partially destroyed houses and PKR350,000 for a totally destroyed shelter.^{22, 23, 24} However, little of this money was used to rebuild housing and no standards for seismic resistance were enforced. The Government decided to pay compensation in a lump sum instead of instalments linked to progress in reconstruction.

According to the UN-Habitat Country Programme Manager (although this was not verified by the Evaluation Team) after the emergency phase, UN-Habitat provided winter transitional shelters and latrines to more than 1 400 families, and several seismic designs, at the request of National Disaster Management Authority, within the PKR350,000 grant amount. It also provided the national

21 *Pakistan Flood Response 2007, Review of the Shelter Working Group, IFRC.*

22 *IASC Baluchistan, Post Earthquake, Winter Emergency Response Plan Annex A, page 18.*

23 *The Evaluation Team cannot explain these figures, as the amount to replace a house is twice that allocated to rebuild in the 2005 earthquake.*

24 *Exchange rates fluctuate significantly over time. However, the following rate of 1USD=98 Pakistani Rupee (PKP) can be used for simple comparison based on average rate prevailing in 2012 and early 2013.*

19 *According to the World Bank, a main donor and designer of the programme, and other development and Government partners.*

20 *See Annex VI: Documents list. The books written by former Chief Technical Advisor, Ms Maggie Stephenson, are now being published by the World Bank.*

government with posters on improved building construction techniques, and encouraged the provincial government to allow extensive training and model houses so that people had some choices. However, the provincial government did not agree, for reasons the Country Programme Manager did not explain. Effort to raise funds together with National Disaster Management Authority also did not yield results.

As with Kashmir, winter conditions hindered some construction until the spring and by then the money had been spent on subsistence. This indicates that lessons were not learned in the earthquake of 2005, and that development lessons need a unified federal and provincial government strategy backed by the cooperation of local residents.

In 2009, a large-scale military operation in the Malakand Division²⁵ of FATA displaced an estimated 2.9 million residents and inflicted considerable damage on the physical and social infrastructure of the area. UN-Habitat, funded by DFID, CERF, USAID and UNHCR, provided emergency/transitional shelters, WASH and the rehabilitation of schools that had been occupied by IDPs.

In 2010, following heavy monsoon rains in July-August, Pakistan recorded another major disaster, considered to be the worst flood in the nation's history.²⁶ Flood waters from the North swept south into the Arabian Sea over 100,000 sq. km of land, directly affecting 7,780 villages and 141 urban settlements in 84 districts. More than 20 million people were affected, 1,980 killed and 1.8 million homes were destroyed. A major response was mounted by aid agencies, with reconstruction mostly launched in 2011.

Then, in 2011, heavy monsoon rains hit the southern and eastern regions of Sindh leaving 796,862 houses damaged. In 2012, heavy rains swept through six provinces, affecting around five million residents and damaging 600,000 homes in Sindh, Baluchistan and Punjab provinces. This disrupted ongoing reconstruction and required additional relief measures.

25 The Malakand Division was administrative division of NWFP until the reforms of 2000, and now under KP. In 2010 following implementation of 18th Amendment to the Constitution, the Northwest Frontier Province (NWFP) was renamed Khyber Pakhtunkhwa (KP). Source: <http://www.globalsecurity.org/military/world/pakistan/nwfp.htm>

26 Also in 2010 there was the Phet Cyclone that hit the coastal region of Baluchistan and Sindh.

In summary, a number of major initiatives were implemented by UN-Habitat in coordination with the Government of Pakistan to assist disaster victims in many areas of the country since 2005, including:

- Provision of emergency shelter and technical assistance in the earthquake reconstruction phase through nearly 600,000 owner-built shelters, and inspection of 93,000 houses for seismic-compliant standards²⁷
- Facilitation of the purchase of land by 14,355 of the most vulnerable families whose land was lost or rendered hazardous by the earthquake of 2005
- Pakistan Settlements Flood Recovery Project (PSFRP), funded by the Japanese Government, provided more than 32,000 shelters, 22,000 latrines and 1,400 hand pumps and 605 rehabilitated hand pumps, infrastructure, and various hygiene, water and sanitation activities to prevent the outbreak of water-borne diseases²⁸
- Rehabilitation of Community Infrastructure and Facilities, funded by Korean aid (KOICA) that assisted 11,000 IDP families in more than 600 villages in KP affected by the government's counter-insurgency campaign through restoration and access to basic critical infrastructure and services by IDPs and their host communities
- Community-Driven Shelter Interventions in Sindh as Response to Pakistan 2010 Flood, funded by DFID that provided shelters to 30,160 persons (3,781 households) in Jacobabad
- Launch of an emergency response from CERF funds²⁹ after the heavy monsoon of

27 Other documents say that UN-Habitat inspected 90,000 houses on its own and 100,000 jointly with the Army, leading to the figure of 200,000. This is not a dispute for evaluators to sort out but one for UN-Habitat in its own records and publications.

28 Figures based on information provided at the time of the evaluation.

29 "A humanitarian fund established by the UN General Assembly in 2006 to enable more timely and reliable humanitarian assistance to those affected by natural disasters and armed conflicts. The fund is replenished annually through contributions from governments, the private sector, foundations and individuals and constitutes a pool of reserve funding to support humanitarian action" and is managed by the Humanitarian Coordinator. For additional information visit: <http://www.unocha.org/cerf/about-us/who-we-are>.

2011, providing 6,345 emergency shelters, a rehabilitated water supply scheme, and hygiene and sanitation training in the three most severely affected Union Councils of the Tando Muhammad Khan district of Sindh

- Response to IDPs from conflict in 2009 and 2010 by providing shelters and WASH to displaced people in host communities

The exigency of humanitarian response led UN-Habitat to engage more tactically in short-term programmes to help victims of disasters using its regional experience in shelter construction, WASH, and community infrastructure, and it incorporated a participatory process in Pakistan's post-disaster recovery.³⁰

Since the emergency needs were so great, most donor funds were diverted towards those programmes. UN-Habitat at times distinguishes between 'early recovery' projects and the term 'reconstruction'.³¹

The Regional Office suggested that early recovery shelters were meant to be quickly constructed but not necessarily permanent—although the Pakistan Settlements Flood Recovery Project took more than the year it was allotted by the donor.³²

Despite the fact that most of the work of UN-Habitat has focused on disaster and conflict response, the agency has also engaged in a number of development projects. This has included working with major partners including UNHCR, UNISDR, UNESCAP, UNFPA, One UN and government agencies, as well as with private sector partners.³³

UN-Habitat aimed to advance various policy agendas related to the environment, gender, disaster risk reduction and basic service delivery. Its achievements in promoting government policy were not covered within the limits of this evaluation, which focused on physical projects. UN-Habitat in Pakistan can always engage in policy debates and advocacy with the government at the national and provincial level, in the course of its routine activities. The Regional Office bemoans the fact that donors do not fund policy debate, but talking is part of an ongoing partnership between the current staff in the Country Office and their government interlocutors and does not require funding.

³⁰ Such as Afghanistan, Myanmar, and Bangladesh.

³¹ The term 'early recovery' was invented so that development agencies could play a role in emergency relief. The specific use of the term is not widely known.

³² The project document mentions that "The early recovery phase will focus on providing a safe and durable shelter solution, minimizing further displacement and encouraging return of populations in a dignified and sustainable manner", p. 4.

³³ Such as P-WOPS, BASF, Coca-Cola, and NORCAP.

4. EVALUATION FINDINGS

This chapter has five sections. The first two sections (4.1 and 4.2) present findings on the major interventions of earthquake response and flood response. The following sections (4.3, 4.4 and 4.5) cover findings on conflict response activities, development programmes and activities programmed within the One UN framework. The last section (4.6) examines the extent to which cross-cutting issues were considered in the interventions.

4.1 EARTHQUAKE RESPONSE

Although earthquakes occur in Pakistan at regular intervals, the earthquake that struck Azad Jammu and Kashmir and Northwest Frontier Province in October, 2005 gave UN-Habitat a prominent role in seismic shelter reconstruction and disaster risk reduction. More than 3.5 million persons were affected, including 75,000 deaths, with 630,000 shelters destroyed or damaged, equaling 84 per cent of housing stock in Azad Jammu and Kashmir and 36 per cent in the Northwest Frontier Province.³⁴ Thousands of schools, health facilities and government offices needed to be rebuilt.³⁵ Donors pledged USD5 billion for the reconstruction process.³⁶

The aim was to reconstruct seismic-resistant rural houses in a timely way in a region with a harsh climate and topographical challenges. Options included reconstruction by the government, agencies, or home owners. A consensus emerged between the Government, donors, and development agencies that the owner-built model would be most viable. Funding from the World Bank, Asian Development Bank, and Islamic Bank assured that a programme of scale could be mounted.

Within days, the Government of Pakistan had established the Earthquake Rehabilitation and Reconstruction Authority (ERRA) led by the military and commanding the breadth of their resources and logistical tools. Further agreement was reached over assessment methodology, a transparent financial disbursement mechanism, skill training in seismic construction and improving vernacular technique. This included setting up training centres, establishing construction material hubs and initiating an inspection system and grievance procedures.³⁷

The Pakistan Army began the assessment task of identifying households that were entitled to assistance. Of the 611,059 houses surveyed, 463,243 were deemed to have been totally destroyed. NGOs and quasi-governmental organizations such as the Pakistan Poverty Alleviation Fund (PPAF) worked in the Northwest Frontier Province. UN-Habitat offered to assist with surveys in the Army area. It deployed 98 five-person teams of male and female social mobilizers, two masons and a sub-engineer.³⁸ The Government signed a memorandum of understanding with the beneficiaries that the homes would be owner-built and follow seismic-resistant standards.

Process

Some basic decisions governed the process:

- Everyone affected received a payment, ranging from PKR25,000 (USD417) for negligible damage to PKR75,000 for partially-destroyed homes and PKR175,000 (USD3000) for a totally destroyed home³⁹
- The reconstructed home was meant to be a core unit, not necessarily as elaborate as what had been destroyed

34 467,000 totally destroyed and 163,000 partially destroyed.

35 Private housing: 44 per cent of total USD3.5 billion reconstruction costs or USD1.6 billion.

36 The World Bank gave USD400 million, of which USD210 million for housing. The Asian Development Bank gave USD 400 million for housing and the Islamic Bank gave USD207 million for constructing and inspecting 82,500 houses.

37 According to General Nadeem Ahmed, Former Deputy Chairman of the Earthquake Rehabilitation and Reconstruction Authority.

38 The Country Programme Manager at the time of the evaluation disputes this, which was drawn from other sources. It explains why he says UN-Habitat only inspected 90,000 houses.

39 Other payments were made to compensate injury and loss of life.

- A 'One roof, one house' policy meant that houses that held several families would only be given funds to rebuild one house for one family.⁴⁰ At a later stage the family could add more rooms
- Houses would be built and paid for in instalments after documentation of progress and inspection of seismic-compliant building standards. Owners were responsible for opening a bank account so that payments could be transferred
- Artisan-trained, owner-driven approach of reconstruction was made possible with training centres to assure the capacity of local and migrant builders

4.1.1 Training

The Earthquake Rehabilitation and Reconstruction Authority asked the Nepali National Society for Earthquake Technologies to help to establish standards for damage assessments and earthquake-resistant building techniques, and to build the capacity of the Government's partner agencies participating in the training process. UN-Habitat, along with the Swiss and German development agencies (SDC, GTZ) and the Pakistan Poverty Alleviation Fund were then contracted by the Earthquake Rehabilitation and Reconstruction Authority to set up Housing Reconstruction Centers for technical advice and capacity building, to teach skilled masons and carpenters how to incorporate earthquake resistant designs and materials into the new houses.

Under the guidance of the Nepali National Society for Earthquake Technologies, they held five-day courses on seismic construction methods to reinforce the local style of houses. These included:

- **Dhajji**—timber frame with stone fill or sheet cladding
- **Bhatar**—stone masonry, reinforced with timber
- **Leepa**—timber post and beam (approved at a later stage)

40 Technical Advisor Maggie Stephenson said that most people were accommodated but on the evaluation visit everyone encountered pointed to the house his brother had built (and lived in) with relief money; the interviewees had been left to build their own house.

- Reinforced masonry-stone brick or block with metal rods
- Confined masonry-brick, block or concrete panels confined with concrete columns

They also trained homeowners, to enable them to assist with and monitor the work. UN-Habitat ran ten such centres and allowed the trainers to go to houses under construction to advise the owners how to build.⁴¹ UN-Habitat trained 256,000 persons in construction techniques, thereby facilitating the reconstruction of more than 460,000 houses.⁴²

The Government worked through the local Village Development Councils or Village Reconstruction Committees to support compliance. They were encouraged to form a sub-committee on monitoring to ensure that vulnerable groups such as female-headed households and the elderly could access reconstruction benefits.

Although the Army had initially circulated some yellow posters, that instructed people how to build their homes with inadequate materials and standards, they later adopted the Earthquake Rehabilitation and Reconstruction Authority's protocols for construction. They also were charged with inspecting homes so that home owners could receive their payment instalments for the next stage of construction.

4.1.2 Inspection Regime

Since many houses had been built quickly and without adherence to standards, non-compliant houses needed to be identified and remedied. In 2008, UN-Habitat conducted joint inspections with the Army and focused on how to offer technical assistance for non-compliant houses. Between April and August 2008, the Army gradually handed over the inspection role to UN-Habitat, leaving 90,000 cases, many of them the most complex. By the time the project closed in May 2009, half of those houses had been certified. In total, UN-Habitat inspected 260,478 homes of the 440,000

41 With Earthquake Rehabilitation and Reconstruction Authority, UN-Habitat coordinated a Disaster Risk Management training programme for Government officials, with permanent chairs to sustain the training in two universities.

42 The Country Programme Manager says these figures include the training of other agencies, too—not only those trained by UN-Habitat.

built—92,890 on its own and the rest jointly with the Army.⁴³

Inspections took place at the plinth and lintel levels of construction, instead of at the roof level to assure completion.⁴⁴ Approval meant that the next instalment of funding would be transferred. Rejection meant that a compliant solution had to be found, if possible. At the end of the inspection period, 1,024 houses were deemed non-compliant at the lintel level, mostly in Azad Jammu and Kashmir.⁴⁵

4.1.3 Grievance Commission

There were 70,000 complaints over the course of the Earthquake Rehabilitation and Reconstruction Authority's reconstruction process, with multiple complaints filed by the same homeowners over delays in payments. A new national registration system had been set up, the Computerized National Identity Card, which gave citizens a new national identity number. As a result, there was confusion between the old and new numbers to verify identity and also issues over eligibility to receive benefits. Many old records had been destroyed in the earthquake and buried in the rubble. Time was spent verifying identities and land records, and visiting the site of the house with an inspection team. In some cases, the land was no longer there but had crumbled down the hillside. In other cases there were issues of inheritance and home ownership that needed to be resolved.

Since the payment system required homeowners to open a bank account, names, identity cards, and bank account numbers all had to be reconciled. This led to the majority of delays and to homeowners continuing to build without an inspection—which led to the problem of non-compliant construction.

43 *The Pakistan Poverty Alleviation Fund and other NGOs inspected 150,000 houses in NWFP (now KP). Inspections were due to end in 2009, when the project closed. The numbers vary. In Anna Pont's account it is 400,000 out of 463,000 destroyed. See Home: Rebuilding After the Earthquake in Pakistan. Other staff said 437,000 houses were built, and 282,000 houses were inspected in the Army area of Azad Jammu and Kashmir, 194,000 by the Army and 90,000 by UN-Habitat. The final Government figure is 564,000 reconstructed houses.*

44 *The last installment was paid before the roof was added and people ran out of money before finishing the house.*

45 *According to Earthquake Rehabilitation and Reconstruction Authority — Mandatory Weekly Progress Report for Rural Housing, 10 July, 2010. See photo of non-compliance at the plinth level in the Technical Annex.*

Indeed, most other complaints were related to the building standards and finding a way to reconstruct the house so that it would be compliant and the payment could be released. UN-Habitat says that it helped to make 28,000 houses compliant. Other cases dealt with people who were not entitled to a house under the one roof, one house rule, houses where no work was started, or houses deemed non-compliant beyond rectification.

At the time of the evaluation, more than two years after UN-Habitat ceased work on the project, and three years after it had formally closed, there were still 4,000 cases of incomplete, noncompliant houses. Not all houses can be made compliant, especially for the PKR25,000 amount of the last instalment. Most of the open cases were taken to the Court by the plaintiff, although it is not clear whether those homeowners will receive the final payment and completion certificate.

State Earthquake Reconstruction and Rehabilitation Authority officials in AJK complained that the government took their residual funding and left them without money to finish the reconstruction process. Hundreds of schools and health facilities were not rebuilt.⁴⁶

4.1.4 Land Information Management System

UN-Habitat helped the Government of Pakistan to set up a Land Information Management System that included information on all the beneficiaries, with a photo of them standing with their MOUs in front of their houses. This documentation helped to deal with the causes of delays, as information about deserving beneficiaries was more accessible, and was available to all agencies involved in reconstruction.

4.1.5 Landless Programme

In another project with the Earthquake Rehabilitation and Reconstruction Authority, in June 2007, UN-Habitat launched the Landless and Virtually Landless programmes, based on the Government's Rural Landless Policy which gave PKR75,000 to selected beneficiaries to buy land.⁴⁷

46 *They said that the Earthquake Rehabilitation and Reconstruction Authority funds they had (PKR50 million) were diverted to flood relief in 2010.*

47 *Minimum size 125 m².*

Those who were eligible had either lost their property in the landslide caused by the earthquake or their land was too hazardous for continued habitation. Of the thousands who applied for assistance, 1,730 families were chosen, 20 per cent of whom were the most vulnerable. In six to eight weeks they completed a transfer process that often can take up to a year.

The second phase of the project helped the Virtually Landless, whose land was too hazardous for habitation. By May 2010, 12,655 families had bought land under the programme, with half of them deemed vulnerable.

More than 14,000 people were able to purchase new land through these programmes that were streamlined in bureaucratic steps through a 'one-window' operation that allowed for record checking, purchase, and the transfer of deeds in one room, in a few hours, at a much lower cost than the normal procedure. The names of the wife and dependent children were also placed on the deed, legitimizing women as landowners, and resulting in 45 per cent of the co-owners being women.⁴⁸

Residents of Muzzafarabad said that this process did allow for an enormous degree of inflation in prices, as a piece of land was agreed for sale at PKR25,000 until the seller discovered the landless purchaser had been given PKR75,000 to buy land. The price was then raised accordingly. Originally, the extra amount had been intended to partially fund a new house on the land.

In sum, the involvement of UN-Habitat generated policy advice to the Government on disaster reduction and relief and safer reconstruction, greater transparency through data management, increased capacity to build safer structures, and solutions for land ownership problems. Most important, 50,000 trained artisans and labourers, 200,000 trained sub-engineers, and 3,000 Village Reconstruction Committees remain with increased capacity to address other needs. In addition, there is increased awareness on seismic construction in the nine affected districts, with Earthquake Rehabilitation and Reconstruction Authority construction standards accepted in adjacent districts.⁴⁹

48 Also orphans were listed as principal applicants.

49 Lt Gen Sajjad Akram, Deputy Chairman, the Earthquake Rehabilitation and Reconstruction Authority. UN-Habitat also trained 500,000 people in seismic awareness and social mobilization.

The leaders of the Earthquake Rehabilitation and Reconstruction Authority and the World Bank recognized the Kashmir earthquake process as a standard, based on an owner-driven process, payments in instalments, training and construction subject to compliance inspections. UN-Habitat never conducted a formal evaluation of its role in the 2005 earthquake programme, which is only briefly summarized and assessed in this report.

Quetta Earthquake

In October 2008, an earthquake struck north Quetta in Baluchistan. The Pakistan army handled it, but most international agencies did not respond. UN-Habitat sent two engineers from Kashmir to Quetta to conduct an assessment. They obtained grants from CERF to provide emergency shelter.

Most noteworthy about the lessons of the 2005 earthquake is that the model was not used by the Government elsewhere.⁵⁰ The 2005 earthquake had conditional payments. In 2008, in Baluchistan the government gave PKR350, 000 to families to rebuild. UN-Habitat was not in favour of this payment, unless it was done in at least two instalments with prototype designs and standards.

Two years after the Baluchistan earthquake only three per cent of damaged houses had been reconstructed, and to a poor standard. However, government officials who had worked in Kashmir said the process there had been too slow, and had resulted in price inflation, rendering insufficient the payment offered at that time.

The vulnerability of the affected communities must be considered in broader terms than shelter needs when designing disaster response programmes. It could be more efficient and effective to plan resettlement schemes for groups of people living in earthquake-affected areas, instead of leaving individuals to manage for themselves. In Quetta, as in the flood relief cases, many families were without resources and used funds intended for shelter for subsistence over the months of the recovery process.

The UN-Habitat Regional Office for Asia and the Pacific (ROAP) asked why the lessons of 2005 were not duplicated in 2008. The Evaluation Team did not cover the earthquake of 2008 in detail, in part

50 According to General Nadeem, former Deputy Chairman of the Earthquake Rehabilitation and Reconstruction Authority, this was due in part to delays in the process.

because of the time constraints on the evaluation and focus on the role of UN-Habitat. It is remarkable that the Regional Office did not ask the Country Office to investigate this question over the past four years.

4.2 FLOOD RESPONSE

In the flood response, UN-Habitat offered shelters, latrines, water pumps, and community infrastructure with funding support from the Government of Japan, CERF, DFID, UNICEF, and UNESCO. Projects faced four main problems posed by:

- The choice of affordable building material offered to the beneficiaries, and its lack of resilience in a high-risk zone
- Inadequate technical assistance, capacity building, and oversight for quality assurance
- The choice of implementation modality through community-based organizations as opposed to shared implementation to compensate for the lack of capacity of the community partner
- Inappropriate selection of beneficiaries.

2010 Floods

Pakistan experienced the worst floods in its history over the course of the monsoon rains in July-August of 2010. The disaster was part natural and part man-made as torrential rainfall flooded the North and rushed south.⁵¹ As canals overflowed, bunds collapsed or were removed, leading to the diversion of large amounts of floodwater to the west. The tampering with barriers and the inadequacy of the drainage system meant that the water management infrastructure also had to be part of the recovery and reconstruction process.⁵²

The floods swept over 100,000 sq. km. in four provinces, affecting more than 18 million people in 7780 villages and 141 urban settlements in 84 districts.⁵³ Updated figures indicate that 805,694 houses were completely destroyed and many more damaged.⁵⁴

51 Azad Jammu and Kashmir, Khyber Pakhtunkhwa, Gilgit, Punjab, Sindh and Baluchistan were affected.

52 Although the Federal Floods Authority has responsibility for water and flood management, it lacks capacity. The Asian Bank for Development undertook the reconstruction of infrastructure in Sindh to assure adequate canal size for proper drainage and reinforced bund barriers to make the region more flood-resistant — as long as the bunds are not removed by self-interested parties.

53 Out of a total of 121 districts.

54 According to IOM Shelter Cluster.

Perhaps in consideration of the owner-built process for earthquake recovery, the Federal and Provincial governments launched the Citizens' Damages Compensation Programme to disburse money to flood-affected citizens through an ATM card.⁵⁵ This aimed to provide PKR 60,000 to each household, beginning with a PKR20,000 initial payment for emergency relief. A poor implementation plan led to delays and the eventual reduction in the amount to PKR40,000.

International donors contributed USD356 million (PKR34 billion) to cover the first payment of the scheme, in the belief that it would be the easiest way to sponsor reconstruction. An insufficient number of ATM machines, administrative delays and fraud hindered the process. Disbursed funds were spent as they were doled out as homeless, indebted and destitute individuals used the money on essentials. A second tranche of funds was distributed later, but donors estimated that only one in ten recipients actually used the payments to rebuild their home, and the number of total beneficiaries is not known.⁵⁶ Houses had to be rebuilt through another system. Development agencies committed to rebuild 195,000 of them.

After the 2010 floods, it took six months for the water to fully drain in many areas. People were living in tents on the ridges of land between destroyed shelters. Of the 776,861 houses damaged, 328,555 were totally destroyed. In Sindh, where 600,000 houses were damaged, UN-Habitat proposed an integrated approach to help the affected villages in their effort to rebuild shelter, water, sanitation, and community infrastructure. The Government of Japan allocated USD44.629 million for the Pakistan Settlements Flood Recovery Project (PSFRP) in response to UN-Habitat's appeal. With these funds, UN-Habitat oversaw construction of 32,416⁵⁷ shelters in Baluchistan, Sindh, Khyber Pakhtunkhwa and Punjab between February 2011 and November 2012.

55 Commonly known as the Watan card.

56 According to DFID. Donors do not agree on what happened and how it went wrong.

57 This number was provided by the Country Programme Manager.

The one-room shelter (ORS) and integrated settlement recovery were part of UN-Habitat's 'build back better' approach in Pakistan, targeting vulnerable and extremely vulnerable households, ideally using adaptive, disaster-resilient engineering solutions and integrating water, sanitation, and hygiene.⁵⁸ However, in the flood response, the housing was in some cases not well-conceived for the risk and the latrines not well integrated.

The Country Programme Manager commented that the strategy was developed by the shelter cluster and approved by the National Disaster Management Authority, and UN-Habitat played a pivotal role in convincing them to have a minimum disaster risk reduction requirement in the early recovery phase to keep down the unit cost.

It also made a distinction between the early recovery phase and the development or reconstruction phase. UN-Habitat argued that if they increased the safety level they would reach fewer beneficiaries. This raises questions as to whether better disaster risk reduction standards will ever be introduced on a large scale, as most shelter projects are launched as soon as possible—what the aid community has termed 'early recovery'.

In fact, this concept is an artificial one imposed by development agencies and the declaration of an emergency is declared by the Government at national and provincial levels, and can vary. For instance, when this evaluation mission was conducted, the Government had still not declared the latest emergency over.

If donors and beneficiaries are told that the money on offer is for an 'early recovery' home but that they can wait six months and get a better one, what would they choose? Disaster resilience was an aim of the programme and that comes through better disaster risk reduction shelters.

According to the programme document, the Japanese donor funded UN-Habitat to respond with improved technologies for disaster risk reduction and low-cost shelters. The point was to replace the shelter with something better, more durable against flood risk according to affordable disaster risk reduction, not to offer something less durable (but not necessarily less expensive) because it was

⁵⁸ As co-chair with the National Disaster Management Authority of the Housing Early Recovery Working Group, UN-Habitat's Technical Guidelines for one-room shelters were endorsed by National Engineering Services Pakistan.

being built under an extended 'early recovery' phase. Reconstruction of a shelter means just that, not a phase in the aid cycle.

As early survey information was not updated in a database of beneficiaries, the evaluation team could not compare the choice of type of house and material by project or region, nor compare variances in costs. There can be price inflation due to increased demand for materials. Some shelter materials—such as for Loh-kat and mud cob—could be paid for by the UN-Habitat stipend. Nor could an assessment be made of what disaster risk reduction measures were used per shelter, and at what additional cost. UN-Habitat's main disaster risk reduction measures were raised platforms, water resistant foundations and plastering the shelter up to the flood level. Absent were roof overhangs, gutters or other protection for the top of the shelter from torrential rain. However, there was slanting roof with the front of shelter a bit higher than the back side for rainwater to run off, and provision for a gutter at the back of the shelter.

A total of 30 organizations built these shelters, intended by donors to target the poor, poorest, vulnerable and extremely vulnerable households. However, some heads of the citizens' community boards, community-based organisations and Provincial Disaster Management Authority officials said that eligibility was based on loss not on need, and wealthier people did get shelters that were often large and elaborate due to their ability to add their own resources.

DFID allocated USD2.6 million to build 3,770 shelters in Jacobabad, one of the poorest districts in Sindh, with the assistance of Youth Action for Pakistan (YAP), a local NGO implementing partner. In the end, 3781 shelters were constructed, with UN-Habitat overseeing construction of 1081 of them through community-based organisations. Youth Action for Pakistan constructed 1,370 shelters through direct implementation and 1,330 through a community-driven intervention.⁵⁹

⁵⁹ UN-Habitat's evaluation of the project mentioned the lack of capacity of NGOs in Sindh and suggested direct or shared implementation might assure a better construction process. The NGO could have focused on community education and learned management issues and monitoring methods.

2011 Floods

As rebuilding was under way, the monsoon rains in August and September 2011 struck the southern and eastern regions of Sindh, leaving 796,862 houses damaged and more than 9 million people in Sindh and Baluchistan displaced. In September, four days of torrential rain hit Jacobabad, depositing 491 mm. instead of the usual 15 mm. of water.⁶⁰ The disaster confirmed an ongoing need for flood management, disaster risk reduction and flood-resistant construction techniques. UN-Habitat, with funding from CERF, provided emergency assistance to the worst affected district of Tando Muhammad Khan, providing basic shelter and WASH.

The CERF emergency project in Sindh was one of UN-Habitat's best emergency shelter projects, providing materials for 6,345 temporary shelters, 1,020 flush latrines, and 330 hand pumps. UN-Habitat also installed 70 lead pumps to provide a stable source of potable water.⁶¹ Houses were constructed for PKR15,000 from a bamboo frame, stem (*chik*) and plastic sheeting that beneficiaries used both for tent construction at the evacuation site and for a shelter when they returned to their villages of origin. There, villagers upgraded them into beautiful Loh-kat houses, plastered with mud.⁶² The disaster risk and reduction elements included treated posts covered with plastic and the K-technique to strengthen the truss frame of wall.⁶³

This concept of incremental upgrading was uncommon in the area and its introduction was particularly useful, as most funding was exhausted during the emergency phase before flood waters had fully receded and villagers were able to return home to rebuild. This methodology was applied after the emergency phase in Tando Muhammad Khan district in Sindh and should be studied for future replication.

60 *Sitting in a natural depression, parts of Jacobabad are still under water. Mud houses there were dissolved by torrential rain from the top down.*

61 *To minimize the spread of disease, UN-Habitat provided 5,600 hygiene kits and conducted over 1,500 health and hygiene sanitation sessions.*

62 *Often, women plastered the interior and exterior of the shelter. For examples of housing, see Technical Annex.*

63 *See Technical Annex for explanation of building materials and typologies.*

2012 Floods

The floods caused by the rains of 2012, although significant, were far less devastating in scale than in previous years, except in N. Sindh and Baluchistan, where the rain was 200 times the normal amount. Unfortunately, this was also an area where mud construction was used, which was less durable.

4.2.1 Shelter

The construction typologies used in Pakistan vary by region according to their durability and cost, as well as tradition (Box 4.1). In the UN-Habitat projects, advice from Project staff also influenced homeowner choices.

BOX 4.1: Shelter Typologies

1. Mud, mixed with straw and sand, piled loose and shaped to dry
2. Sun-dried bricks with mud mortar (adobe)
3. Wattle and daub (Loh-kat) mud mixed with straw with bamboo frame
4. Fired bricks with mud mortar (katcha)
5. Fired bricks with cement mortar (pacca)
6. Concrete blocks with cement mortar (pacca)
7. Bhatar dried stone with wooden planks at different intervals
8. Dhajji timber frame with an infill of small stones in mud mortar
9. Confined masonry and Reinforced masonry with concrete blocks or fired bricks and cement mortar.

*Note: Dhajji and Bhatar are area specific*⁶⁴

64 *Dhajji is only in Azad Jammu and Kashmir and Bhattar in Khyber Pakhtunkhwa.*

Seven construction options were originally envisaged in the Pakistan Settlements Flood Recovery Project's project document and four options in the DFID shelter interventions to suit various seismic zones and flood conditions. Dhajji houses are found mostly in the earthquake zone of AJK, and Bhatar in KP. Housing in Punjab, Sindh and Baluchistan was mud, adobe, Loh-kat, fired brick and cement block.

In Pakistan terms, a shelter built with flimsy materials that may have to be patched or rebuilt each year is called *katcha*, meaning weak or flimsy. A shelter built with sturdy materials is called *pacca*. However, the materials used in different regions to achieve that varies and so does use of the terms. In the list of typologies above, the first four building types are considered not very durable, although fired bricks with mud mortar were also called *pacca* in some projects.

In the Technical Report (Annex VII), there is evidence of how poorly the mud mortar held up in flooding, compared to the cement mortar. The fired brick did not usually dissolve but the house crumbled when the mortar failed.

Mud and adobe have been made much more flood-resistant in some experiments due to the infusion of lime in the mud as it is piled into walls or shaped into sun-dried bricks. Adobe bricks are made *pacca* when clad to the flood level with fired bricks and cement mortar and *katcha* houses can be reinforced with lime or bitumen plaster and reinforcements along the exterior seams or with roof overhangs that protect the wall joints.

Because the Office did not keep records on the number of shelters constructed under the various typologies, it is not possible to know how the 33,366 shelters under the Pakistan Settlements Flood Recovery Project and 3,770 under the DFID programme were built and with what disaster risk reduction methods, except through recent assessments of damaged shelters. According to the Field Visits notes, shelters visited mostly did not have bitumen plaster or pointing as disaster risk reduction measures for added resilience.

Shelter Costs

The cost of materials varies between provinces. As beneficiaries were meant to pay for half of the value of their shelter as the 50 per cent community share, and they were given PKR39, 500 by UN-Habitat with the total value of the shelter estimated at PKR80, 000 depending on the model used. Adobe or mud shelters cost less than PKR80,000. Loh-kat shelters cost around PKR 40,000.⁶⁵ Calculations also included the value of salvage materials but most people did not have access to those. Nor did they earn money through cash for work by clearing the site, as the Project document had envisaged. It was not clear how many beneficiaries paid for laborers.

UN-Habitat also paid for latrines and community infrastructure, and required a community share. The calculation of budget for community infrastructure and latrines was undertaken proportionately by shelter: USD147 for community infrastructure for every shelter, with one latrine per shelter⁶⁶, making some allowances for community needs, availability of materials, local skilled labour and the capacity of the Provincial and Area Offices to meet the deadline for the submission of proposals.

Quality Assessment

While UN-Habitat made its reputation after the 2005 earthquake due its technical training and inspections to remedy flaws, it did not fulfill either of those roles well in its flood response projects. They should be a focus in future. One UN observer said, "All the agencies had some good housing and some bad housing," indicating that UN-Habitat was not pre-eminent in the quality of its shelters.

An internal rapid assessment on the impact of 2012 rains and flood on UN-Habitat shelters⁶⁷ found that, of the 8,000 houses visited, 2,400 were either partially or totally damaged.⁶⁸ The technical assessment covered Jacobabad, Jaffarabad, Naseerabad, Rajanpur, Shikarpur and Dera Ghazi Khan districts, and noted that about 80 per cent of

⁶⁵ In Khyber Pakhtunkhwa it was PKR55,000.

⁶⁶ UN-Habitat Standard Operating Procedures, 2011 page 8. DFID houses did not have latrines.

⁶⁷ Report of Rapid Assessment of 2012 Rain and Flood affected Areas of UN-Habitat Intervention 2010-2012 page 4.

⁶⁸ 1200 damaged and 1200 destroyed, in the samples accessible for visits. See more details in the Quality Assurance section, below, and see photos in the Technical Annex.

Table 4.1: Damaged shelter by type of house

Shelter typology	Total of accessed shelters	Partially damaged	Partially damaged/ per cent	Completely damaged	Completely damaged/ per cent
Brick with mud mortar	6,149	828	13	181	3
Adobe	1,815	379	21	1,017	56
Mud	12	4	33	3	25

the damaged shelters were *katcha*.⁶⁹ As indicated in Table 4.1, adobe sun-dried mud bricks with mud mortar fared poorly compared with fired bricks; approximately 56 per cent of newly-constructed adobe houses assessed were completely damaged and 21 per cent partially damaged.

Photos in the Technical Report (Annex VII) demonstrate that fired-brick shelters with mud mortar are *katcha* and were easily damaged when the mortar dissolved. Fired-brick shelters with cement mortar are *pacca*, and withstood the flood. UN-Habitat seems to have called fired-brick shelters with mud mortar *pacca*, and did not offer the cement mortar that makes a real *pacca* shelter, although the additional cost of mortar should not have been that high.⁷⁰ However, 84 per cent of fired brick shelters built with mud mortar using bitumen plaster or pointing survived.

The mud houses assessed (Three samples out of the 12 selected for the assessment) revealed that 25 per cent among them were completely damaged and 33 per cent partially damaged; a total damage of 58 per cent based on 12 samples out of 30 houses constructed in Jaffarabad/Naseerabad districts (Baluchistan province).⁷¹

The assessment notes that most of the areas were still under water, indicating that the surveyed areas emerged more quickly from water, which partly explains the large number of 'partially damaged' shelters.⁷²

69 UN-Habitat. *Rapid Technical Assessment of Damage and Needs for Reconstruction in Housing Sector*. October 2010.

70 *Maybe PKR2500 more. While cement mortar may have been offered, some homeowners said they were told by UN-Habitat staff which materials to use according to their degree of poverty.*

71 *Table from report by Ms Marina Mucciarella of UN-Habitat.*

72 *Report of Rapid Assessment of 2012 Rain and Flood-affected Areas of UN-Habitat Intervention 2010-2012* 12pp.

The Regional Office for Asia and the Pacific said that such rains occur once in a century and were unlikely to recur soon. The Country Programme Manager noted that the adobe houses in Jacobabad mostly survived even though they received rain and flooding but in Baluchistan they did not perform well. The Country Programme Manager conceded there may be other reasons for damage apart from the force of the rain and the choice of materials—such as quality of construction and perhaps of materials. That is something UN-Habitat Country Office should be investigating as it undertakes remedial works to repair the shelters.

Floods of great magnitude such as those in 2010, 2011 and 2012 were not uncommon in Baluchistan and Sindh. Beneficiaries traced a history of floods in the area that dates back to 1974 and 1979, where flood waters rose as much as five feet and damaged most mud and adobe houses. The recurrence of predictable floods enabled communities to develop extraordinary resilience without resorting to excessive loans.

According to the information gathered by the Evaluation Team, village people knew the technology to withstand floods with minimal damage to shelters but did not have the money to pay for it.⁷³ They knew they should use fired bricks with cement mortar but did not want to end up heavily indebted.

Some beneficiaries in Baluchistan (Muchi Mauri village) said "UN-Habitat did not listen to us." Many were satisfied they had received some support to build their shelter, even though they knew it might prove to be vulnerable as it was not *pacca* (fired bricks with cement sand mortar). A number of villagers complained that in hindsight they

73 *This was also confirmed in the findings of UN-Habitat's own Flood Response needs assessment. See Document list in the Appendices.*

could have made a *pacca* house if they have been provided this option and would have contributed money from their own resources or borrowed it, or sold their livestock, to make a safer house.⁷⁴

Since damage from the torrential rains varied, the main causes of failed shelters stemmed from inadequate construction for the risk, mostly due to lack of resources on the part of the homeowners, and flawed construction due to inadequate oversight by UN-Habitat. At issue was both the choice of building material and flood-resistant methods of construction. The poorest communities often could not contribute the 50 per cent share required and used all they were given on the cheapest materials and methods.⁷⁵

The issue of quality versus quantity arose repeatedly, as cutting costs on disaster risk reduction measures in order to fund more shelters is of limited value if the shelter is ruined in the next flood.⁷⁶ Much of the housing in Pakistan is *katcha*, and many beneficiaries in this project were grateful for the much better quality home they received. However, the aim of UN-Habitat was to use designs based on local materials, not necessarily to provide a *pacca* house, and it did not calculate well the added value of plaster or a roof overhang in areas of high-risk.

Another option is to devise new flood-resistant building techniques that are more affordable. Indeed, the Pakistan Settlements Flood Recovery Project's project document states, "UN-Habitat is presently testing the best response with national and international specialists with regard to adobe building. It is also undertaking a test project, of a very low cost shelter".

The Evaluation Team did not see evidence of this. The aim of such as a test was to inform policy on the optimal technology for shelters in the flood-prone areas, at a time when a significant amount of public funds and international support had been committed for shelter. DFID is now funding a test project to construct low-cost model shelters in Sindh. They infuse mud with lime to make it durable and water-resistant, with an enlarged 'toe'

foundation.⁷⁷

As previously stated, UN-Habitat encouraged fewer disaster risk reduction standards in the shelters, to minimize cost. The Country Programme Manager spoke of other shelter specialists who focused on the roof, while UN-Habitat, he said, focused on the foundation. Clearly, it is not an either-or situation, nor should it be. A shelter in standing water for months is still likely to collapse and a shelter inundated with torrential rain risks dissolving from the top, demonstrating the need for a protective roof with eaves, gutters and plaster pointing. Thus far, provincial Governments have not introduced flood-resistant construction standards, and they would have trouble enforcing them unless they could provide the funding.

4.2.2 Water and Sanitation

UN-Habitat's WASH project covered the provision of safe drinking water, a comprehensive awareness campaign, training of community masons and mobilizing village sanitation committees for those affected by the 2010 flood. Community water pumps were provided in all the villages however the quality of water was not tested for drinking purposes. In the CERF-funded project, communities were provided with filtration units which they readily used.

The Pakistani approach towards total sanitation aims to create an Open Defecation-Free Community.⁷⁸ Provision of latrines was a required component of the Pakistan Settlements Flood Recovery Project to cultivate the practice of hygiene and sanitation. However, many households did not use latrines because they lacked the water supply needed for such types of latrine⁷⁹. Why this limitation was not considered in the UN-Habitat plans is not clear. Villagers did not want a dry pit latrine, and UN-Habitat did not find a solution for them: either providing a pump or offering a different model of latrine to meet their constraints. This is an oversight issue, indicating lack of an adequate referral process to resolve technical issues.

74 This was confirmed by homeowners interviewed by the Evaluation Team in Jacobabad. Although fired bricks are considered *pacca*, it is much more so with cement mortar instead of mud mortar

75 The exception was for Loh-kat shelters where the UN-Habitat payment covered materials and labour, according to the UN-Habitat Country Programme Manager.

76 This issue was also raised in the evaluation of the DFID project.

77 Implementing partners are IOM and ACTED. See photos in the Technical Report.

UN-Habitat could have been involved, rather than criticizing the effort.

78 Early Recovery Program for Rural Sanitation Project Document, UN-Habitat.

79 For some reason, pit latrines were not an acceptable option for the community.

The implementation policy also contributed to the number of unused latrines. CERF and the Pakistan Settlements Flood Recovery Project prescribed one latrine per shelter. The customary practice allows two or three families to share a common latrine—which has helped ensure maintenance. The results was that for every three latrines, at least one was used for storage and other purposes.

The amount of community share was also a factor for the completion of latrines. The total cost of PKR18,000-20,000 per latrine with the 50 per cent (PKR9,000-10,000) beneficiary share was beyond the capacity of most beneficiaries, resulting in incomplete latrine construction.

The national consultants on the evaluation team found that latrine construction was not well executed, especially in Sindh. In Karim Dad Lund, for instance, only 117 of 407 latrines were completed. Most of the latrines observed were either not in use or used for other purposes, such as storage of wheat and rice and other household items. This was particularly common in communal latrines serving more than two families.⁸⁰

Beneficiaries used the bricks meant for the latrines to construct or improve their house. They saved cement and bricks (or money) intended for the latrine by making it undersized and with a weaker cement-sand ratio, and used the extra money on the shelter. This raises questions about the community consultation process.

In total 22,000 latrines were constructed but not necessarily maintained. Of the latrines viewed by the Evaluation Team during its field visits, a majority were unused and in poor condition.⁸¹ They said one of the main reasons was the lack of water supply⁸² but beneficiaries were not accustomed to latrines and they were not a priority need.

Often, in Sindh and Baluchistan, even when the latrine was completed, the septic tank was not, making the public hygiene benefits of the latrine redundant. Homeowners were expected to build a

lid on the septic tank, but most did not.⁸³

The slabs of the septic tanks also were noted to be of a lesser dimension than the specifications. In some instances, the slab was smaller than a manhole. In Sindh, more than 30 per cent of septic tanks inspected were under-sized or not provided. Where they were not provided at all, the pipe was directed to an open drain in the street.

In Karim Dad Lund, there were instances of the community refusing to provide their share for latrine construction.

In Khyber Pakhtunkhwa the community used the latrines due to adequate water supply and private spaces provided for women. However, since the money for the homeowner's share of the latrine was raised by the man of the household who was unlikely to use it, the latrine might not be built. On the other hand, latrines were appreciated by women, as it meant they did not have to go out to defecate in the dark. The provision of a water pump further eased the life of women, many of whom had to travel some distance to collect water.

The influence of men on decision-making was evident with septic tanks in Sindh; these were women's priorities but were not completed by the men, who prioritized the shelter. It was not uncommon for women to prioritize health and sanitation. However, as resources became limited, men allocated resources to shelter and left latrines incomplete.

The contribution of UN-Habitat in providing latrines and hand-pumps were acknowledged in many villages where they were functional. The best results of latrine projects were noted when wash water⁸⁴ was available.

In Khyber Pakhtunkhwa and the Punjab, where wash water was abundant, latrines were well maintained and beneficiaries reported marked improvement in their hygiene and sanitation practices as a result of the trainings. In contrast, many beneficiaries in south Sindh did not use latrines due to lack of water supply or diversion of the latrine funds to the shelter, and no marked improvement in beneficiary

80 Normally, three houses share a latrine, so the other latrine rooms could be used for other purposes.

81 Some community latrines were built under the DFID project but they were not always maintained or used either.

82 The latrines constructed were in nearly all cases ventilated improved pit latrines, which required two to three liters of water for cleaning.

83 There was some question as to what will happen to the septic tanks in the next floods. Perhaps they should not have a concrete base.

84 Water supply for washing purposes and does not refer to potable water.

hygiene practices was reported to the Evaluation Team. Some women also asked about the provision of a wash stand and water system including a bathing facility for women, or a *purdah*⁸⁵ wall. The WASH package offered was not consistently reflective of community desires.

Relying on future community capacity to complete the projects can defeat the purpose of recovery. Several months after the delivery of project inputs, shelters and latrines remained incomplete and unused. While technical support was provided independently by experts, there was little integration of the inputs at the field level by UN-Habitat monitors. How project inputs were brought together, organized and delivered as a coherent package was not clear, and they varied from village to village.⁸⁶

Behaviour Change

Hygiene kits were delivered as an activity through a health and hygiene promotion and motivational campaign. Training programmes were conducted with the women of the community by the Social Mobilizers. Since a limited number of sessions were conducted—often only one—their effectiveness was not evident, although a few women reported to have learned the significance of washing hands and water treatment, which would be effective for disease control.

Many beneficiaries could mention the tangible inputs they received, such as shelters, latrines, roads, and hand pumps, but hardly recalled any change in knowledge or practices as a result of project inputs. According to the Country Programme Manager, the behavior change component included 2013 sessions on latrine construction, one-room shelter preparation, water purification; 4892 Hygiene mobilization sessions; 225 awareness campaigns through walks and mobilization; 267 community cleanliness campaigns and 145 street shows. But the Evaluation Team did not report evidence of these activities or analysis of their impact through monitoring.

Behavior change is based on an assumption that telling people the value of change will convince them. Instead, one has to examine the structural issues in each area that might prevent people from listening to the message or altering behaviour.

4.2.3 Community Infrastructure

Community infrastructure was identified through a participatory process and included access roads, culverts, community centers, mosques, water ponds, irrigation channels, drains, solar lighting, biogas and a wetland. Infrastructure was integrated into the overall project delivery.

However, the choice of project seemed unpredictable and UN-Habitat pilot projects like the wetland in Gul Muhammad Gandhro village (Thatta district) and biogas in Walwat village (Muzaffargarh district) hardly contributed to the early recovery of target beneficiaries. They should be classified as development projects, probably not applicable in many areas. UN-Habitat also reported planting a large number of trees—seven per household and many more throughout the community but these were not observed by the Evaluation Team. Provision of solar lighting was a very useful intervention for the houses for CERF beneficiaries in Tando Muhammad Khan. The families were very satisfied with the lanterns and took good care of them.

There are policy, operational, and capacity challenges that need to be considered in the implementation of similar projects. Timely availability of technical specialists in the field was necessary to ensure a quality outcome for each input. The competing demand for technical support meant that implementation of an integrated recovery package was bound by capacity limitations in a project that was otherwise highly participatory.

⁸⁵ *Purdah is a conservative tradition limiting the exposure of women.*

⁸⁶ *See Field Visits section for details of varied facilities in villages.*

4.2.4 Modalities of Implementation

UN-Habitat follows four modalities of implementation:

Community contracting—communities through citizens' community boards (CCBs) and community-based organisations sign contractual agreements to manage and implement shelter, sanitation and infrastructure projects, with UN-Habitat providing funding, training and facilitation—but the large number of contracts implemented simultaneously and weak citizens' community board or community-based organisation capacities often resulted in insufficient oversight.

NGO contracting—an NGO is hired to implement project activities with UN-Habitat monitoring progress and evaluating the contractor's performance. National NGO Youth Action for Pakistan built 2700 shelters in Jacobabad, according to the wishes of the donor, DFID.⁸⁷ These shelters also had problems, due mainly to inadequate oversight of the construction process. Seven hundred shelters had to be repaired or replaced. It is not clear if the damaged shelters had been built by direct implementation or through a community-based organisation as Youth Action for Pakistan used both methods.

Direct implementation—UN-Habitat implements projects directly through deployment of project staff it has hired. In practice, the direct implementation modality makes use of extensive community participation from project inception to completion but does not depend on a community organization to deliver its target. Accountability lies entirely with project staff and issues with beneficiaries can be immediately addressed.

Direct Implementation was applied in one CERF project in Tando Muhammad Khan in Sindh in 2011, where the emergency required a swift response, and has been a regular UN-Habitat practice since 2009. A UN-Habitat project implementation team purchased the material in bulk, stored it in rented warehouses and distributed the material to the community.

87 The evaluation of the DFID project found that YAP lacked the capacity to oversee construction of shelters. See Documents: McKay, Jennifer. **Community-Driven Shelter Interventions in Sindh**

Communities were organized into committees and trained by type of activity they implemented. The committees were not registered and no legally-binding agreement between UN-Habitat and the committees was made. Committees worked alongside of the UN-Habitat project implementation team. This Shared Implementation was very effective at transferring skill.

Commercial contracting—project activity is contracted out to a corporate firm on a competitive basis based on procurement procedures.

Community contracting is the first choice of four modalities, as it embodies UN-Habitat's commitment to and success with the People's Process drawn from post-disaster experiences in many countries.⁸⁸ Central to the success of this method is UN-Habitat's emphasis in training communities to exercise decision-making and controlling their own outcomes, using the project as the learning environment.

A key feature of community contracting was the transfer of responsibility to manage the project's financial resources from UN-Habitat to community organizations.⁸⁹ The transfer of responsibility through Community Agreements signed between UN-Habitat and citizens' community board/community-based organisations⁹⁰ was meant to empower communities to manage contracts, take decisions over allocation of project funds within their jurisdiction, procure project materials and carry out internal monitoring and reporting under the oversight of UN-Habitat. Community contracting eliminates the transactional cost of the middle man, and allows communities to decide their priority needs and spend project resources judiciously. The entire process and its results were meant to be managed and owned by the people. However, as this was not a long-term development partnership but an early recovery project, it seems clear that a combination of implementation modalities should have been

88 The UN-Habitat Country Programme Manager disputes this term as depicting what the Pakistan Office did. It was not so well developed, just working together with the communities.

89 Community organizations are meant to represent the cross-section of communities in membership, implementation of project activities and decision making.

90 Citizen community board/community-based organisation.

used according to the capacity of community-based organisations, local NGOs and contractors.⁹¹

In 2011, UN-Habitat signed 539 Community Agreements with citizens' community boards and community-based organisations. About half of the community-based organisations were already established but some had no record of achievement. UN-Habitat had to set up many of the boards and they often were the most earnest implementing partners.

Nonetheless, there were problems with the community agreements, from beneficiaries unable to pay their share, to disputes between members of the community-based organisations, to fraud and mismanagement leading to legal disputes. In some areas, such as Larkana in Sindh, these organisations depended on UN-Habitat staff to assist in the selection and purchase of materials, which was against Standard Operating Procedures.

Community Agreement Process

UN-Habitat offered an integrated package of assistance including shelter, water and sanitation, hygiene promotion, and community infrastructure. The implementation process involved 11 steps, based on engaging communities, beginning with social mobilizers from the area who met with community representatives to explain the aim of the project and the community role in the process. A UN-Habitat Household Survey social and technical team then identified vulnerable households. The community made an action plan, and then project proposals to submit to UN-Habitat. Once the contracts were awarded, the community managed the project, procuring materials and services, and handling construction and monitoring of the community-based organisation.

Project Committees for shelter, WASH and community infrastructure were meant to be formed consisting of beneficiaries and community-based organisations to ensure quality. UN-Habitat offered training to the community organisations in management, procurement, construction, and monitoring, as well as ongoing technical and financial support. Monitoring of project activities was meant to be jointly carried out by the community and

⁹¹ It was not clear to the Evaluation Team how much work UN-Habitat staff actually did in assisting with construction or in hiring local workers as opposed to what community based organisations arranged.

UN-Habitat.⁹² However, training in management, construction, disaster resource management, hygiene, gender, land and property rights and so on is a lot of training to offer and expect the community to master it all and become capable monitors and managers in the period of a few months. An assessment should be conducted of the value and retention of training offered by UN-Habitat, to examine its impact.

Project staff and communities reported that, despite its challenges, Community Contracting was the most effective and efficient way they had of implementing early recovery and development projects. The alternatives were worse. Some anecdotal evidence points to the advantages of working with local communities, where newly-formed citizens' community boards tend to allocate resources more effectively by being more careful and thrifty in order to cater to other needs with residual funds. In some villages, the community boards and organisations can help to prevent interference by local politicians. In Multan, they helped to minimize the impact of delays of fund transfer from UN-Habitat by obtaining credit from informal sources. In many villages these local boards and organisations successfully carried out project support roles such as procurement, record keeping, reporting, mobilization and community outreach.⁹³

In other places, UN-Habitat staff had to manage the financial records, assist more in procurement, do more of the construction work, and deal with corruption. While the community modality is meant to be democratic and participatory, a few community-based organisations are headed by landlords who favoured their own families and tenants in the beneficiary selection process. In the earthquake reconstruction, homeowners controlled the process and were given funds directly.

The Evaluation Team visited only five per cent of the villages covered by the Pakistan Settlements Flood Recovery Project but found a reoccurring problem with community contracting. The Muzaffargarh District Coordination Officer said, "We deceive ourselves into believing that we are bringing real

⁹² This is the methodology UN-Habitat outlines in *Implementing with the community*.

⁹³ UN-Habitat reported that villages on right of Indus River in southern Punjab were good examples of projects, and they had effective social mobilizers and engineers. Almost all those community-based organisations had savings and finished their project plan.

empowerment to the people by relying on these community-based organisations." Project staff felt that, although community contracting was the right mechanism to empower communities, the selection process of citizens' community boards and community-based organisations was weak and done hurriedly to implement projects. A properly-vetted NGO might have done better work.

The large amount of funding flowing into citizens' community boards and community-based organisations with weak controls led to corruption within them and by some Project staff. As a result, 25 per cent of Community Agreements were deemed problematic, including some corruption cases with complaints involving the leaders of citizens' community boards and community-based organisations leaders (and some UN-Habitat staff) being pursued in local courts. It is uncertain whether UN-Habitat will be able to recover the funds, which are not significant—less than one percent.⁹⁴ Meanwhile, homes remain unfinished until those cases are resolved. The UN-Habitat Country Programme Manager says they had 68 problematic cases, and recovered 33 per cent of the funds.

Selection of Beneficiaries

Selection of the number of beneficiaries to be included was based on a range of criteria, using different shelter models, costs, implementation modalities and required community share.⁹⁵ According to the UN-Habitat Country Programme Manager, in the earthquake response, the government had a compensation policy and beneficiaries were identified by the committee formed by the government. In the Pakistan Settlements Flood Recovery Project there was no government policy of reconstruction and a well-being ranking was used to identify beneficiaries—a process open to error and influence.

The UN-Habitat Country Office set the national overall target for shelter based on two levels of vulnerability. Beneficiaries under the vulnerable (V) category do not exceed ten per cent of the total household population of a target revenue village, and beneficiaries enrolled into the Extremely Vulnerable (EV) category do not exceed ten per cent

of the vulnerable (V) households.⁹⁶ Determination of the number of beneficiaries appears to be consistent with the Provincial Disaster Management Authority targeting scheme for flood affectees. The UN-Habitat Country Programme Manager says they were flexible in their consideration of vulnerability.

The shelters reserved for the extremely vulnerable were paid for by UN-Habitat and built by the community-based organisation. Due to funding, the number assisted failed to match the needs, given the level of devastation in the area and the already impoverished circumstances of so many households. This was a problem across the entire flood-affected area and reflected the shortage of funds to match such huge demand.

Beneficiaries were selected based on certain social vulnerability indicators (widow, orphan, disabled, chronically ill, and elderly) and physical or asset-based indicators (such as availability of shelter and land to cultivate). Potential beneficiaries were ranked according to their aggregated scores on all applicable indicators.⁹⁷ Only community members who had lost their shelters were eligible to become beneficiaries, not those who wanted to repair them.⁹⁸ The role of the citizens' community boards and community-based organisations was important in pre-selecting potential candidates, and in some cases they assessed a potential beneficiary's vulnerability status.

The selection of the Committee (both Chairman and members) was at times done in consultation with the landowner or other influential people in the village, resulting in the construction of shelters for their tenants or relatives who did not fit the description of 'vulnerable'. For instance, in Karim Dad Lund (Dadu, Sindh), the Chairman and the President of three community-based organisations was the son of the landlord and was so influential that he gave 15 per cent of the shelters to extremely wealthy families. A number of beneficiaries had

⁹⁴ About USD120,000 still to be recovered.

⁹⁵ Further discussed under Findings.

⁹⁶ *Standard Operating Procedures, Pakistan Settlements Flood Recovery Project (PSFRP). Frequently Asked Questions.*

UN-Habitat Pakistan, 2011, page 3.

⁹⁷ *Family Head is a widow/disabled = 3 points. If widow has children (male) over 18 years then widow = 1 point ; Orphan/Chronic patient = 2 points; extreme poor/elderly = 1 point. Family Members—if any other member of the family is vulnerable = 0.1 point.*

⁹⁸ *Standard Operating Procedures, Pakistan Settlements Flood Recovery Project (PSFRP). Frequently Asked Questions. UN-Habitat Pakistan, 2011, page 2.*

three to five room 'shelters', fully furnished, with a number of modern appliances. When challenged, the Chairman responded that he had never been told that the beneficiaries needed to be vulnerable but thought that every flood affectee could be a beneficiary irrespective of his wealth. In Karim Dad Lund a number of the 453 shelters constructed had questionable identification criteria.⁹⁹

In Sindh and Baluchistan, where landlords have significant influence and control, they could play a key role in the formation of community-based organisations and citizens' community boards due to their leadership, level of literacy, and availability to implement project activities. In Sindh, many of the heads of citizens' community boards and community-based organisations are landlords who have close affinity with local leaders and government officials.

Landlord influence helped facilitate target delivery but undermined some fundamental issues of the beneficiaries' social protection. Although an ownership certificate or landlord affidavit was supposedly required for each beneficiary, there were no affidavits signed from landowners to provide a sense of tenure security to beneficiaries who did not own the land where their shelter had been built.

Community Share

The Programme required that all but extremely vulnerable beneficiaries contribute 50 per cent of the value of their shelter and latrine. Those who could afford to pay a share did so through their own labour, by borrowing money, salvaging material or selling livestock. The amount and type of community share largely depended on the type and purpose of the project implemented. Community infrastructure projects such as water systems, street pavement, and culverts intended for communal use did not require a community share.¹⁰⁰

Mobilizing for community share is an overall success, with most shelters completed and

occupied by beneficiaries. The use of community share on latrines proved less successful, with funds diverted or use of the space altered to suit other needs. For many beneficiaries mostly in Sindh and Baluchistan provinces, strict enforcement of the 50 per cent community share ignored people's real capacities and undermined UN-Habitat's ability to enforce quality standards.

In Gul Mohammad Gandhro in Sindh, 30 per cent of the cement-block shelters were unoccupied due to beneficiaries' inability to pay their share. Houses that were unfinished tended to be incomplete at the roof level because resources ran out. As UN-Habitat paid in instalments, at the plinth or foundation, sill, or lintel level, and then at the roof level, it should have required the community share to be demonstrated at the earlier stages in construction, with UN-Habitat withholding the final instalment to assure the roof was provided.

UN-Habitat's Country Programme Manager said that, just because it took longer for the poor fisherman resettled in that project to build these more expensive houses, this does not represent failure. This ignores the design flaws—the houses had a foundation resistant to floods that was not needed on the hill. He says UN-Habitat noted that, by the end of 2012, more people had finished their shelters and latrines but without specifying numbers. It is not clear where they are living in the meantime, as the fishermen travel to Karachi to work.

The purpose of the project was not to take years to build a dream house. The Regional Office for Asia and the Pacific advised midway that the project be aborted, but homeowners had invested too much to abandon it. This was a unique example but showed how an inadequate monitoring and oversight system allows projects like this to be implemented. It also raises questions about the facilitation process that advises communities of the construction options that match their resources and needs.

4.2.5 Disaster Risk Reduction

In meetings in May and June 2010, before the monsoon flood, UN-Habitat had identified the Indus basin and mud houses as having the highest risk vulnerability to disaster. These meetings were among technical stakeholders (academic, government, NGO, United Nations) to prepare them to have to appropriate technical advice for

99 *The Country Programme Manager says that everything in that case was done wrong by the UN-Habitat team, which was disciplined; legal action was taken against the community-based organisation and staff when matters were discovered. It remains one of the pending cases with the police and the courts.*

100 *Report on Rapid Assessment of 2012 Rain & Flood affected Areas of UN-Habitat Intervention 2010-2012, UN-Habitat (undated). Some latrines were for community use but the projects failed, in part because women did not accept sharing them with men.*

shelter construction as well as settlement mitigation issues, when the need arose. It seems to have made no difference.

There was no record provided by UN-Habitat as to the disaster risk reduction measures used per shelter. Incorporating optimal disaster risk reduction construction methods for flood resistant shelters was not the priority. Even when UN-Habitat endorsed a disaster risk reduction technique, such as plastering, the Team noted that it was often not done. Other suitable measures such as pointing or cladding adobe with fired brick were often not properly done, due to inadequate oversight and training, or an inspection and remedial process. This was the reason why many houses later failed when subjected to more rain and standing flood water. This ambivalence to ensuring the quality of construction is a major concern, especially given the view that this is UN-Habitat's area of expertise.

Although UN-Habitat lists disaster risk reduction activities as part of its programme throughout the country, they were not in evidence, apart from a board game to be played in schools. The UN-Habitat Country Programme Manager mentioned all the disaster risk reduction work it did through the Shelter Cluster—which had posters, billboards and radio programmes—but the head of that Cluster did not mention a role by UN-Habitat, which was just one member. The Evaluation Team saw no signs of these disaster risk reduction activities while in the field, nor did beneficiaries mention them.

Using stone or fired-brick foundations, lime or cement mortar pointing, cement sand plastering on walls, plastic sheeting, raised plinths, cladding of fired bricks on sun-dried bricks are methods to increase resilience. While it was known that mud mortar with fired bricks was a vulnerable building technique, it was still offered by UN-Habitat as an option. The Country Programme Manager said that none of UN-Habitat designs recommended using mud mortar without cement pointing, plastering or bitumen plaster up to the flood level. There is no record of which of these disaster risk reduction methods was used on each shelter to make it more resistant.

The communities had weak or no understanding about environmental risk or disaster prevention. The Pakistan Settlements Flood Recovery Project's document lists identifying resettlement options for

populations living in areas threatened by repeated flooding as an objective but the Government did not approve.

This would have addressed needs much the way the Virtually Landless programme in the earthquake zone moved households living on hazardous land to safer ground, where available. However, alternative land is not easy to find. Land reallocation was not something undertaken by the government to mitigate risk in the flood areas, and remains difficult in the country.¹⁰¹

Village resettlement as a disaster risk reduction strategy was used on one occasion in the UN-Habitat flood response, in Sindh, where a whole community was resettled to higher ground.¹⁰² A total of 113 shelters and 42 latrines were constructed according to a flood-resistant design, with a lot of investment in a stronger raised-concrete foundation. However, the primary hazard the community faced at the new location was not flooding but strong winds that hit the village several times a year.¹⁰³ Around 30 shelters (29 per cent) were not occupied because the roof was not completed and beneficiaries were unable to produce their share of the construction costs. This sort of mistake should not happen, given the teams of technical specialists and social mobilizers hired by UN-Habitat.

4.2.6 Ongoing Issues

There were many problems with community agreements, including disputes between heads of community-based organisations and between members and their leaders and disputes with UN-Habitat. However, community-based organisations run by even one active, competent person could work reasonably well.

Not only were there a number of ongoing disputes over Community Agreements, leading to their termination or legal action. There were questions raised over the implementation modality with Citizens' Community Boards and community-based organisations, which lacked the capacity to oversee rather complex procedures or the construction process. Some were opportunistic. Others were conscientious and hardworking. However, there was little opportunity for UN-Habitat to build the

¹⁰¹ *By the Shariat Court in 1989. See A Guide on Land and Property Rights in Pakistan.*

¹⁰² *Gul Muhammad Gandhro, District Thatta.*

¹⁰³ *Based on accounts of the beneficiaries.*

capacity of the local organizations. As a result, UN-Habitat staff did a lot more work on the projects than was envisioned. In general, monitoring and evaluation were inadequate, as was engineering oversight.

In sum, UN-Habitat's achievement in flood recovery is not certain. In the earthquake response, all affected were entitled to assistance. In the flood response donors wanted to reach the most vulnerable, but the neediest were not always reached. UN-Habitat does not have a full count of how many of the shelters it built were damaged by later flooding and how many were never completed.

The flood response programme faced problems typical of a large-scale disaster. Assistance did not necessarily reach affected persons, who had been displaced and were not home when project assessments were made to identify beneficiaries. Resources were insufficient to match the scale of needs. The humanitarian response to flooding assisted only 20 per cent of those affected. That suggests the rest either are living in the open, found temporary shelter, or managed to rebuild their homes through other means. It would be interesting for UN-Habitat to lead a stock-taking exercise with major donors in the sector, to see how people with no external assistance fared versus those given homes under aid projects. How did each build their home, at what cost and what quality?

The Country Programme Manager believes that UN-Habitat had a wider impact, and included those who did not receive any funding or who were assisted by NGOs. He observed in several districts people not covered by UN-Habitat's project had built similar shelters and followed UN-Habitat models, as had NGOs. However, this is something the Evaluation Team could not verify, as many agencies used the same models of one-room shelters.

4.3 CONFLICT RESPONSE

Another large programme area for UN-Habitat was the response to assist IDPs who fled conflict areas as the government pursued militants. These sorts of operations are likely to recur, and UN-Habitat now has varied experience in providing temporary shelter and community infrastructure.

The projects were funded by CERF, DFID, USAID, UNHCR, and KOICA (the Korean development agency), and consisted of transitional shelter for IDPs, community infrastructure for the host community, including expanded WASH to accommodate IDPs, and rehabilitation of the home villages once IDPs were able to return. What was most often noted was that the community infrastructure seemed more cosmetic than essential, as in resurfacing a road. In addition, there was no requirement for a community share, and limited community participation suggests that maintenance could be an issue.

The Evaluation Team had virtually no access to the areas of coverage, and therefore this project should have been assessed by a local evaluator with field visits and group interviews. Most of the information in this section comes from UN-Habitat staff and a report on the project instead of direct observation of infrastructure and discussions with community-based organisations and beneficiaries.

IDPs

Military operations in Khyber Pakhtunkhwa and the Federally Administered Tribal Areas (FATA) from April to June 2009 caused the displacement of 2.9 million people and unprecedented damage to critical social and economic infrastructure and human settlements.¹⁰⁴ Following government clearance for the return of IDPs, people who returned to their villages of origin needed basic infrastructure facilities to restart their lives and local economy¹⁰⁵. The ADB and World Bank estimated about USD1 billion were required to jumpstart reconstruction and recovery in KP and FATA.¹⁰⁶ Later, many infrastructure projects addressed the lack of maintenance, due to the long period of absence by residents.

At first, as communities were displaced, UN-Habitat worked with other agencies to identify and address needs. For the emergency operations of IDPs, UN-Habitat raised USD4.9 million in 2009-2010 from USAID, DFID, CERF, and UNHCR. The KOICA funds came later. With USD800,000 in CERF funding, UN-Habitat was able to provide emergency shelter, water and sanitation for IDPs and their hosts in NWFP and FATA. Its Basic Services Unit introduced hygiene kits and behavior change training.

¹⁰⁴ UN-Habitat Pakistan Agency Profile, 2012.

¹⁰⁵ Rehabilitation of Community Infrastructure and Facilities—A Project Document funded by KOICA, 2010.

¹⁰⁶ District Needs Assessment, ADB and World Bank

UN-Habitat then mobilized USD3.4 million from KOICA to launch early recovery support to IDPs, IDP host communities and IDP villages of origin. The assistance targeted Swabi, Mardan, Charsadda, and Nowshera as host areas, and Buner, Swat and Bajaur Agency as areas where IDPs returned. The project distributed tents and temporary shelters to IDPs in UNHCR displacement centres, and to host communities where IDPs found refuge.

By September 2009, 1.65 million IDPs had returned and found their villages and livelihoods destroyed. Community infrastructure such as village roads, water systems, and community centres were damaged. UN-Habitat undertook a variety of construction projects to upgrade existing infrastructure, including water and sanitation, roads, bridges and water tanks. It also helped 11,000 IDP families displaced in more than 600 communities in 15 Union Councils of Khyber Pakhtunkhwa with 9,552 tents, 1,090 temporary shelters, 5,530 hygiene kits, 2,550 house repair kits and 250 water pumps for expansion of water supplies for community infrastructure to provide better access.^{107, 108}

As of January 2010, 350,000 IDPs had not returned home, according to the government. Some said it was because they had no land or resources. Indeed, some returnees did have to fight to regain control of their land, which had been appropriated by others during their absence.

Infrastructure needs were faced by host communities, where some IDPs had lived for more than a year, straining water and sanitation facilities. They were assisted with upgrading of stairs, sidewalks, roads, and canals and other agreed projects. One report says an estimated 200 communities in the return area were assisted with the support of KOICA.¹⁰⁹ It was unclear how much host communities helped with construction as opposed to IDPs.

Process

As with other infrastructure projects, UN-Habitat had a community agreement process beginning with a participatory village assessment, identification of problems, planning, coordination with the local partner, and implementation. Often the analysis was determined by what UN-Habitat could technically support, such as the expansion of the water system, pavement, and repair of a bridge, road or sewage channel. The engineer prepared proposals with costing of the project activities identified. The Social Mobilizer organized the community to make a formal Agreement.

Under the KOICA project, 189 community organizations were registered and 740 proposals accepted. In Mardan and Swabi there were 103 projects for returnees, 533 projects in Swat, and 104 projects were approved in Bajaur Agency, benefiting 90 villages. Although, security risks slowed implementation, projects were finished by October 2012.

Proposals were endorsed by managers, from the district level up to the UN-Habitat Country Office in Islamabad. Project approval took between two to four months, and then funding was deposited into the account of the community-based organisation or Citizens' Community Board. The process at this stage is not clear, as the Evaluation Team was told that UN-Habitat staff accompanied the local community organisation to withdraw the funds, and the Area team led the purchasing of materials. The local organisation hired skilled and unskilled labour to do the work, under the direct supervision of UN-Habitat sub-engineers. Again, this section on Conflict Response was primarily self-reporting by UN-Habitat, with insufficient field access by the Evaluation Team.

Community share in the form of labor, cash, or locally available resources is central to the UN-Habitat participatory process because it embodies ownership, empowerment, and sustainability of projects, and is explained in the social mobilization process. However, it is not clear just how much the communities contributed their labour in these technical projects. Beneficiaries commented on not knowing how to maintain the projects.

107 *Facilitating Return of IDPs through Rehabilitation of Community Infrastructure and Facilities in Khyber Pakhtunkhwa and FATA. Completion Report. 2012 UN-Habitat.*

108 *See Conclusion on the Management and Reporting for additional information. The KOICA completion report does not indicate how many IDPs directly and indirectly benefited from each project activity.*

109 *A Youtube report by UN-Habitat Media posted 14 April 2012 accessible at: <http://www.youtube.com/watch?v=PPXPbbPsyjU> And 150 communities in the displacement area.*

Community Infrastructure Types

Infrastructure was damaged in the areas affected by the conflict, from which the IDPs fled. Some reconstruction was done for them once they returned home, such as the reconstruction/repair of village roads, irrigation canals, water supply, and community centers.

Most of the projects funded by KOICA renovated existing construction, such as stairs, sidewalks, foot paths, and street lights. They also dealt with water supply, through pumps, wells and water tanks, water channels, storm water drains, culverts, and sanitation. According to UN-Habitat figures, the vast majority of infrastructure projects repaired street pavement, link roads, irrigation canals, drains, and retaining walls. Out of more than 300,000 projects, only 190 were for new hand pumps.¹¹⁰

Although women were not a central focus on the implementation process, they did play a role in water and sanitation projects and in building and monitoring some of the community infrastructure. In Bajaur Agency, FATA and in Swat in Khyber Pakhtunkhwa, UN-Habitat mobilized women's organizations in communities that strictly observed *purdah*, which restricts the use of female workers.¹¹¹ The strengths and weaknesses of working with women's community-based organisations as an alternative delivery mechanism in locations that restrict access of women workers should be weighed against their capacities and ability of the UN-Habitat to provide technical support.

In the KOICA project, the integrated approach could have benefited from a training component for seismic-resistant housing. In this way, the communities of Swat and Bajaur, in seismic zone three, could have been sensitized about disaster-resilient construction. Some basic technical training for masons was conducted in Swat in the last phase of the project. However, communities and their organisations were unaware of the issue.

In Bajaur, where the communities were registered with the FATA Disaster Management Authority as Disaster Management and Development Committees, such trainings on safer construction technologies and disaster preparedness, not only in housing but in all the construction activities, could have been very helpful.

¹¹⁰ There were also drinking water supply schemes.

¹¹¹ Part of Islamic culture and tradition that restricts women's involvement in public life, often associated with gender bias.

The national consultants noted that disaster risk reduction was neglected in the design of water tanks in Bajaur, with no reinforcement to make them disaster resilient.

Unfortunately, the international evaluators were not given 'no objection certificates' to travel to Swat and Bajaur to observe the projects there. The national consultants were able to make a quick two-day trip to view a few projects.

4.4 DEVELOPMENT PROGRAMMES

Most of the projects dealing with long-term development were funded through One UN. From 2009 until the time of the evaluation, seven percent of UN-Habitat's portfolio has been spent on development programmes, totaling USD6million. UN-Habitat in Pakistan operates within a unique environment shaped by major disasters and increasingly complex and changing social and political contexts. The scale of unprecedented disasters since 2005 drew the attention of donors and the international community towards emergencies and recovery instead of development. A few events that contribute to the understanding of UN-Habitat's role in Pakistan include:

- The 18th Amendment to the Constitution of Pakistan became effective in July 2011, initiating a series of transformations in government through the devolution of powers to the provinces. As more power was devolved to local government, the struggle for power across political factions and ethnic groups continued to affect decision-making by the incumbents.
- Following the change of leadership, some major government functions were streamlined. In 2011 the Ministry of Environment, a UN-Habitat counterpart ministry, was dissolved and replaced by the Ministry of Disaster Management in early 2012—renamed in March 2012 as the Ministry of Climate Change and Disaster Management. These changes meant that UN-Habitat did not have an official government counterpart for more than a year.
- Increasing instability due to continued violence in some regions limited operations of ongoing programmes, as UN-Habitat continued to comply with UN security restrictions and limits on travel.

The overall donor support for emergencies has also declined. An observer noted that, in the 2010 floods, 80 per cent of the flash appeal was funded; 50 per cent in 2011 and a mere 25 per cent in 2012.

4.4.1 Basic Services

UN-Habitat is engaged in a range of projects related to water, sanitation and hygiene. This requires social mobilization for behaviour change, with recruitment and training of local villagers as mobilizers, as well as engineering for projects dealing with water and sanitation, hygiene and hand washing and environmental clubs in schools.

UN-Habitat is working with UNICEF in sponsoring environmental clubs and promoting gender mainstreaming in WASH. Water, sanitation and hygiene projects in the schools upgrade facilities and make schoolchildren aware of hygiene issues with hand-washing campaigns. To ensure sustainable outcomes of behavioural change efforts in school, integration of hygiene and sanitation into classroom instruction curriculum is necessary. UN-Habitat also worked with UNESCO to promote hand-washing in girls' schools. However, this sort of activity is difficult to assess, as it relies on self-reporting. Availability of water and soap at home is another important environment for creating the habit of good hygiene, not just rinsing hands under cold water at school.

While the full range of projects is beyond the scope of this evaluation, Basic Services Unit will continue its work under the new One UN programme (OP2), with the assistance of some private and corporate sponsors, such as the IUCN and Coca-Cola for water and sanitation.

4.4.2 Land Tenure and Rights

In 2008, UN-Habitat became a member of the Inter-Agency Standing Committee (IASC), an inter-agency committee for coordination, policy development and decision-making involving key UN and non-United Nations humanitarian partners. In the Pakistan Country Office, the Land Unit first dealt with the issue of landless and near landless after the earthquake of 2005 through a project that helped them purchase land. However, there are many other issues relating to land in Pakistan that affect the work of UN-Habitat in upgrading human settlements. The land tenure system affected much

of the process linked to the flood response, and prevented consideration of broader solutions of resettlement.

With funding from the Pakistan Settlements Flood Recovery Project, UN-Habitat commissioned a technical book, *A Guide on Land and Property Rights in Pakistan* to train lawyers, land specialists and international agencies in the legal framework in Pakistan. The Housing, Land, and Property Cluster produced a training guide¹¹² and distributed it to 270 people in the Board of Revenue, international NGOs, and UN agencies to inform them about land issues. It is now being used to train 1000 female lawyers on land rights and also 400 *patwaris* (land registrars) by the end of December 2012.

While it is useful to broaden the range of stakeholders who are informed about land rights and tenure, enforcement of existing laws, especially relating to inheritance, remains an issue. Women's names were included on deeds in UN-Habitat programmes and women were included in the Landless Project for the 2005 Earthquake population. Women community-based organisations were also partners in community infrastructure projects funded by KOICA. Nonetheless, their land rights may be not be upheld in practice.

4.4.3 Land Digitization and Census

UN-Habitat's experience in managing the Earthquake Reconstruction and Rehabilitation Authority database of 600,000 beneficiaries demonstrated its ability to create accessible information management systems. UN-Habitat also established an IT infrastructure and information system with web/online functionalities such as tracking of payment of community agreements and GIS mapping of flood affected areas down to village level for the implementation of the Pakistan Settlements Flood Recovery Project.

The UNFPA asked for assistance in building the capacity of the census office. UN-Habitat set up GIS labs with the government Census Office to conduct surveys of urban census blocks so that the census takers could use blocks as their parcel during the process. UN-Habitat's interest in the project extended to the broader value of the data for other urban applications and land-use planning.¹¹³

¹¹² *Land and Property Rights in Pakistan*.

¹¹³ *The United Nations can use it to monitor Millennium Development Goals*.

With UNFPA funding, UN-Habitat set up five census labs in Islamabad, Karachi, Lahore, Peshawar and Quetta. The government donated the building and UN-Habitat set up the office and has conducted basic and advanced GIS training for census staff. As follow-up, two months ago, UNFPA asked for three more offices to be set up in Muzaffarabad, Gilgit and Multan. In 2013, UN-Habitat will train their office staff in mapping methodology.

As flood-affected areas had concerns about the integrity of their land records, UN-Habitat was able to use Pakistan Settlements Flood Recovery Project funding to set up a GIS data centre in KP. The 2010 flood washed away geographical features in KP, Baluchistan, Punjab and Sindh. Landowners faced problems in relocating their land parcels, thus making land redistribution difficult. Poor people with small landholdings are unable to locate their piece of land, and their livelihoods suffer.

Pakistan's land administration policy and framework follow a system that dates back to its introduction by Indian Emperor Sultan Ala-ud-din Khilji (1296-1316), which was reformed by Mughal Emperor Akbar's (1659) regime. While functional for more than four centuries, the system is based mainly on manual registers and paper maps.

Hand-drawn maps formalized in 1887 in the British colonial era and the Land Records Mutation Register and are the basis of the current system. The *patwari*, as the village registrar, keeps the land records. Although he is the lowest civil service grade, he has a lot of authority and decides ownership. Malpractice and corruption in titling are common, and the old hand-drawn maps no longer capture the current boundaries. Disputes over land rights often occur, and 70 per cent of court cases in Pakistan relate to land disputes. It can be impossible for women to gain access to land records.

UN-Habitat's pilot project in the Charsadda district of KP for the digitization of land records aims to establish a mechanism for keeping electronic copies of land records intact and readily accessible, and to facilitate tax, revenue and land-use mapping. Once complete, it will also provide critical information for recovery and post-disaster planning, such as locations for relief camps and safe evacuation centres.

UN-Habitat designed the software to meet the needs of the project and began with the records of two flood-affected districts. UN-Habitat IT staff then used the information gathered to begin digitizing the land records and training government staff in MIS, GIS, and scanning so that they could manage the process.

Land documents are the property of the government Board of Revenue. The Project scans them and returns the original to the government. There is less risk of records going missing now than before, since there are two records of most land parcels, in both the land record and the mutation record.

The database is in the Urdu language. The staff print and compare the data entered in the computer to assure the scanned system matches the original records. A Government Revenue Officer is present to resolve discrepancies. Staff use coordinates to triangulate village locations for geo-referencing, digitizing and numbering village maps. Since the British maps were drawn, rivers have changed course and some land parcels are no longer accessible.

As the Supreme Court had instructed the previous government of Pakistan to digitize the land records, the Revenue Offices asked UN-Habitat to make a presentation to the Supreme Court about its work. The Digitization of Land Records Revenue system covers the determination of approved uses of land, adjudication of rights and registration via titling, recording of land transactions, and the estimation of value and taxes based on land and property. The system should improve transparency and accountability. Once complete, the system can facilitate access to land titles and provide a greater sense of security of land ownership for the administration of taxes and revenues.

As agreed with the local government, the success of Charsadda and Nowshera experience in the Digitization of Land Records Revenue is due to be replicated in seven other districts in Khyber Pakhtunkhwa.

However, the introduction of the Land Management System and Digitization of Land Records Revenue technology, does not address the concern voiced by some that the system might still be manipulated by influential people to protect their interests. Sustainability depends on trained government personnel remaining to maintain its integrity. The

high-tech software requires Government funding commitments for maintenance and regular upgrading.

4.4.4 Sustainable Urbanization

Sustainable urbanization is UN-Habitat's framework for managing urban growth. As part of UN-Habitat's environment agenda, it is looking for effective ways to segregate, collect and recycle household garbage that encourage private entrepreneurship in urban waste recycling. Under the One UN Joint Programme on the Environment, the intended outputs were to establish a baseline, introduced participatory planning and management, and launched demonstration projects.

Solid Waste

In 2012 UN-Habitat launched a research project in five cities to determine the average amount of household waste generated in order to design a revenue model for solid waste management in partnership with ESCAP.¹¹⁴ The ESCAP model involves surveying communities to assess their consumption patterns and the kind of waste they generate. This varies according to the wealth of the area. After calculating the average amount of waste, the project concluded that 500 households needed to be included in order to generate a volume that could yield profitable amounts of recyclable material for sale. Fifteen hundred households are thought to create enough organic waste for composting.

UN-Habitat's partner in the project is the Akhter Hameed Khan Memorial Trust, an NGO based in Rawalpindi that works with a revenue model of waste collection called Environmental Guard (E-guard). UN-Habitat's Neighborhood Waste Collection and Recycling Project (NWCPR) applied this methodology in five cities: Sialkot, Muzaffarabad, Mansehra, Mingora and Gilgit. In addition, a neighborhood in Islamabad, Sector G-15, was included.

Akhter Hameed Khan Memorial Trust provided training and oversight for all the projects. They brought together stakeholders to address and resolve issues and examine partnership options between the public and the municipality. Project Oversight Committees were set up with

representatives from local government and the community to agree roles and responsibilities. A supervisor was needed to oversee the project, which called upon residents to pay a collector PKR100-150 per month to transport the waste six days per week to municipal bins for removal to a dump site.

There is a list of materials, ranked according to their recycled value per kilogram, with metals at the top and plastic bags—the most prevalent item—at the bottom. A certain volume of recycled waste must be collected before it can be sold to a middleman. It is not clear what happens to the unsold materials.¹¹⁵

Gutters and streets are meant to be cleaned by the municipality. No one seems to collect the garbage that accumulates in empty lots, although this could be an alternative model involving household participation in taking waste to an agreed dump site at the corner, with municipal collection from corner sites. That would not require residents to pay, and could gain more compliance.

There was an implicit idea that recycled material could be sold to pay the supervisor, but this did not seem to work for various reasons. Two trial projects in Islamabad and in Rawalpindi visited by the evaluator were not functioning as intended. While the communities were paying for daily waste collection, the G-15 dump site was not contained nor was most of it sorted for recycling. Most notably, no one at either site really wanted to sort through garbage and extract all recyclable items so that the remaining organic material could be composted. At best, people pulled out the most valuable waste, such as large plastic bottles, and left the rest.

In the case studies, the waste collection component of the project would work as intended but, as it involved payment, not all households would be included. There was little evidence of recycling as a profit model or of compost making. The sorting of organic and inorganic matter should probably be done at the household level. In some countries, recyclers go house to house to ask for or purchase the waste materials they find worth collecting.¹¹⁶

¹¹⁵ Some calculations indicate that biogas may be more valuable than compost, according to Mr. Andre Dzikus at UN-Habitat Headquarters.

¹¹⁶ Knowledge of this topic by the specialist at UN-Habitat Headquarters was a rare example of staff being informed of what was occurring in Pakistan. He reported that an Afghan refugee had become quite wealthy collecting animal bones to convert for industrial use.

¹¹⁴ The programme was delayed due to a slow transfer of funds.

Perhaps because the focus is on a revenue model instead of community participation with municipal cooperation, not all options are being tried. The UN-Habitat shelter projects had no solid waste component, although sanitation and hygiene were considerations.

Water

In November 2011, UN-Habitat in partnership with WWF launched a two-year Water and Environmental Sanitation Improvement project in selected coastal communities in Karachi. The objective was to reduce water-borne diseases through a sustainable supply of clean drinking water, and to improve the sanitation and waste management system. The project is 60 per cent complete, with target delivery limited to infrastructure construction and environmental education.

The project is a good pioneering effort at a nascent stage. Project implementation faced challenges that should inform future planning in Phase II. The project area is a poor coastal village where fishing is a major source of income. The men are too busy working to participate in project activities, despite being key decision-makers. Women were not prepared to take major decisions. For future project formulation, an integrated natural resource management approach that combines provision of basic services such as water, community organization building, and management of coastal resources, could be introduced.¹¹⁷

Issues of urbanization lie at the core of UN-Habitat's mandate. A new proposal for Resilient Cities will address issues of capacity in urban governance and infrastructure to deal with disaster risk reduction and sustainable urbanization. Through the One UN platform, UN-Habitat can engage other UN agencies to advance a more comprehensive and integrated approach to urban development that brings land use, service delivery and technical assistance into a joint partnership with government.¹¹⁸ The Punjab provincial government and the city of Lahore are ready to host such partnerships.

¹¹⁷ *The Coke Foundation has given funds for water and environmental sanitation improvement in Karachi coastal communities (2012) and for WASH for community and schools (2013).*

¹¹⁸ *Other UN agencies such as UNDP and UNICEF have similar agendas to promote land use planning and urban policy, and provision of basic services such as health, hygiene and water. See One UN section, below.*

4.5 ONE UN

One UN is a joint programme for UN agencies backed by a multi-donor trust fund, which is currently piloted in eight countries, including Pakistan. It aims to assist with coordinated programming and consolidated reporting for improved cooperation and efficiency, especially in the field of humanitarian aid, development and the environment. Following the UN Secretary-General's High Level Panel, it recommends One Leader, One Programme, One Budgetary Framework, One Communication Strategy and One Office.

The first phase of One UN in Pakistan, which ran from 2009-2012, focused on five Joint Programme development sectors: Agriculture, Rural Development and Poverty Reduction, Disaster Risk Management, Environment, Education, and Health and Population. UN-Habitat identified outcomes in four sectors related to settlement issues. Under Environment it worked on policy, sustainable urbanization (as co-convenor), water and sanitation, and green technology (such as recycling and energy efficiency).

Under Disaster Risk Management, UN-Habitat was involved in projects dealing with policy and coordination, capacity building of government partners, disaster risk management in the education sector, and applied risk management in reconstruction. Under Health and Population it worked with UNFPA and UNICEF and in Education with UNESCO.

The UN-Habitat Country Office received almost USD3.6 million for projects in three Joint Programme areas of Delivering as One.¹¹⁹ Under Health and Population, it worked on GIS capacity building for the census with UNFPA. In Disaster Risk Management and Education (Refugee-Affected and Hosting Areas Programme with UNESCO), it improved 29 school buildings in KP and had a project on hand-washing in schools. Under Environment, it dealt with WASH and Sustainable Urbanization.¹²⁰ UNESCO and UN-Habitat worked together on university and vocational training curricula to set standards on training masons for seismic-resistant construction.

¹¹⁹ *Constituting four per cent of the Country Office activities, according to Review of UN-Habitat's Participation in the Delivering as One UN Initiative, page 60.*

¹²⁰ *Refugee-Affected (RA) part is handled by UNDP and the Hosting Areas (HA) are handled by UNHCR.*

The evaluation reviewed the programme on Sustainable Urbanization and Sustainable Energy Construction, which received about USD819,000, and included activities that had an ongoing field presence. The solid waste project focused on waste disposal, collection and recycling and supported local NGOs in five cities to launch a cooperative community-run and funded waste collection process. This area of programming mostly falls under Sustainable Urbanization but also involves sanitation issues of interest to Basic Services.

UN-Habitat's support for solid waste collection is in the early stages. It is supporting a local NGO in Rawalpindi to train other groups from around the country.¹²¹ The project in Islamabad involved a neighborhood garbage collection scheme where residents in a neighborhood pay for a daily collection service that gives households 30 pink bags per month and hires workers to pick up the garbage at the kerb every day and load it into a truck. It is then dumped at a site nearby, where it should be sorted for recycling and the organic matter put aside for composting.

The garbage is collected, but then dumped, with only a young boy waiting to collect the most valuable recyclable material—large plastic bottles. Other materials are left to blow around, including the pink (and other coloured) plastic bags.¹²² Nearby, the same community is experimenting with a waste water scheme that will filter out waste into reservoir tanks.

In addition, UN-Habitat worked with the Ministry of Environment, ENERCON and the Capital Development Authority Islamabad under the UN Joint Programme for the Environment. A programme to test energy-efficient roofing was carried out on single-story government houses in an area of Islamabad with the assistance of the Capital Development Authority.¹²³ The aim was to see if they could help to keep homes cooler in summer. Of the 19 houses involved in the project, nine reported they had lowered the interior temperature of their houses by four degrees, to below 34°C.

The UN-Habitat evaluation of the agency's participation in the Delivering as One Initiative criticized UN-Habitat for its lack of participation in the programme at Headquarters' level. It also

pointed out the weaknesses and inscrutability of the UNON system, and recommended a revision in the project cycle to simplify procedures relating to recruitment, procurement, monitoring and reporting. More rational roles and accountability could be developed by decentralizing power to the Regional Offices which provide technical and operational support to the Country Offices.

None of the staff interviewed at headquarters mentioned that these recommendations were part of the new reform and Strategic Plan 2014-2019. However, the Review mentioned that Headquarters operates a global fund with activities in Pakistan on water and sanitation, land and youth, some of which are contracted to NGOs.¹²⁴ Inexplicably, they are not coordinated through the Country Office.

The Pakistan United Nations Country Team just finalized its plan for the second phase of One UN, OP2. There is no longer the option of agencies keeping 20 per cent of their programming outside the framework. More critically, United Nations agencies need to negotiate their programmes with the provincial governments where they will be working. The six new Strategic Programme Areas include access to equitable services, inclusive economic growth, national resilience to disasters and emergencies, government and social cohesion, gender justice and food and nutrition security.

UN-Habitat, as a Co-Convener of the Disaster Risk Management programme area will be well positioned to assist the Government in building resilience.¹²⁵ UN-Habitat with National Disaster Management Authority launched a donor dinner for a Resilient Cities project based on a needs survey with the United Nations Office for Disaster Risk Reduction. It will also continue work with Refugee-Affected and Hosting Areas Programme, and with UNFPA on the census amongst the other strategic programme areas.

4.6 CROSS-CUTTING ISSUES

In the disaster and conflict response efforts no special note was made of considerations based on youth, gender or human rights. However, many of those classed as vulnerable in the selection process were single women heading households or widows. In the earthquake of 2005, some beneficiaries were orphans.

121 *The Dr. Akhtar Hameed Khan Memorial Trust.*

122 *The woman in charge, who was trained on the method by an NGO paid for by UN-Habitat, takes half of the money the boy makes, but did not hire sorters to assure recycling.*

123 *Street 31 of Sector G-6/1*

124 *Review of UN-Habitat's Participation in the Delivering as One UN Initiative, page 60*

125 *Under Strategic Programme 3 for disaster risk management*

A Gender Audit mission to Pakistan from 29 June - 5 July 2012 sought to validate the gender-responsive initiatives on nine projects, four of which were part of Pakistan Settlements Flood Recovery Project. Women participated in the design of shelter and the water, sanitation and hygiene projects. In community infrastructure projects, the salvaged materials, plastered their houses with mud, and monitored progress. There were three Citizens' Community Boards composed of women, although details about them were not included. The Gender Auditor complained about the fact that shelters constructed only had one room, allowing no privacy for women.

The Audit ranked the UN-Habitat involvement of women with markers 3 and 2, without indicating their significance.¹²⁶ However, the evaluation team noted a number of women in the Islamabad office, working in IT as managers, architects, engineers, planners, mobilizers, and as the head of communications.

The water and sanitation projects carried out in conjunction with local NGOs such as a Sungi-led consortium in Azad Jammu Kashmir and Plan in Islamabad, focused on gender mainstreaming and women were part of some of the community infrastructure projects in simple construction and in project monitoring.

Women were also given information on land and property rights, although having rights under the law does not assure they will be enforced, especially in matters of inheritance. In this regard, the land rights programme has concentrated on educating women lawyers who should have more access to women to inform them how to claim their rights.

Many of the development programmes dealing with sanitation and hygiene were targeted at school children, such as the programme with UNESCO for hand-washing in the schools. New Environmental Clubs in 28 schools in Islamabad, Lahore, Quetta and Karachi have provided training to make school children aware of how to manage waste and promote hygiene at home and other environmental concerns.

Most of the interventions of UN-Habitat in disaster and conflict response had huge environmental consequences concerning land and water use and sustainable settlements. Indeed, concerns about climate change and the regularity of severe monsoons suggests that disaster risk reduction methods will become a more dominant aspect of the agenda at the Ministry of Climate Change.

¹²⁶ See Documents, Gender Audit PowerPoint presentation. Headquarters did not release the final audit report, saying it had no specific information on Pakistan.

5. MANAGEMENT ISSUES

There are several levels of management issues that relate to the programme assessment provided in this evaluation. First is the management structure of UN-Habitat and the relationship between the Country Office, the Regional Office and Headquarters, and how they all work together to assure effective implementation. During this evaluation, the Pakistan Country Office was under the leadership of a dynamic Country Programme Manager, who had instituted better management and procurement controls. However, many contracts were ending in 2012, and it was not certain what level of staffing and functionality would exist in the Pakistan Country Office in 2013. The UN Resident Coordinator asked that UN-Habitat send a senior UN-Habitat Country Programme Manager so that UN-Habitat could maintain its high profile and influence.

There are also project management issues within the various programmes of the Country Office. Some of these stem from structural issues and some are linked to process, from operational problems linked to planning, coordination, communication, and oversight or the lack thereof. However, any analysis must take into consideration the schedule and the scale of response. At the peak of post-flood recovery, UN-Habitat had nearly 700 local and international staff at its offices in Islamabad, Lahore, Karachi, Quetta, and Mardan, and another 12 field offices in Sindh, Baluchistan, Punjab and Khyber Pakhtunkhwa.¹²⁷

5.1 STRUCTURE

Implementation of most of the UN-Habitat programmes covered in this report was governed by a hierarchy of leadership at national (Islamabad Head Office), provincial and area levels under the management and oversight of a Country Programme Manager and supported by a team of 234 national and international personnel.¹²⁸ The National team is organized into three main branches that provide leadership to the Country

Programme: Operations, managed by Operations Manager; Programme, managed by a Chief Technical Advisor, and Information Technology (IT/GIS/database) headed by a Manager.

Five Programme Units are headed by senior UN-Habitat managers with highly specialized responsibilities in the field of Community Infrastructure, Basic Services, Housing and Land, Sustainable Urbanization and technical support for Disaster Risk Management. The Programme Managers review and endorse community proposals to the UN-Habitat Country Programme Manager for final approval. The provincial structure echoes that of the national level, supported by a team of nationals and internationals under the Provincial Manager who approves and endorses proposals to the UN-Habitat Country Programme Office.¹²⁹ At the Area level, a Field Coordinator manages a group of districts, where a community outreach team of sub-engineers, male and female social mobilizers and monitoring teams are assigned.

Field offices are set up according to the needs of project implementation with an advance team of social mobilizers and engineers sent out to conduct household surveys to gain information about the communities who will be UN-Habitat partners. There are some weaknesses in this process. Changing habits in water and sanitation or in solid waste disposal takes time and this is often not reflected in the strategy of using social mobilizers.

Early survey information is not maintained in a file on beneficiaries, and while the original type of house and building material was listed on survey forms, the type of material used in the shelter constructed was not included and that data is lacking. The database for the earthquake included a file for each beneficiary, along with a photo of them in front of their house. While the IT Unit gathers information into databases, there is no Monitoring and Evaluation Unit to assess progress, identify problems and offer correction. Self-reporting by programmes can provide unreliable data and does not reveal many types of problems, dishonest staff or capacity issues.

¹²⁷ However, the Country Programme Manager and some other key staff were due to leave at the end of 2012 as projects ended and the Country Office reduced operations.

¹²⁸ At the time of this evaluation, the programmes were finishing, field offices closing, and most staff contracts not being renewed.

¹²⁹ Four Provincial Management Offices were established in Baluchistan, Sindh, Punjab and Khyber Pakhtunkhwa.

It is a challenge for any organization to set up operations quickly to a large scale. However, without the proper processes to assure all new staff were vetted and correct monitoring and oversight procedures were in place, UN-Habitat suffered problems in administration and quality control that could have been mitigated.

One implementation issue that caused many delays stemmed from setting up financial processes in remote areas where communities did not have bank accounts. Another resulted from unscrupulous staff who took advantage of communities or who did not follow the procurement rules. Given the frequency of localized emergency needs, the Country Office needs a better system to set up emergency operations.

The programme structure and management provide a clear division of responsibilities and allow for the establishment of accountability for results across levels of implementation. However, there were significant delays in the approval of community proposals with each level in the process with no time limit for review and feedback. Inadequate communication meant that Area Offices did not know when funds had been transferred or how long approval of a proposal would take.

This hindered efficient planning. As a result, proposals were approved and checks were released from the UN-Habitat Country Office in periods ranging from one month to four months.

Delays in the approval of community proposals and in releasing funds affected the implementation schedule. Financial restrictions by UN-Habitat required that some projects had to be artificially divided into smaller units in order to come under the funding approval limits of the Country Office. Any proposal larger than PKR85 million had to be sent to the Regional Office for Asia and the Pacific for approval, which delayed implementation.

Field and project staff reported that the hierarchical decision-making structure supported output delivery but did not encourage an opportunity for sharing of experiences and cross-fertilization of learning within the organization. Implementation was often mechanistic, albeit based on *ad hoc* terms. Centralized authority without much delegation to the field offered little opportunity for staff to develop creativity and build their own capacity.

Recruitment and mobilization of more than 700 personnel across the country within a short period is a tremendous responsibility. UN-Habitat faced a dilemma whether to recruit personnel from the local area with low capacities or from other locations that local communities might not trust. Hiring and assigning staff was not necessarily through a transparent system of performance evaluation. A team of roving monitors could provide support and build the capacity of field staff, and improve programme performance.

Regional Office for Asia and the Pacific and Headquarters

The Regional Office has offered support to the UN-Habitat Country Office in terms of resource mobilization and technical support. It also conducts monitoring visits, but how these might relate to programme management at the Country Office is not clear. The choice of a new UN-Habitat Country Programme Manager should be taken in consultation with the Regional Office, as well as the decision on the retention of other staff.

The UN-Habitat Country Programme Manager commented on the lack of support from headquarters, including no visits from top management. Country Offices have ways to circumvent some of the weighty bureaucracy in Headquarters and it is hard to consider them as part of the same organization. Because Country Offices raise the large bulk of funds, they can hire their own technical expertise and do not need input from Headquarters, which is often theoretical and general and would have to be tailored to the needs of the country setting.

This evaluation indicates there is disagreement between the Regional Office for Asia and the Pacific and the UN-Habitat Country Office about UN-Habitat's aims and work¹³⁰ This included questions such as whether the shelters built should have been temporary or durable, what were the most successful projects and so on. The comments on the draft evaluation report offered by each office were repeatedly at odds.¹³¹

¹³⁰ And headquarters has different views as well.

¹³¹ There appeared to be a long-standing dispute between the Director of the Country Office at the time of the evaluation and the previous Management (in both the Country and Regional Offices), resulting in conflicting versions of events, varying tallies of trainings and inspections of the earthquake project, charges of mismanagement and so on, which the Evaluators could not reconcile.

These divisions between the varying offices, each functioning a bit as its own enclave, pose the greatest risk to the coherence and leadership of UN-Habitat's work in Pakistan.

5.2 PROCESS

Information drawn from project reports and log frames indicates that most of the reports tend to be qualitative and do not fully account for the stated targets indicated in the project document. The evaluation team struggled to understand the performance of programmes and projects at results and outcome levels due in part to the lack of baseline and end-line data. Much reporting, therefore, focused on activities, which were plentiful.

The 2012 Completion Report of KOICA-funded *Facilitating Return of IDPs in Khyber Pakhtunkhwa and FATA* project does not fully account for the targets of the Project Document as indicated in the log frame. It is just one of the cases of inadequate project data collection. There was a tendency to refer the evaluation team to a Provincial Disaster Management Authority website or the cluster files that may not exist or are too time-consuming to locate.

The field level is fraught with the logistics of project delivery for targets set by the Country Office and unmindful of the larger picture of what is being achieved and where UN-Habitat expertise lies. One question often asked of the implementing teams was, "after delivering the project inputs, how much has the gap with needs been reduced?" None of the staff was able to provide a clear answer.

The passage of 18th Amendment has decentralized disaster response and development efforts, conditions, and competencies varied widely between provinces. District leadership can change every six months. The lack of capacity among community-based organisations has already been mentioned but there were also problems with some UN-Habitat field staff, who could not explain the social mobilization process or methods of dealing with disputes. Therefore, the Community Agreement process described in 18 steps may be an optimal guide rather than reflective of real practice in the field, working under a deadline.

There were two types of problems faced by the programmes: technical design flaws and process issues relating to the community-based organisations. Technical oversight by UN-Habitat was inadequate, with monitors unable to keep up with the load of inspections and assure construction support was offered to remedy mistakes. Whatever mistakes were made, they could have been corrected in the process.

Training of citizens' community boards and community-based organisations was brief and without adequate oversight throughout the construction process.¹³² It is not clear how this problem varied between regions and to what degree it reflected capacity issues affecting UN-Habitat. A field monitoring officer should have been assigned, especially in difficult areas where the local community organisations were known to have low capacity. Too much money was released to the villagers without an accountability mechanism to follow it. To its credit, the UN-Habitat Country Office set up a hotline and private email address for beneficiaries to register complaints and report fraud.

For an agency specializing in housing and human settlements, not enough was done to test materials and models to confirm best practice under various conditions, such as standing flood water and torrential rain.¹³³ UN-Habitat co-chaired the Working Group on Housing and supposedly vetted housing projects. Engineers checked the design and then the finance department checked the unit cost. The Housing Working Group offered comments, but it is not clear if problems in construction were noted and reported or only discovered in cases where the shelter collapsed under the next floods. UN-Habitat trained communities in some construction methods, but did not necessarily provide follow-up visits. For instance, they trained communities to use rice straw in mud, as mortar material. Without the right mix, the walls ended up bulging outside.

¹³² Training was in management and procurement, construction techniques and monitoring.

¹³³ DFID is interested in testing shelter models in a recess that is then filled with standing water for months.

6. ASSESSMENT OF RELEVANCE, EFFICIENCY, EFFECTIVENESS, IMPACT AND SUSTAINABILITY

There are many observations throughout the report but the substantial ones related to the assessment of the evaluation criteria are listed below, and only mentioned for the programme areas where they are pertinent.

6.1 RELEVANCE

1. The programme intervention areas of UN-Habitat in Pakistan are relevant to its mandate and its professional ability. However, UN-Habitat is at the bounds of its expertise when it engages in programmes such as hand washing in schools, which is often considered the domain of UNICEF and UNESCO.
2. UN-Habitat's work with UNHCR providing transitional shelters under CERF was excellent and any contractor or NGO implementing partner might not have done as well (although they would have been less costly). However, the question was raised by some other UN agencies about the role of UN-Habitat when it is used as a sub-contractor by UNDP and UNCHR.
3. Nothing defines relevance more than working according to a participatory process guided by community goals. If a community says it cannot pay a community share, or prefers a hand pump to a latrine, UN-Habitat needs to work with them to assure resources are not wasted.
4. Of the 50 agencies involved in rebuilding shelters, UN-Habitat and International Organization for Migration were at the top of the Housing Sector Working Group list for the quantity and quality of their shelter assistance. Some agencies missed their targets or built none at all. Therefore, the idea that anyone can do it, does not mean that just anyone should, or could do it well. However, at UN-Habitat Headquarters there was a lack of appreciation for UN-Habitat's disaster response work, and the comment was made that 'any' NGO could do that work.

5. In Pakistan, however, UN-Habitat's budget was mostly for recovery from disasters, not for its development agenda. So the perception at headquarters of what UN-Habitat does or should do needs to include what it can do, according to the country's needs.

6.2 EFFECTIVENESS

1. UN-Habitat played a critical role in assisting the government in earthquake relief and was recognized as a leader in the field. However, its flood relief programme was marred by inconsistent quality assurance in the construction of shelters and latrines.
2. The disaster risk reduction strategic aim is mitigation. If the aim in flood recovery is to build the largest number of shelters in the shortest period of time, then the costs of disaster risk reduction measures are not likely to be approved.
3. There are questions as to whether UN-Habitat chose the best implementation modality for the context found in Sindh and Baluchistan. Although many shelters were built, not all households that needed assistance received it, then there is collective responsibility that the funds should have been better allocated.
4. There also was a problem with including more latrines than a community needed, resulting in them being used for storage. This indicates a problem in the identification process, when shared communal usage should have indicated not so many latrines were needed.
5. There is some evidence that between the floods of 2010 and those of 2012, beneficiaries whose homes were damaged again already had come to understand that certain building methods made more secure shelters. Therefore, disaster risk reduction construction methods should have been taught by UN-Habitat staff, much the way trainers taught the communities after the earthquake.

6. Attention was focused on the rate of construction and achieving completion targets, at the cost of insufficient emphasis on disaster risk reduction of shelters and infrastructure.
7. There was not enough consensus amongst UN-Habitat engineers as to preferable housing materials and methods or enough oversight to assure the best methods were used. UN-Habitat did not formally inspect all the shelters and offer remedies after the floods.
8. Many homeowners' first concern was cost, and the community share was too high for them to pay.
9. IDPs affected by conflict and their host communities benefited from infrastructure projects. Reconstruction of the IDP infrastructure to enable them to return was most useful.
10. The Regional Office for Asia and the Pacific provided technical assistance to the Country Office for the earthquake programme, but less for the flood recovery efforts. Its monitoring of flood relief was limited to resolve problems as they surfaced.

6.3 EFFICIENCY

1. An audit would be able to assess transaction costs. If the transaction cost was higher than around ten per cent, then funds were wasted, or not used as efficiently as possible. This is a critical point for the United Nations to consider in the design of programmes to assure transferring the maximum funding into the hands of beneficiaries.
2. A full audit was conducted at the time of the evaluation and should include more evidence as to the effective use of funds.
3. Community contracting may appear to be the most cost-effective implementation modality, as agreements with community-based organisations and Citizens' Community Boards agreements charge one per cent in operating costs. However, this does not account for the cost of extensive oversight, administrative support, and training provided by the Project, which could equal or exceed the cost of the other implementation modalities. Moreover,

there was considerable risk attached to those cases that required setting up a new group and expecting it to manage expenses, procure supplies and oversee quality construction.

Direct implementation appears to be a more efficient approach for short-term implementation, such as emergency and recovery projects.¹³⁴ The CERF project charged 6.5 per cent for personnel, monitoring and evaluation, and indirect costs.

NGO contracting is a relatively new experience for UN-Habitat, and selection, monitoring, and standard control mechanisms are not fully in place. Operating and programme costs vary by contract: YAP 22:78 operations, programme respectively; WWF 28:72; and IUCN still undetermined. YAP operational costs appear to be high compared with other NGOs with partnership agreements with other UN agencies.¹³⁵ Operating costs for the other contracts appears to be acceptable given the specialized nature of skills required.¹³⁶

4. The efficient functioning of the UN-Habitat Pakistan Country Office suggests that the weighty bureaucracy of UNON can be escaped with operations transferred to the field offices. This suggests that UN-Habitat Headquarters could be more effective and efficient if most operations were transferred elsewhere and headquarters were scaled back to an administrative center. Branches of UN-Habitat could be more effective if moved to other Regional Offices—such as disaster risk reduction to Bangkok—and more accessible for resource mobilization.
5. More efficient monitoring of the UN-Habitat Pakistan Country Office (and others in South Asia) could be achieved with a regional office in Bangkok, a hub for donors and development agencies.

¹³⁴ *The emergency phase is meant to last three months. Recovery can last up to one year. However, these terms are highly variable.*

¹³⁵ *UNDP pays 12 per cent of operating cost for NGO contracts implementing early recovery in Sindh including Jacobabad.*

¹³⁶ *Evaluation Team (Jess) input.*

6.4 IMPACT

1. The earthquake response was recognized as successful and residents are still interested in seismic-resistant housing construction if they can afford it.
2. Disaster response projects offered visible improvements in housing and generally met their objective. Providing a house or road or solar power confers concrete results that beneficiaries appreciate.
3. Most of UN-Habitat's development programmes introduce incremental change, based on adaptations in behaviour and attitudes. Programmes that rely on changes in behavior or government policy or cultural norms have less visible impact, because change is slow and erratic.
4. Assessment of impact of training and capacity building was a challenge. To assess the impact made through training programmes requires that they are examined for effectiveness, with ongoing capacity building needed to keep community-based organisations and Citizens' Community Boards functional for future relief and development work.

6.5 SUSTAINABILITY

1. Since the flood response programme was implemented mostly in low-lying flood prone areas that are vulnerable to season flooding, the shelters, pumps and latrines face ongoing risk due to seasonal flooding. With each successive flood, disaster risk reduction measures will become more attractive.
2. Land tenure issues limited the options of these householders and this will be an ongoing issue for UN-Habitat in its land use work and in future shelter projects.
3. In terms of the sustainability of projects, UN-Habitat was beginning to track how many houses of specific types were constructed in the flood response and analyze the durability of the various designs in different communities.
4. The Community Infrastructure projects, both for conflict IDPs and those that were included in flood relief, have maintenance needs.
5. The Solid Waste projects are tenuous and UN-Habitat could experiment with varied partnerships with municipalities and public participation, not just the revenue model.
6. Land Digitization will need ongoing technical and financial inputs to maintain the system. It is one project area in the Pakistan portfolio that has ongoing funding from the Government.

7. CONCLUSION

The UN-Habitat Pakistan office has compiled an enviable record of achievement in a broad range of programmes, with support from the Regional Office. Although the Pakistan Country Office has a mixed portfolio, addressing emergency and recovery needs and integrating the development agenda of sustainable urbanization, it receives little support from Headquarters for its experience in dealing with the real needs, issues and functions in the field.

The scale of UN-Habitat interventions varied according to the context. In the earthquake of 2005, it provided training and oversight in a centralized government-led programme that enabled homeowners to rebuild their houses. In the floods of 2010-2011, UN-Habitat oversaw construction of 37,000 shelters in a decentralized recovery process that varied widely between provinces.

It focused less on training and oversight and more on logistical management of the construction of shelters and infrastructure. However, inadequate assessment of the resources of the community and insufficient training and oversight meant that some shelters were unfinished or had flaws in construction. In development, UN-Habitat's projects are well-anchored with local governments and UN partner agencies, for maximum effect.

UN-Habitat has accumulated skills and experiences that are likely to be in demand far into the future, as Pakistan's ongoing concerns with natural disasters, conflict response related to IDPs, and issues related to sustainable urbanization continue. The more UN-Habitat can become known for its technical expertise, especially in training and quality assurance of shelters and infrastructure, the more it will assure a place for itself as a leader in disaster response.

Donors appreciate UN-Habitat as a reliable partner with highly skilled and experienced staff, and they will continue to work with the Pakistan Country Office in refining disaster response approaches and identifying mitigation strategies. A new programme for making sustainable disaster resilient and healthy cities and townships in disaster prone regions of Pakistan already promises to use capacity building of provincial institutions in support of disaster management and sustainable urbanization.

UN-Habitat in Pakistan has coordinated its activities well with other UN agencies in professional partnerships, demonstrating the value of One UN in settings where each brings a particular area of expertise. It also has gained the respect of donors and of Pakistan government interlocutors as an agency that is responsive to public need and adaptable to meeting new challenges. It is a Country Office that can make UN-Habitat proud of its achievements.

8. LESSONS LEARNED

These observations¹³⁷ are meant to have broader application within UN-Habitat, but it seems the Regional Offices will need to assure that innovations are introduced into country programmes.

1. Country Offices are where UN-Habitat proves its technical expertise and its utility, and makes a name for the agency amongst peers and donors—as long as it stays focused and does not drift into sectors of other agencies.
2. UN-Habitat needs to rethink the projects it considers 'early recovery' as they take almost two years and involve shelters of varying quality along with development projects such as infrastructure. All work should be durable, quality constructed, because UN-Habitat's reputation depends on it.
3. Slogans such as 'build back better' should be examined. Issues include considering that if disaster risk reduction measures are costly and not recommended so that more people can be helped, what resilience is being added, in real terms? Hard decisions need to be made about which is the better option—more shelters or more disaster risk reduction measures for better quality.
4. Once UN-Habitat experiments with models of low-cost housing and various disaster risk reduction methods for foundations and roofing, it can offer more capacity building and mobilization of communities to replicate disaster resilient construction practices.
5. When designing disaster response programmes, UN-Habitat should advocate for better settlement planning not just solutions at the household level.
6. Strong Monitoring and Evaluation Units in the Country Offices backed up by the Regional Office can help to identify training needs and address project weaknesses at a stage when problems can be remedied.

137 The Evaluation Team perceives lessons learned as a rather worn concept; evaluators make observations in the course of their research but the people responsible for the projects and administration often lack the systems and structures to correct weaknesses.

9. RECOMMENDATIONS

For the Country Office:

1. Given the level of poverty of many of the affected communities, and the types of disaster risks they face, UN-Habitat needs to find more affordable disaster-resistant construction methods, and map the disaster risk reduction use by district.
2. UN-Habitat needs to examine the net cost and impact of the concept of community share, as it led to inferior construction of shelters and latrines.
3. UN-Habitat should withhold a portion of community infrastructure funds, if possible, until it ascertains that shelters and latrines were well built and do not need remedial funds.
4. UN-Habitat should focus on monitoring the projects for quality issues so that mistakes can be caught early enough to fix them—especially when working with relatively inexperienced local partners.
5. There is a need for ongoing capacity building of the project implementing partners, with more training of construction workers to ensure better quality construction and maintenance.
6. Training and oversight inspections should continue to be the focus of UN-Habitat technical project assistance in disaster response, and should cover both UN-Habitat assisted and self-driven reconstruction work.
7. To reach the maximum number of beneficiaries, UN-Habitat could expand its services to provide technical assistance in shelter and community infrastructure for communities who have their own resources but lack the disaster risk reduction knowledge.
8. More monitoring, evaluation and capacity building expertise is needed in the Country Office, which failed to record and remedy problems in the field in a timely way. Third-Party Monitors, an inspection regime and a remedial fund should be considered to assure quality work.
9. UN-Habitat should involve a community share in infrastructure projects, if such participation contributes to better maintenance.
10. Focus on lessons learned, establishing standards, and on testing materials and construction methods, so that UN-Habitat is fully recognized as a technical expert in shelter reconstruction, basic services, community infrastructure and sustainable urbanization, and the lead partner in disaster response and disaster risk reduction.

For the Regional Office:

1. The Regional Office for Asia and the Pacific needs routine field presence in order to maintain and build the Country Office, which needs a new Country Programme Manager to assure donors of UN-Habitat's intentions.
2. A Regional Office in Thailand can better serve the needs of the Pakistan office (and also Afghanistan, Bangladesh and Myanmar) and prove less costly to run. This would be more accessible to Country Offices in South Asia with the largest programmes and serve resource mobilization and cooperation with other agencies.
3. Regional Offices should be the information link between Country Offices and Headquarters, assuring that the sectoral offices at headquarters are informed about the Country programmes.
4. The Regional Offices must find a way to support Country Offices with expertise, resource mobilization, and a monitoring and evaluation function.

For Headquarters:

1. UN-Habitat Headquarters should be learning from real-world experiments in the Country Offices, acquiring derivative knowledge and evidence—but to do that sectoral specialists would have to be informed about the work in Country Offices and spend much of the year in the field.

2. Decentralization of core units from headquarters to the Regional Offices could facilitate their immersion into real world applications and facilitate resource mobilization. It could also help UN-Habitat escape from the operational restrictions and costly bureaucracy of UNON.
3. The word *normative* should be avoided, as the overuse of this term reaffirms the seemingly academic nature of some of headquarters' work, detached from the reality of the field. Derivative, applied, evidence-based studies should be the focus, and this is provided by the work of the Country Offices.
4. UN-Habitat Headquarters should be filled with staff who have expansive sectoral knowledge and real-world experience, are engaged with Country Offices, informed about their current projects, challenges and context and willing to find solutions for their particular needs.
5. Since the Evaluation Unit has been separated from monitoring and placed in the Office of the Executive Director, the Unit should be staffed with adequate capacity of qualified and experienced professionals. Evaluation must have active links to programming and monitoring units to assure evaluation recommendations are applied for improved data collection, programming and overall programme improvement.
6. UN-Habitat Headquarters should conduct an evaluation of who makes use of their research and assess the value of their own partnerships and results. The field work supported by an impressive array of donors would be missed by millions of beneficiaries because headquarters' focus on resource mobilization is for itself, instead of raising funds to apportion to all of UN-Habitat's work. This raises more questions as to where the real value of UN-Habitat lies.

ANNEXES

ANNEX I: TERMS OF REFERENCE

EVALUATION OF UN-HABITAT'S ROLE IN POST DISASTER RECOVERY, RECONSTRUCTION AND DEVELOPMENT IN PAKISTAN

TERMS OF REFERENCE

1. BACKGROUND AND CONTEXT

The United Nations Human Settlements, UN-Habitat, is the lead United Nations agency for Cities and Human Settlements. The basic framework for UN-Habitat's work is laid down in the Habitat Agenda adopted in 1996 by the Member States of the United Nations. The Habitat Agenda commits Governments to the twin goals of 'adequate shelter for all' and 'sustainable human settlements development'. UN-Habitat's specific mandate to assist member states in disaster prevention, mitigation and preparedness, and post-disaster rehabilitation capacities in human settlements is derived from the Habitat Agenda paragraphs 40(l); 43(z); 170-176; 208(d), (e); and 228(c). A number of other mandatory instruments, further specifies UN-Habitat's role, including:

- General Assembly resolution 59/239 of 22 December 2004, which requests the United Nations Human Settlements Programme, within its mandate, to continue to support the efforts of countries affected by natural disasters and complex emergencies to develop prevention, rehabilitation and reconstruction programmes for the transition from relief to development..';
- Governing Council resolution, HSP/GC/ 20/17 of 8 April 2005 on post-conflict, natural and human-made disaster assessment and reconstruction, which requests UN-Habitat ' to mainstream prospects for risk reduction and limiting the after-effects of disasters [...] develop a strategic policy for the role of the United Nations Human Settlements Programme in addressing the sustainable human settlements aspects of human-made and natural disaster management, which should focus on the Programme's areas of comparative advantage...' and '...to mobilize the necessary

financial resources to implement the strategic policy in order to facilitate disaster prevention and mitigation and post-crisis reconstruction by United Nations Human Settlements Programme in support of human settlements' (A/60/8).

Through participation at the earliest stages, UN-Habitat ensures that human settlements interventions, either immediate emergency or transition recovery, are linked to longer-term development strategies in disaster hit countries. UN-Habitat's value is its expertise on shelter and human settlements within the planning and response system. UN-Habitat works with other organizations at every level, including the Government, communities, local authorities, civil society and the private sector to meet the need for shelter and services, while simultaneously addressing the longer-term development needs for land, secure tenure and infrastructure.

In April 2004, UN-Habitat was invited to participate in the Executive Committee for Humanitarian Affairs (ECHA) to bring its perspectives and support to international interventions within the context of shelter and human settlements. Four years later, in May 2008, UN-Habitat was formally made a member of the International Agency Standing Committee (IASC) as the global focal point for housing, land and property rights.

In response to its growing humanitarian and post-crisis role within the UN and IASC system, UN-Habitat developed a normative framework for measuring the efficacy of its work both on reconstruction of settlements damaged by war or natural disasters; as well as its performance in reducing vulnerability and assisting governments in ensuring more resilient cities. The strategic policy published in 2008 builds on two principles: the potential for development gains is far higher

during the early stages of relief and recovery, and that an integrated and strategic approach to relief and recovery to facilitate these gains is UN-Habitat's niche. The policy aims to both create effective synergies between humanitarian response projects and wider UN-Habitat mandates and to ensure effective knowledge management within UN-Habitat, which are to be achieved through:

- Inter-agency cooperation, partnership and networking, promotion of public-private partnerships, complementing inter-governmental commitments;
- Selection of key partners, and identification of priorities and opportunities for immediate measures linked to longer-term technical and capacity building support to ensure a seamless transition from early crisis response to longer-term recovery and development;
- Engagement with the Central Emergency Response Fund (CERF);
- Collaboration with the UN Country Team on Common Humanitarian Action Plans;
- Consolidated Appeals, and Flash Appeals; and endeavour to link these to UN Development assistance Frameworks; Poverty Reduction Strategies, and other development planning processes at local and national levels;
- Building and maintaining strategic partnerships in particular with local government and local government networks and civil society;
- Use of normative tools in the delivery of operational products, facilitating in-house coordination and generating lessons learned.

UN-Habitat's key priority areas in its humanitarian interventions are land and tenure, transitional and permanent shelter, environmental remediation, rehabilitation of basic infrastructure and services, immediate economic recovery, restoration of livelihoods, as well as participation and capacity building.

The 2008 strategy is aligned with the Medium-Term Strategic Institutional Plan (MTSIP) 2008-2013 Focus Area 2: to reduce the vulnerabilities of human settlements and strengthens their capacities for managing human made and natural disasters at all levels, and Focus Area 3: to respond to immediate needs in the aftermath of crises that are linked

to Agency mandated interventions supporting sustainable human settlements. However, given the wide range of activities in Pakistan, these have also contributed to the other Focus Areas of the MTSIP.

The implementation approach used by UN-Habitat aims to establish positive links between disaster risk reduction, reconstruction, recovery, basic services and sustainable urban development by: Supporting local initiatives; Building local capacities; Focusing on shelter and livelihoods; and Promoting appropriate legal frameworks. Though participation at the earliest stages, UN-Habitat ensures that human settlements interventions, either immediate emergency or transitional recovery, are linked to longer-term development strategies in disaster hit countries.

For many years UN-Habitat has been operating in humanitarian and crisis situations, supporting efforts of national governments, local authorities and civil society to strengthen their capacities to manage and recover from disasters and mitigate future disasters. Evaluations have been sporadic or part of evaluations carried out by donor organizations, for example, the Ausaid organisational review, whose evaluation team visited Sri Lanka in 2011. However, no formal evaluations have been conducted by UN-Habitat to demonstrate UN-Habitat achievement in development, reconstruction and recovery in post-disaster situations. The UN-Habitat evaluation plan 2012-2013 includes evaluation of UN-Habitat Urban Programme in Iraq and evaluation of UN-Habitat's role in post-disaster recovery, reconstruction and development in Pakistan assessing UN-Habitat achievements in humanitarian interventions.

1.1 UN-Habitat involvement in Pakistan since 2005

Pakistan is a country of 173 million inhabitants with serious challenges of urbanization. Thirty-five per cent of the population live in urban areas of which forty per cent live in slums or informal settlements. UN-Habitat's engagement in Pakistan began on a small scale in the 1990's addressing issues of secure tenure and other related problems. The extent of the humanitarian programme is also explained in terms of poverty prevalence in areas such as Baluchistan and rural Sindh as well as conflict and displacement issues in the border areas with Afghanistan since

2002. The humanitarian programmes by and large have targeted smaller human settlements in rural areas.

In October 2005, a devastating earthquake struck parts of northern Pakistan and Azad Kashmir that left more than 3.5 million people without shelter. This was followed by the 2007 floods and the 2010 and 2011 monsoon floods. Over the same period there have been military operations in the border areas and an ensuing Afghan refugee crisis. UN-Habitat has responded to the ensuing demand for humanitarian assistance by providing sustainable relief to affected communities. Since then UN-Habitat has implemented or is implementing 49 projects (Annex II: List of UN-Habitat projects in Pakistan) worth close to USD94 million with 84 per cent of funding from bilateral donors.

UN-Habitat in Pakistan peaked at almost 700 national and international staff in 2011 with offices in Islamabad, Lahore, Karachi, Quetta and Mardan. In addition to these locations, UN-Habitat maintains 12 field offices throughout Khyber Pukhtunkhwah, Baluchistan, Sindh and Punjab.

UN-Habitat Pakistan's key areas of intervention have been in the fields of housing, community infrastructure, basic services, urban development, disaster risk management and Geographic Information Management. The implementation approach used by UN-Habitat in Pakistan has been based on community led development, in which affected populations take charge of their recovery, rehabilitation and development (source: www.unhabitat.org.pk).

Several bilateral donors have funded UN-Habitat projects in Pakistan since 2005, including the Government of Japan. The Government of Japan's response to UN-Habitat's appeal after the 2010 floods resulted in USD 44.6 million for settlements flood recovery. Other notable donors include, DFID, SIDA, CIDA, the Korean International Cooperation Agency (KOICA), USAID, Swiss Agency for Development and Cooperation (SDC), BASF/Germany, the Organisation of Islamic Cooperation (OIC), and the World Bank.

UN-Habitat has also received funds through the Central Emergency Response Fund (UN CERF), other UN Agencies and from the

Pakistan One UN Fund though One UN funding has been increasingly insignificant. The private sector such as Germany/BASF and Coca Cola has provided small contributions too.

There has been some in-country resource mobilization, while global resource mobilization has been limited to small contributions from Coca Cola and related funds through the Water for Asian Cities Programmes and the GWOPS programme.

Key implementation partners include the United Nation Country Team, other UN agencies, such as International Organization for Migration (IOM) (shelter cluster), UNICEF (WASH), UNHCR (protection), International Federation of Red Cross and Red Crescent Societies (IFRC), INGOs. Governmental partners providing oversight and policy include ERRA, the Government of Pakistan, NMDA, local authorities and communities.

The UN-Habitat Pakistan country programme both for its development and humanitarian operations and normative initiatives is led by a Country Programme Manager with delegated authority (for field offices), who is presently assisted by a substantive and operational support team, including a Chief Technical Advisor (CTA) and two certifying officers. The country team reports to the Director of the Regional Office for Asia and the Pacific (ROAP). Substantive oversight is done by a ROAP based Human Settlements Officer (HSO). Normative backstopping is provided by the UN-Habitat Headquarters and the UN-Habitat liaison office in Geneva. The latter also links to the global clusters and to global appeal processes. Overall response policies and resource mobilization is coordinated by ROAP.

2. PURPOSE AND OBJECTIVES OF THE EVALUATION

The evaluation is conducted as part of the efforts of UN-Habitat to ensure that UN-Habitat evaluations provide a full representation of its mandate and activities, including evaluation of humanitarian type and development interventions. Evaluation is integral to UN-Habitat's mandate and activities including programme planning, budgeting and implementation cycle and supports UN-Habitat to manage for results by assessing the extent to which UN-Habitat humanitarian type and development interventions are contributing effectively to more sustainable urbanization.

It also responds to UN-Habitat's strategic policy on human settlements in crisis and sustainable relief and reconstruction framework, which has guided UN-Habitat's work in the humanitarian sector since 2008, which states that 'regular and periodic evaluation' of the policy should be undertaken.

The main purpose of the evaluation is to: (i) provide evidence of results to meet accountability requirements, (ii) evaluate results achieved so far, and (iii) promote learning, feedback, and knowledge sharing through results and lessons learned of operational relevance for future project formulation and implementation.

The evaluation is to provide UN-Habitat, its Governing bodies, donors, UNCT and the government of Pakistan with an independent and forward-looking evaluation of UN-Habitat's achievements, lessons, including best practices, and challenges and opportunities.

2.1 Specific Objectives

Specific objectives of the evaluation include assessing:

- Relevance, efficiency, effectiveness, impact and sustainability—reviewing progress made and results achieved by UN-Habitat in Pakistan since 2005 to date, with reference to relevant strategies, frameworks and programmes. This part of the evaluation also will review managerial processes and assess coherence between the various projects implemented by UN-Habitat in Pakistan.
- Complementarity and comparative advantage of UN-Habitat in Pakistan—gauging the complementarity and added value of UN-Habitat vis-à-vis other multilateral programmes and initiatives, while considering additional opportunities and contribution to IASC coordination mechanisms during humanitarian situations.
- National ownership and coherence—assessing the extent to which programme achievements are likely to be sustained in the long term by national partners, government, local authorities, communities, service providers and others, as well as possible synergies of Pakistan country activities.
- Inclusion of youth, gender equality and human rights (rights holders and duty bearers) in the programming and implementation of the projects in Pakistan.

3. SCOPE AND FOCUS

The evaluation is expected to cover the period since 2005 to date. The evaluation will provide an overall assessment based on the criteria of relevance, efficiency, effectiveness, impact and sustainability. In addition, the evaluation will assess the extent to which cross-cutting issues of youth, gender equality, environmental capacity development and human rights have been aligned, operationalized and promoted during implementation. Three projects will be selected for in-depth assessment. Specifically, the evaluation will assess two projects related to humanitarian work (Rehabilitation of Community Infrastructure and Facilities funded by KOICA) and Pakistan Settlements Flood Recovery Project funded by Japan; and one development programme (projects under the One UN Program).

The evaluation will identify lessons and give recommendations of operational relevance for future programme and project formulation and implementation. It will focus on the role and performance of UN-Habitat's development focused programme and its multiple humanitarian responses over the past seven years by addressing the following sets of key questions, based on the programme's intended results, which may be expanded by the consultants as deemed appropriate:

Relevance

- To what extent is the UN-Habitat's role and projects in Pakistan harmonized and coherent (programme based rather than standalone projects), strategic and based on UN-Habitat's strategy, relevant frameworks and programmes of other aid partners and donors and comparative advantage?
- To what extent are the projects [approach] responding to specific needs, priorities of the people of Pakistan and aligned with national development strategies as well as appropriate to the economic, socio-cultural and political context?

- To what extent are the projects complementary to, and harmonized with, other UN programmes in Pakistan, including IASC guidelines, in order to avoid duplication?

Effectiveness

- To what extent do management capacities and arrangements put in place supports the achievement of results and need for transparency and accountability? What has been the added value in the context of One UN joint programming?
- To what extent are the projects' objectives and results achieved, or are expected to be achieved, taking into account their relative importance?
- To what extent have the projects integrated normative and operational activities and tools in the delivery of results?
- Is the delivery and impact of the projects monitored and reported on effectively? How has relations between donors and UN-Habitat been maintained?

Efficiency

- To which extent have the projects been specialised in terms of geographic and sectoral concentration *vis a vis* cost-effectiveness in the delivery of results?
- To what extent are institutional arrangements for the projects adequate and structured to provide administrative support in a cost-efficient manner?
- Have resources (funds, human resources, time, expertise, etc.) been allocated strategically to achieve results?

Impact

- To what extent has the implementation of the projects had the intended and non-intended impact so far on poverty reduction and on the poorest and improving good governance and planning in the various sectors in which UN-Habitat are involved in Pakistan?
- Where performance is judged to be successful or unsuccessful, what has contributed to this? (Responses to these questions should be categorised by design, management and external factors (particularly context).

- Does the projects target gender equality, youth and human rights issues so as to impact favourably on the lives of women, men, and youth in Pakistan? Identify and assess benefits gained by target groups and beneficiaries possibly exerting widespread impact on a larger number of people in a given community, sector or region.

Sustainability

- What is the likelihood that the results of the projects are durable and can be maintained or even scaled up and replicated by projects partners after major assistance has been completed? How has the projects fared in resource mobilization?
- Are national partners willing and committed to continue with the projects? How effectively has the projects built national ownership? To what extent have local cultural practices and knowledge, including building techniques been incorporated?

4. EVALUATION APPROACH AND METHODOLOGY

The evaluation approach should be as participatory as possible and seek to include voices of beneficiaries. The evaluation will assess performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the programme, including sustainability. Criteria of coherence (of humanitarian policies and human rights with other [sectorial] policies), connectedness (linking short-term emergency activities and longer-term development) and coverage (need to reach major population groups affected by disaster) will also be applied as they are specifically relevant to humanitarian interventions.

The evaluation shall be independent and carried out following the evaluation norms and standards of the UN system. A variety of methodology will be applied to collect information during evaluation including:

- (a) **Review of relevant documents** to be provided by ROAP and the Pakistan Country Office, and documentation available with the partner organisations (such documentation shall be identified and obtained by the

consultants). Documentation to be reviewed will include: (1) Strategies and frameworks; (2) Original project documents and implementation plans; (3) Annual work plans, (4) Monitoring reports; (5) Reviews, (6) Previous evaluation documents; (7) Donor reports and evaluations; (8) Other communication material.

- (b) **Key informant interviews and consultations**, including group discussions, will be conducted with key stakeholders, including donors, the implementing partners and governmental partners. The principles for selection of stakeholders to be interviewed as well as evaluation of their performance shall be clarified in advance (or at the beginning of the evaluation). The informant interviews will be conducted to obtain qualitative information on the evaluation issues to allow the evaluation team address the programme relevance, efficiency and effectiveness of the programme.
- (c) **Surveys** implemented through the application of questionnaires (in person or electronically) of large stakeholder groups. Different questionnaires should be used for different stakeholder groups with attention to format and language of the survey. Groups need to be disaggregated by relevant criteria: disadvantaged and advantaged groups depending on their gender or status, duty bearers and rights holders.
- (d) **Field visits** to assess a selected sample of Pakistan projects. The evaluation team will carry out a two week mission in Pakistan to assess the selected projects, and document relevant observations from the visits and interviews.

The evaluators will describe expected data analysis and instruments to be used in the evaluation work plan. Presentation of the evaluation findings should follow the standard format of UN-Habitat Evaluation reports.

5. STAKEHOLDER PARTICIPATION

It is difficult to evaluate the UN-Habitat's work in Pakistan as series of isolated interventions. The programme is just one of many inputs to the Pakistan development programme and partners'

activities who all combine to produce the results on the ground. It is expected that this evaluation will be participatory, providing for active and meaningful key stakeholders' involvement. UN organizations, beneficiaries of the projects, donors, and representatives of other civil society organizations may participate through a questionnaire, interviews or group discussions.

6. EVALUATION TEAM

The evaluation shall be carried out by an independent evaluation team consisting of two international consultants and two national consultants with the following criteria:

- (a) Extensive evaluation experience of humanitarian and development strategies and programme, especially participation and capacity building. The international consultants should have proven ability to present credible findings derived from evidence and putting conclusions and recommendations supported by the findings. Experience of working in post-disaster environment is also required.
- (b) Knowledge and understanding of UN-Habitat's role in humanitarian interventions.
- (c) Specialized knowledge of projects or programmes in the field of the recovery and reconstruction, urban development local governance, housing, or infrastructure. Relevant experience of other major humanitarian and development agencies or programmes (such as IFRC, UNHRC, International Organization for Migration, World Bank, ADB, INGO), in particular in relation to programmes on housing, land and property issues and basic services is an asset.
- (d) Advanced academic degree in relief and reconstruction, humanitarian strategies, urban development, housing, infrastructure, local governance, or similar relevant fields. For national consultants a degree in social sciences or engineering is an asset.
- (e) Recent and relevant experience from working in developing countries. Experience in Asia an asset.

- (f) The national consultants should be Pakistani nationals and able to travel, with excellent English language skills in Urdu. Proficiency in local languages highly desirable.
- (g) It is envisaged that the team members would have a useful mix of experience and academic training from various parts of the world.

7. RESPONSIBILITIES AND EVALUATION MANAGEMENT

The evaluation will be commissioned by UN-Habitat, and managed by the Evaluation Unit. A joint advisory group with members from the Evaluation Unit, the Regional Office for Asia and the Pacific (ROAP), and the Pakistan Country Office will be responsible for comments on work plan and draft reports.

The Evaluation Unit will lead the evaluation by guiding and ensuring the evaluation is contracted to suitable candidates; providing advice on code of conduct of evaluation; providing technical support as required; ensuring that contractual requirements are met; and approving all deliverables (evaluation work plan, draft and final evaluation reports).

The Pakistan Country Office will provide logistical support in close collaboration with ROAP to the Evaluation Team.

The Evaluation Team comprising of two international consultants as the team leaders and two national consultants, are responsible for meeting professional and ethical standards in planning and conducting the evaluation, and producing the expected deliverables.

8. WORK SCHEDULE

The evaluation will be conducted over a period of three months, September-November 2012. The consultants (Evaluation Team) are expected to prepare an inception report containing a detailed work plan that will operationalize the evaluation. In the evaluation work plan, schedules and delivery dates to guide the execution of the evaluation should be detailed. The provisional time table is as follows.

Task	Oct 2012	Nov 2012	Dec 2012
Inception report with work plan	X		
Initial desk review	X		
Mission and field visits	X		
In-depth reviews	X		
Supplemental desk reviews		X	
Additional research		X	
Draft report		X	
Draft review		X	
Draft final review with workshop			X
Final report			X
Report publication			X

9. DELIVERABLES

The three primary deliverables for this evaluation are:

- (a) **Inception report with work plan.** The inception report will explain in detail the use of methods and provide justification for the selection of sample projects for the field visits. Once approved, it will become the key management document for the evaluation, guiding evaluation delivery in accordance with UN-Habitat's expectations throughout the performance of contract.
- (b) **Draft evaluation reports.** Full evaluation (exclusive of Executive Summary and Annexes) prepared in English following the UN-Habitat's standard format for evaluation reports.
- (c) **Final evaluation report** (including Executive Summary and Annexes) prepared in English and following the UN-Habitat's standard format of evaluation report. The report should not exceed 40 pages (excluding appendices). The Executive Summary should also be translated in Urdu. In general, the report should be technically easy to comprehend for non-specialists. The final published report will also contain figures, tables and boxes and be illustrated to some extent.

10. RESOURCES

The consultants will be paid an evaluation fee. DSA will be paid only when travelling on mission outside official duty stations of consultants. The consultants to conduct this evaluation should be of equivalent to P-5 to D-1 for the international consultants and P2 to P4 for the national consultants.

Disclaimer: Final payment of the consultants' fee will be initiated upon approval of the final report by the Evaluation Unit.

ANNEX II: LIST OF UN-HABITAT PROJECTS IN PAKISTAN, 2005-2012

No.	Project No./ Proj ID	Project title	Budget/USD	Donor	Planned Duration	Status
1	XDBAK05D01 D155	Support to Spontaneous Shelter Recovery in Earthquake Affected Villages	185,017	UNDP	Nov 05 – Dec 05	Completed
2	XBPAK06X01 D166	Technical and Training Support for the Earthquake Reconstruction and Rehabilitation Authority (ERRA)	6,165,321	CIDA	Mar 06 – Feb 08	Completed
3	XBPAK06X03 D176	Support to Rural Housing Reconstruction	131,723	USAID	Aug 06 – Apr 07	Completed
4	XBPAK06X04 D179	Training and Technical Support for the Earthquake Resistant Housing Reconstruction	826,568	Swiss Agency for Development and Cooperation (SDC)	Dec 06 – Mar 08	Completed
5	XBPAK06X05 D180	Training and Technical Support for the Earthquake Resistant Housing Reconstruction	7,121,150	SIDA	Jan 07 – Dec 10	Completed
6	XBPAK07X01 D189	Facilitating Access to Land for Earthquake Affected Landless Families	728,775	DFID	Jun 07 – Apr 08	Completed
7	XBPAK07X02 D198	GIS/MIS Support to NDMA for Post Flood Information Management and Coordination	37,339	UNDP, UNICEF, UNFPA	Oct 07 – Dec 08	Completed
8	XBPAK08X02 D212	Emergency Shelter Kit Procurement and Distribution	36,382	UNCERF	Mar 08 – Jun 08	Completed
9	XBPAK08X01 D214	Training and Technical Support for the Earthquake Resistant Housing Reconstruction	1,968,888	DFID via ERRA	Feb 08 – Jun 08	Completed
10	XBPAK08X03 D216	Joint UN Post-Disaster Assessment Mechanism	41,222	UNICEF	Mar 08 – Dec 08	Completed
11	XBPAK08X04 D229	Facilitating Access to Safer Land for Earthquake Affected	2,100,717	DFID	Jul 08 – May 10	Completed
12	XBPAK08X05 D230	Strengthening Post-Earthquake Reconstruction	6,940,539	DFID	Aug 08 – Mar 11	Completed
13	XBPAK08X07 D233	Humanitarian Response Plan in Pakistan	360,000	USAID	Oct 08 – Apr 10	Completed

No.	Project No./ Proj ID	Project title	Budget/USD	Donor	Planned Duration	Status
14	XBPAK08X08 D238	Pakistan Humanitarian Response Programme in Northwest Frontier Province (NWFP)	40,000	DFID via UNICEF	Oct 08 – Dec 08	Completed
15	XBPAK08X09 D240	Shelter Provision for Baluchistan Earthquake Affected Families (Rapid Response CERF Grant 1039)	885,907	UN CERF	Nov 08 – Jan 09	Completed
16	XBPAK08X06 D242	Primary School Reconstruction in Muzaffarabad	207,032	BASF/Germany	Oct 08 – Jun 12	Completed
17	XBPAK09X01 D245	Emergency Transitional Shelter Provision for Baluchistan Earthquake Victims	470,394	DFID via UNICEF	Jan 09 – Dec 10	Completed
18	XBPAK09X02 D255	Emergency Shelter Interventions for Vulnerable IDP Families Living with Host Families in NWFP	494,587	DFID via UNICEF	May 09 – Dec 09	Completed
19	XBPAK09X03 D256	Emergency Shelter for IDPs living with host families in North West Frontier Province (NWFP) (Rapid Response CERF Grant 1197)	494,768	UN CERF	May 09 – Aug 09	Completed
20	XBPAK09X04 D257	WASH Intervention for IDPs in the North West Frontier Province (NWFP) and federally administered tribal areas (FATA) (Rapid Response CERF Grant 1198)	300,798	UN CERF	May 09 – Aug 09	Completed
21	XBPAK10X05 D263	Emergency Shelter Assistance to IDPs Living Outside of Camps	992,092	USAID	Aug 09 – Jan 10	Completed
22	XBPAK09X06 D267	Water and Sanitation Improvements in Informal Settlements through Gender Mainstreaming and Empowerment of Local Authority	1,058,700	Multi-Partner Trust Fund (MDTF) Spain	Oct 09 – Dec 12	Completed
23	XBPAK10X01 D275	Shelter Assistance to Returnees in Conflict-affected Areas in NWFP – pilot project	190,276	UNHCR	Jan 10 – Apr 10	Completed
24	XBPAK09X07 D276	Disaster Risk Mitigation	621,750	MDTF One UN Fund	Feb 10 – Dec 12	On-going
25	XBPAK09X08 D277	One UN Joint Programme on Environment: Sustainable Urbanization and Sustainable Energy Construction	819,140	MDTF One UN Fund	Feb 10 – Dec 12	On-going
26	XBPAK10X02 D279	Documenting and Communicating Results Achieved and Lessons Learnt in the Post 2005 Earthquake Rural Housing Reconstruction Programme	99,550	The World Bank	Jan 10 – Aug 10	Completed
27	XBPAK10X05 D283	Improving Living conditions of IDPs out of camps through WASH Interventions in NWFP	284,464	UN CERF	May 10 – Jul 10	Completed

No.	Project No./ Proj ID	Project title	Budget/USD	Donor	Planned Duration	Status
28	XBPAK10X06 D285	Improving Living Conditions of IPDs off Camps through Emergency Shelter Assistance in NWFP	402,374	UN CERF	May 10 – Jul 10	Completed
29	XBPAK10X03 D288	Shelter Assistance to Returnees in Conflict-affected Areas in NWFP and FATA	1,336,467	UNHCR	Apr 10 – Dec 10	Completed
30	XBPAK10X04 D289	Reconstruction of Girls School in Kanju Union Council, Swat District	150,000	OIC	Jun 10 – Apr 11	Completed
31	FDPK10F01 D299	Emergency Assistance to Pakistan after 2010 Floods	95,000	Foundation	Aug 10 – Dec 11	Completed
32	XBPAK10X08 D301	Shelter Assistance to Flood Affected Population	615,571	UN CERF	Aug 10 – Nov 10	Completed
33	XBPAK10X09 D302	Shelter Assistance to Flood Affected Population (WASH)	247,810	UN CERF	Aug 10 – Nov 10	Completed
34	XBPAK10X11 D304	Shelter Assistance to Flood Affected Population	690,150	UN CERF	Sep 10 – Dec 10	Completed
35	XBPAK10X12 D305	Shelter Assistance to Flood Affected Population (WASH)	552,756	UN CERF	Sep 10 – Dec 10	Completed
36	XBPAK10X10 D307	[Facilitating Return of IDPs through] Rehabilitation of Community Infrastructure and Facilities	3,460,000	Korean International Cooperation Agency (KOICA)	Dec 10 – May 12	On-going
37	XBPAK10X13 D308	Early Recovery Project for Rural Sanitation	115,432	UNICEF	Nov 10 – Oct 11	Completed
38	XBPAK10X14 D309	Shelter Assistance for Vulnerable and Extremely Vulnerable Returnees in Sindh Province	500,000	UN CERF	Nov 10 – Feb 11	Completed
39	XBPAK10X15 D310	Implementation of the Inter-cluster Survival Strategy through WASH Activities	401,338	UN CERF	Nov 10 – Feb 11	Completed
40	XBPAK10X16 D311	WASH assistance to flood-affected population in Baluchistan	98,341	CIDA	Nov 10 – Mar 11	Completed
41	XBPAK10X17 D312	Internally Displaced Persons and Communities Affected by the Floods in Pakistan	675,141	UNHCR	Nov 10 – Dec 10	Completed
42	XBPAK11X01 D315	Pakistan Settlements Flood Recovery Project	44,629,670	Japan	Jan 11- Dec 11 (Feb 12)	On-going

No.	Project No./ Proj ID	Project title	Budget/USD	Donor	Planned Duration	Status
43	XBPAK10X18 D316	Community Driven Shelter Interventions in Sindh as response to Pakistan 2010 flood	2,721,624	DFID	Jan 2011 – Sept 2011	On-going
44	XBPAK11X03 D318	Improvement of 29 School Buildings in Khyber Pakhtunkhwa	117,869	UNESCO	Jan 11- Mar 11	Completed
45	XBPAK11X02 D325	Geographic Information System (GIS) Capacity Building for National Population Census	995,000	UNFPA	Feb 11 – Dec 12	On-going
46	XBPAK11X04 D328	GIS Automation and Capacity Building Support for Census	172,074	MDTF One UN Fund	Jun 11 – Dec 12	On-going
47	XBPAK11X05 D331	Towards Refugee – Host Fusion	200,000	UNHCR	Oct 11 – Dec 11	Completed
48	XBPAK11X07 D332	Life-saving WASH Interventions for Flood Affected Populations in Mirpurkhas, Tando Allah Yar, Tando Muhammad Khan, Sindh	697,779	UN CERF	Oct 11 – Jan 12	On-going
49	XBPAK11X06 D333	Emergency shelter support to the most vulnerable population of Sindh Floods 2011	1,498,942	UNCERF	Oct 11 – Apr 12	On-going

ANNEX III: EVALUATION PROCESS

General

It is difficult to ascertain who will make use of this evaluation. Few people will read a 70-page report. The Pakistan Office staff acknowledge that most people will only read the Executive Summary, which is by design a brief summary, not a report on the detailed history of UN-Habitat's role in Pakistan, as the Regional Office thought it should be.

The project proposals of the key Pakistan Settlements Flood Recovery Project (PSFRP) and KOICA projects included mention of a final evaluation.

The research culture in Headquarters is evident in the broad scope of this report—something that is not typical of an evaluation with these design limits. Nonetheless, the Evaluation Team did not find more than a few people in Headquarters who were interested in the work of the Pakistan office.

The Regional Office and the Country Office know in far more detail what occurred over the years than would ever be included in an evaluation survey report such as this. Even so, there is an ongoing division within UN-Habitat about the record of the administration in 2005 and that of the administration at the end of the term in 2012. The international consultants tried to exclude topics related to that conflict from the report, giving credit where it is due.

Evaluations, unlike research reports, must be focused and practical in outlining what a programme did and how it can be improved.

Who better than the Evaluation Team to assess the capacity of the Evaluation Unit, as it was encountered in the course of this evaluation.

Several problems in process are noted. First, it took the Evaluation Unit six weeks to form a team, supposedly due to the desire to find a team with regional and gender balance. The most important issue is to hire competent evaluators. Gender and nationality do not confer evaluation credentials; professional evaluation experience does.

No interviews were held with the Team Leaders to discuss the scope of the ToR or the schedule of the mission.

The long selection process left only two weeks to actually prepare the logistics and obtain a visa over a period that included a major holiday in Pakistan.

The evaluation team was composed of two international consultants, one of whom arrived a week after the evaluation was launched by the Evaluation Officer from Headquarters, and two national technical consultants: an architect and an engineer (who was absent for half of the consultancy).

Had the Evaluation Unit delayed the start of the evaluation by one week, until the second Team Leader arrived, many of issues would have been detected and rectified in an Evaluation Plan pertaining to the scope of work, access to project areas and the evaluability of the projects. The development work is not very evaluable or significant enough in scale to warrant a report of its own, and makes this evaluation report too long and disjointed. (The Evaluation Unit said the mission could not be postponed because staff at headquarters start to leave for Christmas break at the end of the first week in December—as the visit to Headquarters was a critical part of the evaluation.)

The Evaluation Officer from headquarters was present for the first week of the consultancy, in the absence of the Team Leader. She was meant to prepare the Evaluation Team by going over the evaluation methodology of UN-Habitat.

Both international consultants were named Team Leader, and divided the work load, and worked for months to overcome the fore-mentioned issues.

The three-month contract was delayed due to problems reconciling information gathered in field visits from the national consultants, whose contracts had ended. The architect was most obliging but the engineer failed to respond to queries about information he provided for the draft report. All consultants needed to have contracts to assure their availability until the work was completed.

The Evaluation Unit needed to circulate the report in a timely way. The draft report should have been circulated immediately to all concerned, but was

held by the Evaluation Office so that they could assess it against a UNEG checklist.

Because of these delays, the contract of the evaluators expired. The Team Leader asked for an extension of the contract but the head of the Evaluation office said the “contract was not by time but by output”. In fact, payment was by output; the contract was for three months and expired in January.

Normally, the report is circulated immediately and comments are made within ten days. In this case, the report was held for a month and the comments were only received after another three weeks—into the middle of March. By this time the consultants were involved in other projects.

Capacity Issues

In general, UN-Habitat lacks an evaluation culture. The Evaluation Unit has some training in evaluation but lacks practical field experience.

Therefore, it did not understand how such a broad title for the evaluation would limit the ability of the team to conduct a detailed evaluation.

Evaluations rely on primary evidence to identify how a project worked, with an eye on what can be improved. It should not rely on self-reporting by staff. That information should be confirmable through field visits. Otherwise, perhaps the project is not evaluable—suitable for evaluation. Evaluators assume that UN-Habitat undertook these projects because it had the expertise to do so. Therefore, the evaluators aim to document that it did what it planned to do, and, if not, what problems arose. Evaluators offer in impartial view as to what was found and make note of issues that Management needs to address in order to improve performance.

The Evaluation Unit in Nairobi consists of three persons, but only two evaluators, who seem to be charged with creating an evaluation culture and initiating evaluations of the Country Programmes. Training in evaluation does not make an evaluator any more than taking writing courses creates a writer. Leadership stems from broad-based knowledge and demonstrated professional experience.

The Regional Office also does not understand the difference between a research report and an evaluation, and expected the evaluation to include dozens of pages on the history of UN-Habitat's relationship with the Government of Pakistan, the changing context of UN aid work, and other details that a researcher could provide—or UN-Habitat already knows.

Likewise, the Country Office had little experience with evaluations, or with setting up monitoring and evaluation frameworks for its projects. The limits and purpose of the evaluation should have been discussed in advance with Country Office staff. Some staff in the Country Office were confused as to the methodology of a qualitative versus a quantitative evaluation and said the evaluation should have included a field sampling of the shelters. The Evaluation Team did not have two months and a field team of ten researchers to do that, but one month to evaluate eight years of projects. Clearly, evaluators do not gain the level of detail that Programme staff gain as they work on a project over several years.

Evaluation capacity should be established at the Regional office to assist the Country Office. However, the Regional Office is too far removed and lacks the capacity to play much of an oversight role. The Country Programme Manager said that he had asked for an evaluation of the work under his tenure. That is normally the focus of an audit, but not an evaluation, which considers a programme or coherent scope of work. The Country Office had not even evaluated what was heretofore its main project—the earthquake of 2005—for reasons it did not explain.

Now that UN-Habitat has had time to rehabilitate some of the shelters damaged in later rains, a focused evaluation of PSFRP might give a better record of UN-Habitat's achievements—and satisfy the request of the donor. The KOICA project should be fully evaluated in all districts by a national evaluator, who has physical access to the sites. And the two earthquake interventions should be assessed through an internal evaluation, as a learning exercise, so that UN-Habitat can finally determine whether the methods used in 2005 are of merit in other settings or a one-time occurrence.

Logistics

The Evaluation Team was hindered by the apathy of the Administrative Assistant in the Evaluation Unit, whose role was to assure the process ran smoothly. From obtaining the visa, to reserving travel dates, to securing DSA in Islamabad, to receiving information about payment under the contract, the international consultants had to deal with misinformation, delays, and a surly attitude. Given that the information in every case could have been obtained through an email to the concerned office, this indicates poor performance that can only hinder the work of such a small office.

Until the evaluators dealt directly with the Islamabad office and bypassed the Evaluation Office, a correct letter for obtaining a visa was not issued. The international consultants were told their payment would be monthly, instead of according to output—presumably because that is what staff at headquarters receive. The evaluators found out that the Islamabad office could pay DSA in cash on arrival. Evaluators were told changing their ticket was a costly process, but it would not have been if the tickets had been purchased by the Office in Islamabad—where they would have been much cheaper. The evaluators could change their tickets themselves with the airlines at no charge.

Although the mission was extended by a week (requiring the consultants to rearrange their personal plans), and all ongoing travel dates had to be changed, the Administrative Assistant refused to change them to the preferred dates until challenged. Questions about reimbursement for travel expenses was met with an insistence that the process took place online, when an email to the UNON office revealed that consultants still do fill out and sign a reimbursement form. It created extra work for the Evaluation Team who had to solve its own problems.

The Islamabad Office, on the other hand, offered smooth and timely financial and logistical support, from transferring funds to extending visas, and purchasing plane tickets. It was an extremely

competent administration with excellent managers, and contrasted the functionality of a Country Office with headquarters.

Other issues of the evaluation

- The design of the evaluation. This is normally the work of the Team Leader, who has to execute it, in discussion with the Evaluation Unit and Country Office. Here it was done by the Evaluation Unit, with no advance consultation with the Team Leaders, which resulted in a design that was not fully evaluable.
- The scope of the evaluation. It is too broad in subject matter or too limited in timeframe, to be conducted by the field team chosen. The title sounds more like a research report favoured by Headquarters than an evaluation focusing on programme improvement. The report is too long for a general audience and not detailed enough for the specialist, and includes programmes that could be reported but not evaluated.
- The composition of the Evaluation Team. It had two international evaluators to divide the field work, and two national consultants who were available for duration of the evaluation. Had one of the national consultants been the second evaluator (second Team Leader), the Evaluation Team would have had better access to cover programme sites.

The Terms of Reference envisaged covering the floods and conflict response, since they were large projects, with a One UN project thrown in as an example of development work, and an overview of other project areas. However, the first meeting scheduled was with an expert on the earthquake of 2005, and soon the Team was asked to “look at everything”—about 50 projects, over seven years—in a 60-page report, which the Team Leader stated few people would read.

ANNEX IV: INTERVIEWS

UN-HABITAT

Headquarters - Nairobi

Jan Meeuwissen,
Branch Coordinator, DRR and Rehabilitation

Clarissa Augustinus, Chief, Global Land Tool Network Unit

Janna Mioch, Project Officer/ Acting Branch Coordinator

Andre Dzikus, Coordinator, Urban Basic Services Branch

Mohamed El-Soufi,
Branch Coordinator, Housing and Slum Upgrading

Elkin Velasquez,
Unit Leader, Regional and Metro Planning Unit

Mohamed Robleh,
Oversight and Monitoring Officer, Office of Mgt

John Hogan, Human Settlements Officer

Thomas Melin, External Relations

Naison Mutizwa-Mangiza,
Chief, Policy and Strategic Planning

Dorothy Mutizwa-Mangiza,
Programme Coordination Officer

Raphael Tuts, Head of Training and Capacity Development

Adebanjo Modupe, Gender Portfolio Officer

Jean-Christophe Adrian, Director, Brussels Office (by Skype)

Regional Office- Fukuoka

Bruno Dercon, Human Settlements Officer

Lalith Lankatilleke,
Former Chief Technical Advisor (by Skype)

Country Programme Office- Islamabad

Siamak Moghaddam, Country Programme Manager

Bella Evidente, Sr. Programme Management Officer

Maria Mucciarella, UNV Civil Engineer

Subtain Hussain, IT Officer

Yousaf Gill, Senior MIS Officer

Kamran Ahmad, GIS Officer

Atifullah Khan, IT Officer

Asim Hafeez, MIS Officer

Muhammad Kaleem, MIS Associate

Lubna Yaqoob-Senior MIS Assistant, Web portal

Abbas Ibrahim, Programme Manager

Zahid Khattak,
Programme Manager Land Programme, ex-Manager, KP

Nazish Fatima Syed, Training Facilitator

Hamid Mumtaz,
Manager, Community Mobilization and Infrastructure

Waqar Qazi, Housing and DRM Officer

Kamran Naeem, Programme Manager, Basic Services Unit

Tawqeer Abbasi, Project Officer, Urban Services

Sana Hussain, Environment Clubs

Riaz Akhtar, Urban Planner

Sarmad Khan, Urban Planner, Economist

Khanzad Shah, Project Engineer, Sustainable Urbanization

Seem Saeed, Architect

Hira Munir, Community Infrastructure Engineer

Mohammad Kamil, Project Assistant

Mansoor Sadiq Malik, WASH Engineer

Sajjid Rashid, Solid Waste Specialist

Shazia Shahid, Sr. Project Associate

Rizwara Kausar,
Behavior Change Communication Specialist

Sana Hussain, Project Associate

Fazal Noor, Urban Specialist

Sobia Kapadia, Urban Planner, ex-Field Coordinator

Beyan, WASH Specialist

Ghulam Abbas, Project Associate

Kamal Khadka, Shelter/WASH Specialist

Awais Abbasi, Project Management Officer

Saqib Sharif, Reporting Officer

Ghazala Siddiqui,
Communication and Public Information Officer

Miki Yoshimura, Public Relations Officer

Azhar Hussain, Graphic Designer

Mudasir Manzoor, Consultant Graphic designer

Torsum Khan, Communication Assistant

Sadaf, Gender Specialist

Saeed Shah, Sr. Admin Assistant

Maggie Stephenson,
Former Chief Technical Advisor (by Skype)

Provincial Operations- Baluchistan, Khyber Pakhtunkhwa, Punjab, and Sindh

Atif, Monitoring Engineer, Baluchistan

Naseer Shah, Provincial Manager, Baluchistan

Sardar Parvez Ahmad, Field Coordinator, Baluchistan

Shuja Ahmad, Social Mobilizer, Baluchistan

Kiran Fatima, Social Mobilizer, Baluchistan

Muhammad Naseer Khan, Monitoring Social Mobilizer, Baluchistan
Ikram Yaqub, Field Coordinator
Majid Afridi Asgar, Field Coordinator
Kashif Iqbal, Project Manager, KP
Ghulam Jilani, Architect, Monitoring Officer, KP
Ayaz Raja, Communication and Reporting Officer, KP and FATA
Mian Fayaz Ahmad, Monitoring Engineer, Mardan
Tanvir Abbasi, Social Mobilizer, Swat
Ahmad Mukhtar, Social Mobilizer, Mansehra
Nighat Seema, Social Mobilizer, Boobak
Riaz Akhtar, Provincial Manager, Punjab
Sanaullah, Field Coordinator, Muzzafargarh, Punjab
Abid, Monitoring Engineer, Sindh
Eng. Shiraz Shah, Sub Engineer, Sindh
Imran Sharif, Sub-Engineer, Sindh
Nazia, Social Mobilizer, Sindh
Parveen Bibi, Social Mobilizer
Sadia Fazli, former Provincial Manager, Sindh
Sajid Rashid, Field Coordinator, Sindh
Sobia Kapadia, Field Coordinator, Sindh
Tahir Naqvi, Field Coordinator, Jacobabad, Sindh
Usman Sarwar, Monitoring Engineer, Sindh
Abdul Saboor, Monitoring Officer
Shomailia Roohi, Monitoring SM
Abid Tariq Monitoring Engineer
Muhammad Uzair, Engineer
Shabbir Hussain, Sub-Engineer
Nazir Ahmad Siyal, Social Mobilizer
International Agencies
Mio Takagi, Economic Advisor, Embassy of Japan
Naoaki Kamoshida, Counsellor, Econ. and Dev., Embassy of Japan
Bob Levinson, DFID
Magnus Wolfe-Murray, DFID Shelter Consultant
Timo Pakkala, UN Resident Coordinator
Waheed Lor-Mehdiabadi, UN Resident Coordinator's Office
Lynn Hastings, Head of Office, OCHA
Annette Hearn, Emergency Operations, OCHA
Rabbi Royan, Representative, UNFPA
Neill Wright, Representative, UNHCR

Dr. Roshan Chitrakar, Programme Specialist, UNESCO
Dr. S.K. Kamrani, Education Officer, UNESCO
Sameer Luqman Qureshi, Project Officer, DRR, UNESCO
Irshad Hussain Tirmazi, Consultant-TVET, UNESCO
Rabia Khattak, Chief, Crisis Prevention and Recovery Unit, UNDP
Hidayat Ullah Khan, Programme Officer CPR Unit, UNDP
Carl Paulsson, Head of Programme, WFP
Izora Mutya Maskun, Emergency Operations Manager, IOM
Maria Moita, Shelter Cluster Coordinator, IOM
Raza Farrukh, Senior Project Officer, Asian Development Bank
Shahnaz Arshad, Senior Urban and DRM Specialist, World Bank
Haris Khan, World Bank, Disaster Risk Management Specialist
Shah Murad Aliani, Country Representative, IUCN Pakistan
Naveed Ali Soomro, Project Officer, WWF Pakistan
Salman Safdar, Humanitarian Affairs Officer, OCHA/Sindh
Shaqir Arapi, Head of Sub Office, IOM, Peshawar
Raja Arshad Rashid, IOM Peshawar
Government of Pakistan
Dr. Javed Ali, Director General, Ministry of Climate Change
Brig. Zafar Iqbal Qadir, Chairman, NDMA
Brig. Sajjid, Head of Operations, Prime Min. Secretariat
Zeb-U-Nisa, Dir, NDMA DRM Focal Point for One UN
Gen. Nadeem, Ex. Chairman, ERRA and NDMA
Zahid Ameen, Ex-Chairman, NDMA
Tahir Shamshad, Vice President, Capital Development Authority
Mrohammad Safdar, Dir. Gen.Housing, ERRA Grievance Commission
Waqas Hanif, Ex-Adviser, ERRA
Javid Warraich, Ex-ERRA Landless Programme
Zafer Iqbal, Ex-ERRA, Ex-UNDP Shelters
Tariq Butt, Director Donor's Response, SERRA, PM Sec., AJK
Atiq-ur-Rehman Abbasi, Ex-Programme Mgr, Housing, SERRA
Mir Muhammad Aslam, Accountns Officer, SERRA
Syed Aneeb Gilani, Network Engineer, SERRA
Zulficar Ali Shah, Director, Relief and Operations, PDMA, KP
Ayaz Mandokhel, ex-DCO Nowshera, DCO Baluchistan
Dr. Ahmed Javed Gazi, DCO, Jaffarabad, Baluchistan

Mr. Abrar Ahmad Mirza , District Coordination Officer, Muzaffargarh	Lali, beneficiary, Bagan Buriro Social Welfare Association, Bagan Buriro village, Dadu
Amir Suhair , Secretary, Housing Department, Punjab	Khair Muhammad , Chairman Nawab , Treasurer
Riaz Ahmed , Deputy, Secretary Housing Department, Punjab	Muhammad Ramzan , President, Pandi Khan Talani, Dadu
Muhammad Shayan Shah , Dep. Director-Operations, PDMA Sindh	Ali Sher , beneficiary, Muhammad Ali Jatoi, Dadu
Dr. Rizwan Naseer , Dir. General, Emergency Service Academy, Punjab	Md Jaffar , beneficiary, Ghulam Nabi Jakhlang, Dadu
Dr. Arshad Zia , Director, Emergency Services Academy, Punjab	Md Ali , beneficiary, Muhammad Jatoi, Dadu
Fahim Ahmad , Planning and Dev. , Emergency Services Academy	Hussain Bux , General Secretary, Pasan Khan Golo, Dadu
Roqia Javed , Community Safety, Emergency Services Academy	Amman sb , member, Al Kahir Welfare Organization, Munchi Mari village, Cattle Farm UC, Jaffarabad
Mr. Ali , District Coordination Officer	Jaffar Ali , General Secretary, Ghareeb Dost Social Welfare Organization, Safar Jattak village, Cattle Farm UC, Jaffarabad
NGOs	Qayum Jan , beneficiary, Boobak CCB, Boobak village, Charsadda
Jennifer McKay , Disaster Management Consultant	Shaheen Welfare Society , Hayat Abad/Bangladesh, Charsadda
Zaffar Pervez Sabri , Senior Group Head, Public Good/ Services, PPAF	Saeed Ahmad , Chairman (Nazim), Guando Haji Abad CBO, Charsadda
Naunehal Shah , Team Leader, Disaster Preparedness Unit, PPAF	Saeed Ahmad , Chairman (Nazim), Guando Haji Abad CBO, Ghundo Khundo Kas village, Charsadda
Kareem Nayani , Agha Khan Development Network, Islamabad	Rehman Abad CBO , Rehman Abad village, UC Shamozi, Mardan
Sumaira Gul , Programme Manager, Akhtar Hameed Khan Trust	Aqaz Welfare Organization (women's CCB) , Rehman Abad village, UC Shamozi, Mardan
Asiya Sultana , Supervisor, E-Guard	Bacha Khan , beneficiary (IDP), Shamozi, Mardan
Nadir Mansoor , Sr. Manager, Infrastructure Dev. and Shelter, HANDS	Jamal Ghari , beneficiary (IDP), Shamozi, Mardan
Friends International , Islamabad	Abdur Rashid , Chairman
Shahnaz Kausar , Project Coordinator, Plan International	Muhammad Ibrahim , Secretary, Ujala CCB, Muhammad Pur village, Muzaffargarh
Iffat Jamil , Program Unit Manager, Plan International, Islamabad	Mansoor Hussein , member, Muhammad Pur village, Muzaffargarh
Dr. Manzoor , Deputy Program Manager, Sungi	Sharif Aman , member/ beneficiary, Muhammad Pur village, Muzaffargarh
Imran , Project Manager, Youth for Action Pakistan, Sindh	Sharif Muhammad , member/beneficiary, Kumhar Wala village, Muzaffargarh
Ashfal Ahmad , Awami Welfare Society, Mingora, Swat	Hazoor Bach , member/ beneficiary, Kumhar Wala village, Muzaffargarh
AJK Rural Support Programme	Kalimullah , Saqib CCB, Kumhar Wala village, Muzaffargarh
Zahid Amin , Municipal Cooperation, Muzaffarabd	Akhwat CCB , Shadi Khala village, Muzaffargarh
CBOs/Beneficiaries	Malik Qadeem , Committee chairman, Friends CCB and Alhaider CBO, Walwal village, Shah Jamal UC, Muzaffargarh
Nasreen Malikanan , Chairperson Boobak village	Samiullah , member, Walwal village, Shah Jamal UC, Muzaffargarh
Mohammed Latif , trained carpenter, Muzaffarabad	
Nazir Ahmad , trained carpenter, Muzaffarabad	
Irsha Ali , beneficiary, Karim Dad Lund, Dadu	
Allah Baz , beneficiary, Karim Dad Lund, Dadu	
Sajid Baz , beneficiary, Karim Dad Lund, Dadu	
Wali Muhammad , President	
Haresh Kumar , General Secretary, Bamboor Development Organization, Karim Dad Lund, Dadu	
Muhammad Bux , Kandi Choki village, Dadu Ali Sher , General Secretary Muhammad Hayat , President	

ANNEX V: FIELD VISITS

Interviews with Citizens Community Boards and Community Based Organizations and actual project site visits in:

LIST OF VILLAGES VISITED

Muzaffarabad, AJK

Central Emergency Response Fund Project (CERF)

Tando Muhammad Khan district, Sindh

1. James Masih village
2. Haji Ghulam Nabi Shaikh village
3. Qasim Zahoor village
4. Ghoram Khan Wassam village

Pakistan Settlement Flood Recovery Project (PSFRP)

Thatta District, Sindh

5. Bacho Setto Village
6. Gul Mohammad Gandhro village
7. Salih Jamari village
8. Raju Nizamani village

Dadu district, Sindh

9. Karimdad Lund village
10. Gopang village
11. KandiChoki village

Jacobabad district, Sindh

12. Muhammad Ibrahim village
13. Muhammad Ibrahim Bariro-I village (a DFID village)
14. Lal Batti village
15. Pandi Khan Talani village
16. Ali Muhammad Jatoi village
17. Passand Khan Golo village

Muzaffargarh district, Punjab

18. Muhammad Pur village
19. Kumhar Wala village
20. Saqib village
21. Shadi Khala village
22. Walwat village

Jaffarabad/Nazeerabad districts, Baluchistan

23. Abdul Majeed Sub-Village
24. ZamanTareem village
25. Munchi Mari village
26. Safar Jattak village

Charsadda district, Khyber Pakhtunkhwa

27. Boobak village
28. Hayat Abad village

Rehabilitation of Community Infrastructure and Facilities Project (funded by KOICA)

Peshawar, KP

Swat District, Khyber Pakhtunkhwa

29. Dadara village
30. Dherai Baba Aligrama village
Sjband and Kanju villages

Mardan District, Khyber Pakhtunkhwa

31. Ghundo Haji Abad village and Ghundo Khundo Kas sub-village
 32. Rehman Abad village
 33. Arakh Palo village
- Federally Administered Tribal Areas (FATA)
Bajaur Agency, FATA
34. Chingarho village
 35. BalamKhar village

Central Emergency Response Fund (CERF) Project

Tando Muhammad Khan district, Sindh

1. James Masih village

With CERF funding, 61 shelters were built, two hand pumps and three latrines were installed. A number of solar lights were also provided. Residents were happy with the work of UN-Habitat, especially with the shelters which were better than the ones they had before the flood. The solar lights have been a great help.

Residents noted the lack of potable water is one of their main problems.

Beneficiaries welcomed the Loh-kat model of their shelters. They noted the roof frames were set too far apart and does not hold the plastic roofing sheets intact and allowed water to stay in between braces. Without a strong material to put over it, the plastic roof is vulnerable to damage by strong winds. Often a rope or two pieces of bamboo placed on top is inadequate to hold the plastic sheet from gusty wind. Some homeowners overlaid the plastic roofing with a mat of grasses, while others tied ropes or bamboo poles across the roof to hold the plastic sheet in place and minimize the damage of wind. Beneficiaries also made significant improvement on their shelters by plastering the walls and floor. Still others did nothing to correct the problem.

Three UN-Habitat model latrines were visited. Out of three model latrines, one was partly used but un-maintained (human waste kept inside the bowl for a considerable period) and the other two for domestic storage. Of the two latrines used for domestic use, one had a septic tank open. The beneficiary had no interest to put the wooden panel provided by UN-Habitat to cover the septic tank.¹³⁸ However, a member of the Evaluation Team also found some well-maintained latrines in other location in the village, presumably not CERF-funded. A member-specialist of the evaluation team noted the quality of hand-pumps was quite unsatisfactory and did not incorporate disaster risk reduction measures.

2. Haji Ghulam Nabi Shaikh village

Many latrines shown to the evaluation team were incomplete, abandoned or in poor maintenance condition (refer to photos). Several septic tanks dug along the village road were open (and producing a bad smell on the roadside) as construction stopped due to lack of community resources or interest to complete them. Community further asked UN-Habitat to complete the work it has started.

A case of good example: UN-Habitat built a latrine for a household. The latrine was well-maintained and in good condition.

But then the household asked for additional latrine. UN-Habitat provided three additional latrines with a common septic tank.¹³⁹ Of the three additional latrines, one was in use, the second one used for storage and the third was locked with household items inside. The evaluation team was told that the owner of the third latrine was out of the village during the time of the visit and will use it upon return. Evidence shows the latrine has been locked for months (photo available).

There were 54 shelters constructed by UN-Habitat using wood sticks (presumably of poplar species that is common in the area) instead of bamboo. The shelters appeared to be of smaller size than those found in other CERF-project villages but appeared to be more durable and long-lasting. The adaptation was approved by UN-Habitat which considered the availability and cost of materials for shelter construction. Beneficiaries plastered the walls with mud, and constructed verandahs to their shelters. Beneficiaries were happy of their shelter and for Habitat's assistance.

3. Qasim Zahoor village

There were 60 households in the village with 20 latrines. UN-Habitat installed four hand pumps.

The Team visited a sub-village. On the sub-village, there were nine households with six hand pumps. One hand pump was installed by UN-Habitat which was the only one not functioning since past months. The member-specialist of the team noted the hand pump did not incorporate disaster risk reduction measures and was of unsatisfactory quality.

¹³⁸ Photo available by evaluator.

¹³⁹ Photo available by evaluator. Average cost of a latrine was USD 110.00.

Latrines were used jointly by a few families.

Beneficiaries mentioned that several latrines were not maintained. Availability of water was mentioned to be the main cause for not maintaining the latrines since beneficiaries with immediate access to water maintained their latrines.

Beneficiaries also noted that others purposely kept the latrines for storage.¹⁴⁰ Construction of latrine was not a priority of community members in some areas.

This was an example of waste of resources which meant that a more in depth assessment should have been carried out to determine the criticality of water prior to providing latrine and that appropriate types of latrine may have been introduced to meet the constraint of every location. The lack of interest on the use of latrine may have been linked to water availability.

4. Ghoram Khan Wassam village

The team member who visited the village noted the beneficiaries' appreciation of UN-Habitat's assistance. Village residents noted that the people's process used by UN-Habitat has improved community participation resulting in improved quality materials and workmanship of their shelters. They also noted their disaster risk reduction and safe construction skills have improved through the training they had received from UN-Habitat.

Village residents mentioned the problem of the roof frames that were set too far apart that caused the plastic roof sheet to sag, and that corrections had already been made by some beneficiaries.

Pakistan Settlement Flood Recovery (PSFRP)

Thatta District, Sindh

5. Bacho Setto Village

Bacho Setto village was severely hit by 2010 flood, and in some locations by 2011 flood. UN-Habitat entered into an agreement with Bacho Setto Citizen Community Board (BSCCB), formed by UN-Habitat to "serve as a venue for working together to construct houses, develop community and assist UN-Habitat." There was a community-based organization in the village but with only six members. UN-Habitat wanted to increase membership to 20.

BSCCB had 20 members, seven were present during the visit. It had 16 shelter beneficiaries out of 20 members. Altogether a total of 110 village residents that benefitted from shelter (94 were shelter beneficiaries but not members of BSCCB). The beneficiaries were proud of their new shelters. They painted the walls beautifully and decorated the front side. They were very happy for the shelters provided by UN-Habitat which were much better than their previous homes.

The officers mentioned that 20-25 households equally needed shelter but could not provide community share, and were eliminated. There were also four to five extremely vulnerable households that missed the beneficiary intake period. UN-Habitat promised to provide shelter to the Extremely Vulnerable households.

There were several latrines constructed in the village. With information from UN-Habitat, a block latrine was meant to accompany the shelters. However, beneficiaries' own money went to their community share for shelter and could no longer afford to provide for latrine.

UN-Habitat likewise provided 12 latrines, but could not be completed because the beneficiaries changed priority. The budget was then diverted for the construction of 3 washing pads with approval of UN-Habitat.

The completed latrines were visited by members of the community-based organisation and members of the evaluation team. Most latrines (constructed through PSFRP funds) were not maintained and in dilapidated condition.¹⁴¹ A member of the team noted the lack of water supply as the main cause for abandoning the latrine, which is also the reason for residents to resort to open defecation as the only alternative. This meant to indicate that availability of water is critical for planning any health and hygiene project that incorporate provision of latrine.

6. Gul Mohammad Gandhro village

The entire village was located in the River Indus. All houses were washed away during the 2010 flood. Through the efforts of Seth Ramzan Gandhro Sardar, a political activist and the village's all-male membership CBO Action for Rural and Coastal

¹⁴⁰ The main village was of considerable distance. The Team visited a sub-village.

¹⁴¹ The expert member of the team estimated around 80 per cent of latrines provided for by the project were abandoned due to lack of water.

Development¹⁴², the village obtained a relocation site on a nearby government land. The new location site is located along the eastern bank of River Indus, considered to be flood-safe, being at least 200 feet higher than the river bed.

Despite the feeling of safety from flood being on top of a ridge, residents noted that the site is a passage way of strong wind that sweeps into the river. An expert-member of the team noted that "due to incorrect hazard assessment most of the money went into spending on strong 'flood resistant' foundations in a relocated area where there is no flood risk and the house remained incomplete and without roof due to lack of financial resources." This meant to indicate that the focus of construction should be using resources to build strong roof than for flood-resistant foundations. Clearly, disaster risk reduction protection measures should be considered in planning for any support to relocated community.

A total of 113 (97 vulnerable and 16 extremely vulnerable families) beneficiaries were identified for shelter assistance. Out of 113 shelters targeted for construction, 30 units were not complete (the shelters did not have roof) due to inability of beneficiaries to produce community share on time. The village has been known to be a community of fisherfolks. Male members travel to Karachi every year to work in the fishing industry. At the time of the visit, most of the male head of households had travelled to Karachi, about 300 km away to earn income.

Beneficiaries promised to complete their shelters, if and when they earn better income. Some members of the community believe that it could take months or years to complete the shelters due to the decline of fish catch in Karachi.

Perhaps in consideration to some of the basic standards of urban planning is ensuring proper access to power. The village was not connected to a power grid and appears to access power through illegal means. Support was necessary to link the community, perhaps the community-based organisation to access to key decision makers of the electric industry.

The community recalled a few training conducted by UN-Habitat such as shelter construction techniques and procurement. They did not receive any health and hygiene and disaster risk reduction trainings, as those provided in Daduri village, another UN-Habitat beneficiary village which many beneficiaries frequently visit.

Acquisition of the relocation site presented itself an opportunity to advance social protection. Among women, it was an opportunity to register their home lots and shelter to their names had somebody, like UN-Habitat could have advocated for women's protection.

7. *Salih Jamari village*

UN-Habitat worked in Salih Jamari village through two community-based organisations—Quaid-E-Azam Social Welfare and Development Organization (Quaid-E-Azam CBO) and Rehman Citizen Community Board (RCCB). Both organizations have a combined target of 245 shelters.

The team met with Quaid-E-Azam CBO who showed samples of projects it has implemented. UN-Habitat provided 118 shelters, 118 latrines, four hand pumps and conducted one health and hygiene promotion campaign and improved the community street pavement. RCCB projects were located in another section of the village.

The main problem of the village was shelter, and thanked UN-Habitat for providing shelters. The community is happy.

The latrine provided was a good project, but community recommends that a bathroom be included, so it is also more useful for women. Women responded positively to 'washing and tooth brushing' training provided by UN-Habitat, and the practice is now common in the village. An under-aged girl wanted to become member of the community-based organisation but her brother did not allow her. She protested visibly to be included but denied by the all-male community-based organisation members.

¹⁴² Community-Based Organisation ARCD was organized by previous NGOs that worked in the village.

The Community Center built by UN-Habitat showcased flood resistant features, which can be a model for other communities. Similarly the Vocational Training Centre for women with earthquake-resistant features, energy efficient walls, rain water harvesting and solar energy component can also be a good model to be replicated. UN-Habitat should be promoting model type projects such these. The community planned to collect small amount from village residents to maintain the community infrastructure when the need arises.

UN-Habitat conducted disaster risk reduction training, mainly on the types of hazards but did not teach much about how to be prepared in the event of a disaster.

8. Raju Nizamani village

UN-Habitat worked in Raju Nizamani through an Agreement with Roshni Welfare Association (Rosni) and Sujag Shehree Welfare organization (Sujag). Sujag, a CBO established in 1988 was offered two contracts. UN-Habitat's data-base only records the number of beneficiaries of one of Sujag's contract (SD-D315-11-0012) with 100 beneficiaries. The combined target of Roshi and Sujag is 190.

Sujag was said to be a strong community-based organisation with well-functioning committees. It has been very active during Eid occasions, distributing over the counter medicines, and running some fund-raising activities during emergency. However, the evaluation team could not verify the information provided due to lack of records available during the visit.

HANDS, SPO and Action-Aid are other organizations working in the area.¹⁴³

UN-Habitat constructed a total of 224 shelters in the village through Roshni and Sujag. Forty-five of which were constructed in the cluster visited by the Evaluation Team. The community reported that all 224 shelters were completed and occupied by beneficiaries.

UN-Habitat and Action Aid conducted training on disaster risk management. Four members of the community-based organisations attended the training. UN-Habitat also conducted trainings on

¹⁴³ HANDS and SPO are major regional NGOs in Sindh, Action Aid an international NGO.

record keeping, house construction, disaster risk management, health and hygiene.

Dadu district, Sindh

9. Karimdad Lund village

UN-Habitat targeted 453 shelters to construct and completed 483. 117 units of latrines were targeted and completed 407 units.

UN-Habitat formed three community-based organisations [Garbi Nawaz Taraqiati Tanzim, Hamdard Taraqiati (or Tarkiati¹⁴⁴) Tanzim, and Hum Khayal Tara] in agreement with the District Coordination Officer, assisted in their registration and signed Community Agreements with them as partners. The chairperson was a landlord who signed 3 CAs- all belonging to the same family. The need to create community-based organisations was due to the need to reduce caseload into a manageable level, as too big caseload on a single PCA was seen to be too risky to handle.

Out of 51 CAs in Dadu district, 18 (30 per cent) were problematic. There was widespread corruption within the community-based organisations. Misunderstanding and suspicion grew between and among CBO officers and UN-Habitat project staff. Among the cases reported to the evaluation team includes:

- Staff asked CBO to sign a check, then took the check allowing them to buy shelter materials and deliver to the CBO,
- CBO rejects the materials- and noted these were overpriced and substandard. CBO noted the materials were available in nearby market, but UN-Habitat project staff purchased the items from faraway place forcing the price to increase, and
- CBO believes that the whole problem of corruption was a result of infighting between the 1st and 2nd UN-Habitat Coordinators and UN-Habitat Islamabad did not immediately act to resolve the issue, insinuating possible connections on the inside as the cause.

¹⁴⁴ UN-Habitat community-based organisation data base lists Hamdard Taraqiati Tanzim and Hamdard Tarkiati Tanzeem as two separate community-based organisations (with cooperation agreements SD-D315-11-0010 and SD-D315-12-0134 respectively). The community mentioned only three community-based organisations operated in the village.

- CBO reported to have completed 483 shelters than targeted 453 units, but UN-Habitat has not release the money.

There was confusion on assessment criteria for selection of beneficiaries. Some beneficiaries were not extremely vulnerable or vulnerable because UN-Habitat field staff said. An account of the chairman, the community was informed that “all families affected can avail of Habitat housing, thus rich person like me can avail, and I did. The objective is to avail of the funds.”

The confusion opened cases of subjectivity in beneficiary selection. Mr. Irshad Ali, a village resident questioned why he was dropped from the list. He thought he was on the same situation or even worse than many of the beneficiaries identified. Participants during the visit indicated that community-based organisation leaders chose the beneficiaries they wanted as long as they were affected, regardless of their vulnerability status which was according to the beneficiary selection criteria provided by UN-Habitat.

Mr. Allh Baz, a beneficiary with five children benefited from the project. He received shelter materials from the chairman, and built his shelter. He is proud to say that his new shelter will not collapse anymore as did his previous shelter. His family members attended hygiene and sanitation training.

On WASH, 80 percent of latrines constructed funded by Pakistan Settlements Flood Recovery Project were un-utilized and in poor conditions¹⁴⁵ due to lack of water supply and beneficiaries not being used to it using latrine, therefore latrine is not a priority. This problem created another problem as beneficiaries of latrine projects continued to acquire and save project materials for other purposes. Cases were reported where beneficiaries of latrine kept a bag of cement provided by the project along with sand as ‘community share’ for shelter construction. This problem could also explain why septic tanks in Karim Dadlund and Gopang villages were undersized and un-utilized.

Workmanship- doors and windows of shelters in Karimdad Lund were observed to be of poor quality and mortar joints were not staggered.

¹⁴⁵ This is largely in contrast with KPK observation where latrines were built within distance to a water source, well utilized and maintained.

There was lack of capacity of the Community-Based Organisation on shelter construction, as was quality monitoring on the part of the project staff.

The problematic Agreement ended into breaking the contract.

10. Gopang village

UN-Habitat worked in Gopang through its community-based organisation partners—Bhambhore Development Organization (BDO), Kawish Development Organization (Kawish), Kawish Development Organaization Chandia Muhallah Vellage (Kawish Dev). BDO and Kawish Dev have a total target beneficiary of 207. Kawish final beneficiary count could not be verified in reports and the data base.

UN-Habitat's partners in Gopang village were new Country-Based Organisations. Mr. Wali Muhammad, President and Mr. Hareh Kumar, General Secretary of BDO mentioned that it took 15 days to form and register BDO.

They recalled the haste to spend a large amount with the promptings of UN-Habitat staff that motivated them to create a Community-Based Organisation:

“After 15 days, project staff came quickly and asked us to sign the Agreement. There was no time to study the terms and conditions. They gave us checkbook to sign and took it back. A week later, they brought project materials and asked us to store. We checked the list of materials and their prices and we found the prices were too high. They brought the materials (cement and bamboo) from faraway places, where as they were available in nearby markets with the same quality at much lower price. The bamboos were of low quality. We protested a lot, but they told us to carry on with implementation then stopped talking to us. We monitored the use of labor and masons—we disagreed with them (staff) on several issues but they said we don't interfere. Later on, we were told to have been found a shortfall of PKR 300,000. A police report was lodged against our community-based organisation due to the alleged corruption.”

Interview with a widow, an extremely vulnerable beneficiary:

"I am a widow used to live in a mud house, half smaller than the UN-Habitat shelter. My 14-year old son sells biscuits by the roadside to earn income. Income is always short to meet the needs of my family. UN-Habitat completely changed my house for the better that I could never afford. I am very happy for UN-Habitat's assistance. I received the housing materials, and attended health and hygiene training. Although I do not have latrine and hand pump in my compound and it's dangerous to go out at night I am still happy to have my new house."

The Team also noted undersized and un-sued septic tanks. Some shelters were not occupied. They were either locked or empty. Some shelters were used for other purposes (shop, livestock shelter, *daira* or guest room etc. Hand Pump did not incorporate disaster risk reduction measures during installation. The quality of some of the hand pumps unsatisfactory.

11. Kandi Choki village

UN-Habitat signed a Project Cooperation Agreement with Kandi Choki Citizen Community Board (CCB) and Moaj Development Organization to implement project in Kandi Choki village. Kandi Choki CCB was established in 2007, but has not implemented any single activity.

134 shelters and few hand pumps (no exact quantity) were targeted.

Some members attended record keeping training.

The Evaluation Team met with Kandi Choki CCB. During the visit, Mr. Muhammad Aslam Larik, CCB Chairman along with a few officers and community members recalled the experience with UN-Habitat:

- On 20th April 2011, UN-Habitat came to present the project, distributed business card and encouraged any interested village resident to contact the number of in the card. Two assessment teams identified 134 shelters to be constructed, with an estimated budget of PKR 7.9 million
- Followed by community mapping exercises.
- The staff left and returned with Project Cooperation Agreement, and asked the

community-based organisation Chairman to sign. Staff were in a hurry to leave.

- After signing, the community-based organisation received the first check from staff. Staff asked community-based organisation to sign the check, and took the signed check and left. Then they returned with project materials. Quality of doors and windows materials was poor. Staff informed that community-based organisation had to compromise to accommodate increase in price. We borne the outcome of delays of fund transfer from UN-Habitat.
- The community-based organisation questioned about the very little role given to them. Most of the activities meant for organisation were done by UN-Habitat staff.
- UN-Habitat handled almost all the transactions themselves.
- After 3rd instalment, UN-Habitat Country Programme Manager came to inform the community-based organisation had a deficit of PKR1.1 million.

Despite the problems, the community-based organisation officers mentioned the Project has greatly helped their village, with the shelters built specially for the extremely vulnerable families that could never afford to build. With the assistance, they are thankful for UN-Habitat.

The visit became an opportunity for the community-based organisation and community to express their grievances against UN-Habitat, for withholding information about their roles and responsibilities and limiting their space to exercise decision making. Trainings were extremely limited and staff did not explain community-based organisation's responsibilities they were expected to accomplish. The community-based organisation feels they were taken advantage of.

Jacobabad district, Sindh

12. Muhammad Ibrahim village

UN-Habitat signed an agreement with Bagan Bariro Social Welfare Association (President Muhammad Hayat, General Secretary Ali Sher), formed in April-November 2011, and built 72 shelters, constructed 1,350 running feet village road and pavement and latrines. UN-Habitat also distributed tree seedlings to beneficiaries.

The community-based organisation received 20 per cent for first instalment, which was not enough to simultaneously start shelter construction. To facilitate the work, the community-based organisation obtained materials from local vendors on loan that was paid in the subsequent instalment.

Four beneficiaries—who were brothers availed of UN-Habitat shelter project, constructed their shelters side by side and added PKR 200,000 (about USD 2,000) to construct a verandah made of brick in cement mortar. Before the flood, their house was made of adobe (mud). With support of UN-Habitat, their shelter was made of bricks and cement. The beneficiaries were happy thankful of UN-Habitat support. The same group of families also received tree (babar) seedlings from UN-Habitat free of cost, although they indicated they could afford to pay for it if they were asked.

Lali, an extremely vulnerable beneficiary received a shelter from the project. She was very happy of the support provided which she could not afford on her own.

Observation on latrine projects: latrines with no accessible water supply were unmaintained and abandoned. This observation was also common in other villages, especially in Sindh, which meant that availability of water supply was to be considered in planning for the provision of latrine.

Pre-flood practices on the use of latrine can also provide a clue whether providing additional latrine to a family is the right approach to support health and hygiene. Most families share a shelter (which may have one or more rooms) and also share a common latrine. One latrine was adequate for one shelter, even though they could afford to build additional latrines. Post-flood's WASH campaign that includes providing additional latrine was totally a new practice. This supports the observation that in a cluster of latrines (so far provided by UN-Habitat), one latrine was well-maintained while the rest of the latrines were un-maintained or used for other purposes. This indicates that proper study was required to ensure effective resources.

Observation of shelter projects: bitumen and pointing was rarely seen to be used in Katcha houses and the communities were not well trained or informed on how to use bitumen in most of the cases. On most of the shelters inspected, a 3-inch thick PCC pad beneath the girder was missing. The

issue can be serious for katcha houses where the girder could act like a pointed load. The bulging out of wall in areas under the action of unevenly distributed load of girders was also noted. This was also due to no PCC pad.

The quality of masonry was often weak however most of the shelters, especially weak cement mortar and poor quality of plaster up to sill / flood level.

Spontaneous implementation equally demanded on-time expert attention beyond the capacity of Citizens' Community Board/Community-Based Organisation partners and project staff to provide.

13. Muhammad Ibrahim Bariro-I village (a DFID village)

Shelter constructed on November 2011; flooded in 2 September 2012. At least 14 households evacuated to Quetta, Sukkur, and other places, as rain water (from torrential rains) came through roof and severely damaged our houses. Village streets were inundated and damaged (if not destroyed). Houses were not used. Rain water passed through the bricks, creating spaces and caused walls to collapse. House floors cracked and damaged.

Observation shelters:

Due to inadequate technical skills and no capacity building the partition walls were sometime added later between two shelters leading to poor joints at corners and thus long vertical cracks extended along the joints. Construction in un-reinforced masonry shall include stepped construction at corners and junctions and not the tothing type which makes it vulnerable and weak. The long vertical cracks extend along the joints. Un-reinforced masonry with no stepped construction can be very weak especially in mud mortar. Corners and partition walls shall be constructed in stepped and 'tothing' techniques. The community did not know about these techniques when interviewed.

Poor workmanship in securing girders and brick walls on houses was noted. There was bulging out of wall in areas under the action of unevenly distributed load of girders. This was also due to no PCC pad.

Some shelters (of those visited) were not occupied. They were locked, empty, or used for other purpose (i.e., shop, livestock shelter, guest room, etc.).

14. Lal Batti¹⁴⁶ village

Flood/inundation in the village in 2010 rose to 4 feet, in 2011 2 feet, and 2012 2 feet.

Shelter construction took place from May 2011 to April 2012, targeted 133 houses. Shelters and latrines that used mud suffered from cracks.

During the visit (December 2012), 30 houses were not completed due to lack of "community share" which beneficiaries promised to provide. In this village, "community's share" was to complete construction by providing doors and windows. UN-Habitat gave a shelter to the chairman of the community-based organisation, but the chairman gave it to one of his tenant.

Latrines were constructed, all made of mud mixture but those inundated collapsed. "We said to use cement mixture but Habitat did not listen." One beneficiary exclaimed.

Habitat conducted hygiene training, but not applied. No follow-up made, not monitoring conducted to ensure application and learning.

Plenty of accumulated salvaged fired bricks from 2010 floods but were not used for UN-Habitat shelters. Community prioritized using UN-Habitat-purchased bricks because they were new bricks and thought to be free of charge.

In most of the shelters inspected, a 3-inch thick PCC pad beneath the girder was missing. The issue can be serious for katcha houses where the girder could act like a pointed load. The walls also bulged out in some areas due to action of unevenly distributed load of the girders. This was also due to the absence of a PCC pad.

Two shelters constructed for extremely vulnerable beneficiaries with burnt bricks in *mud mortar* and all disaster risk reduction components fully damaged. The owner became more indebted. The owner invested PKR 25,000 to PKR 3000 as counterpart to a house that collapsed. Shelters in cement sand mortar resisted the rains.

A few good examples of house construction and drainage at roof level were noted.

Strong roofs also need to be given equal importance as strong foundations. The PCC pads under the drainage pipes could help prevent such cracks which were seen in most of adobe houses that survived.

15. Pandi Khan Talani village¹⁴⁷

UN-Habitat engaged the services of the Community-Based Organisation Pandhi Khan Talani Welfare Organization to build shelters in Pandi Khan Talani village.

Fifty-four families live in the village. UN-Habitat, the first organization to assist the village built 54 shelters (49 for V and five for EV). Goth Singar Foundation (GSF), a local NGO built seven culverts, conducted health and hygiene sessions and installed hand pumps.

Shelters of extremely vulnerable beneficiaries were built from fired bricks in cement masonry, while those of vulnerable beneficiaries were made of fired bricks with mud masonry.

The rains of 2012 severely damaged the walls and floors of 10-12 (20 per cent) UN-Habitat shelters that used mud masonry, as rainwater eroded roof and walls of the shelters. Nine shelters owned by beneficiaries who lacked the capacity to produce community share decided to use katcha bricks which totally collapsed.

UN-Habitat returned to provide technical assistance to beneficiaries interested to rehabilitate their houses. Many families could not afford the repair.

Shelters of extremely vulnerable beneficiaries used cement masonry survived the flood.

16. Ali Muhammad Jatoi village

Habitat built 44 shelters (4 houses for EV and 40 for V) all *pacca*, through CBO Baboo Khan Lohar Welfare Organization. The village was flooded in 2010 and 2012. It was under water during the visit and cannot be accessed. There were visible signs of erosion and crack on walls of UN-Habitat houses from a distance.

¹⁴⁶ Narrative account of beneficiaries gathered in a group during the visit.

¹⁴⁷ Direct observation and information provided by CBO officials: Khair Muhammad, Chairman, Nawab Treasurer and Muhammad Ramzan.

17. Passand Khan Golo village¹⁴⁸

There were 52 households in the village, five EV and 47 V, eight hand pumps (including two repairs) and one water tank, one water supply lines, street culverts. UN-Habitat worked with community-based organisation Pisand Khan Golo Welfare Association to build shelters in PK Golo village along with a number of other WASH and community infrastructure projects. The village had a budget of PKR 6 million (USD 63, 000 approx).

The village was flooded twice—in 2010 and 2012. Only UN-Habitat works in the village.

No organizations assisted on disaster risk reduction.

The village was under water during the visit, and cannot be accessed. The evaluation team met with Hussain Bux, General Secretary of the community-based organisation and a few members.

According to representatives of the community-based organisation, UN-Habitat identified 47 beneficiaries of shelters that used fired bricks. All shelters were damaged with several degrees of damage from minor to severe during the floods. 8-9 shelters were damaged due to rain only. Brick pavement with 600 running feet length was also damaged.

The community-based organisation noted the length of exposure to flood was a factor for the damage and the quality of work on the roof, walls and floors. And those that use fired bricks and mud masonry sustained the heavy damage and those that use fired bricks and cement masonry were stronger to withstand the damage.

Muzaffargarh district, Punjab

18. Muhammad Pur village¹⁴⁹

UN-Habitat worked with Ujala CCB in two Cooperation Agreements to work in 2 sub-villages with a total target of 227 shelters. Ujala CCB had 14 members. Most of the residents were out in their farm during the visit. The evaluation team walked around the village and saw UN-Habitat shelters. Most of the shelters were found to be of good quality overall, with a few that used substandard quality materials on window grills and door jambs. The villagers did not recall any trainings, youth or women-specific activities. They mentioned around

35-40 families who are extremely poor missed the programme. They were not able to return during the beneficiary intake period due to lack of financial resources.

Sharif Aman, an extremely vulnerable beneficiary used to live in tent, lost his shelter to the flood. UN-Habitat gave him a shelter. He is very happy with the shelter provided by UN-Habitat.

19. Kumhar Wala village

This village is a recipient of a Community Center built by UN-Habitat where 140 children go to study. The community collects small amount from students to pay for their salary. As more parents send their children to the Community Center willing to pay, there was a need to add more rooms. This is one good model of a sustainable project.

On this village, UN-Habitat constructed a water tank (5,000-7,000-liter capacity) on an elevated location towards the front of the Community Center to serve the village. While useful, some village residents noted the need to put a 'purdah' wall so that women can take water from it anytime of the day. The current practice has been for women to wait for the men to leave the periphery before they (women) can approach the water tank. Generally the community is happy because there is a steady source of potable water in the village.

20. Saqib village

UN-Habitat worked with Saqib CCB to construct 118 shelters.¹⁵⁰ It took 1.5 years to construct the target shelters. Beneficiaries were asked to state their preference of the type of shelter- whether adobe or fired bricks depending on their capacity to produce counterpart. Five families preferred adobe shelters to fired bricks. Some extremely vulnerable beneficiaries preferred adobe, while others of the same category preferred fired bricks. The adobe shelters were not plastered, and have seen several holes. No construction training provided. No other projects seen in the village location visited.

21. Shadi Khala village

Akhwat citizens' community board signed a PKR7.7 million Agreement with UN-Habitat in this village. The Chairman who belongs to the dominant tribal group enlisted 25 members from another village to his CCB. None of the members of this CCB was reported to be from the village. Akhwat

¹⁴⁸ Met with a few members of the community-based organisation, led by Hussain Bux, General Secretary.

¹⁴⁹ Interview with Abdul Rashid, Chairman, Md Ibrahim, Secretary and some members.

¹⁵⁰ Interview with Kalimullah, Chairman with a few members.

CCB received 80 per cent of its funds but not fully implemented. There was a reported collusion between a project staff (sub-engineer) and vendor resulting in an embezzlement of PKR1.2 million (a budget of roughly 30 shelters). There were also reported cases that CCB took PKR3,000 for every beneficiary. The village was enraged by the lack of follow-up action from UN-Habitat. They said UN-Habitat had previously met with the beneficiaries and promised to return and sort the problem out but nobody ever returned. A case has been reported to be under litigation.

The Evaluation Team was initially thought by the village residents to 'solve' the problem, but had to rush up to leave the angry crowd. Police had to pacify some of the community members during the meeting. UN-Habitat partner CCB, Akhwat CCB was not available for the visit, despite efforts made by Muzaffargarh staff.

22. *Walwat village*

UN-Habitat entered into an Agreement with Al-Haider Welfare Society to construct 67 shelters and Friends CCB to construct 47 shelters. Both organizations also implement Agreements in other Union Councils. Construction of a community center was on-going. Mr. Malik Qadeem, officer of Friends supervises the construction said that the Center will be handed over to the community once complete, and a community group will be trained to manage. There will be a system for maintenance. Construction appears to be smooth.

There was also a 6-ft diameter biogas model constructed with a budget of PKR 29,000. The model project that runs for 15-20 minutes full pressure for an hour or two hours at the peak of decomposition was in use by four families. Biogas is an old energy-recycling technology already in use in other districts. Fresh animal dung (buffalo dung is more potent than cow dung) mixed with water is thrown into a chamber and through decomposition produces methane gas that is piped directly into a stove in the kitchen. In a click on the stove the gas burns and can be used for cooking. The by-product is "polished" odor-free dung that can be deposited into a pit and left to decompose into manure. Once decompose, the manure can be used as fertilizer. As a result of the demonstration, two other biogas units have been put up in the village through private initiatives.

The model project is an excellent initiative to promote efficient use of energy. Biogas is animal-dependent, four to six large animals (buffalo or cow) are required to maintain the amount of gas to run the system. The system also requires an initial investment of PKR45,000 (for the model project, UN-Habitat paid PKR29,000 and beneficiary PKR16,000) invested. It would require a major effort to organize and resource the vulnerable and extremely vulnerable beneficiaries to put up a biogas where their priority is more basic. Proper assessment is required to ascertain the value of this project to the vulnerable and extremely vulnerable populations on recovery.

Jaffarabad/Nazeerabad districts, Baluchistan

23. *Abdul Majeed Sub-Village*

The entire village has 113 households. There were 13 shelter beneficiaries in Abdul Majeed Sub-village. UN-Habitat cost per shelter was PKR39,500 without latrine and community share, and PKR48,000 shelter with latrine and without community share. Beneficiary of shelter plus latrine put up PKR62,000 as community share.

Shelters were made of cement blocks constructed on site using local materials which were cheaper. The village was inundated by up to six feet. Shelters and latrines submerged and hit with rains were all damaged but did not collapse. Beneficiaries could not immediately estimate the cost of damage.

Beneficiaries were happy of the support of UN-Habitat which built stronger shelters, than mud houses they previously have.

Abdul Majeed residents mentioned the lack of potable water as their second major problem. Hand pumps were contaminated during the flood. Residents drink water from the farm and irrigation canal. As part of disaster risk reduction measure residents asked assistance to find ways to meet supply for drinking water during flood emergencies.

Habitat constructed water system but residents could not fully use it because water was contaminated. Residents expressed the need for water filter. Water-borne diseases are prevalent.

24. *ZamanTareem village*

UN-Habitat worked with the community-based organisation Peeran Peer SWO in Zaman Tareem No other organization assisted the village. UN-Habitat

targeted to assist 70 households in the village—seven extremely vulnerable and 63 vulnerable beneficiaries.

Habitat constructed 70 shelters, 70 latrines with septic tanks (septic tanks were not used as residents prefer the open field), four hand pumps, a water pond and 1,300 running brick of pavement. All submerged and damaged. Water pond contaminated.

Flood water was about five feet during the 2010 and 2012 flood. UN-Habitat shelters were built from mud and bricks. Beneficiaries suggested that due to the recurrence of flood, the foundation of their shelters should be higher. One member suggested: "Our house should be five feet high and foundations should be raised to three to four feet, which suggest the need to look for better shelter technologies that can better adapt to floods.

Community also added: "We have missed rice planting (1 June - 31 August), about to miss wheat planting (15 November - 31 December—will get loan from landlord until the next harvesting, and indebted for three years."

During the visit, most part of the village was coming out of water.

25. *Munchi Mari village*

UN-Habitat signed an Agreement with community-based organisation Al Khair Social Welfare Organization (AKSWO) that was registered in 2010.

The village has a history of inundation: flooded in 1979 by up to five feet, all mud houses collapsed. Flood repeated in 2010 and 2012, brought severe damage to all infrastructures that used mud. UN-Habitat shelters were made of mud collapsed completely during the flood. But a latrine made of fire brick with cement masonry stood the long period of inundation.¹⁵¹ A beneficiary expressed being more indebted because of the counterpart he was required to provide to avail of UN-Habitat shelter. This village regretted from participating in UN-Habitat shelter while he accepts responsibility for accepting the UN-Habitat shelter.

UN-Habitat installed two hand pumps, which were underwater for long period and became contaminated and un-used. Community

understood this problem due to the height of flood and long duration of inundation.

Residents voiced their needs for water filtration and disaster preparedness training.

Residents offered an advice: "design of shelters should be adapted to location. Locations with long periods of inundation should use cement block/cement masonry with water filtration facility."

26. *Safar Jattak village*

UN-Habitat worked with community-based organisation Ghareeb Dost Social Welfare Organization (Jaffar Ali was General Secretary). 52 families out of 70 were beneficiaries of shelter. This village was in-need to shelter and water. UN-Habitat shelters were made of fired bricks with cement masonry. The village was located in an undulating terrain, with some locations exposed to long periods of inundation while other portions came out from water quickly. Several shelters showed damage (some cracks and warps) on walls as a result of inundation.

Whenever possible, most residents chose to stay within their village or within proximity to their homes during the flood.

The village has a history of flood: first flood in 70's, second in 2010 and 3rd in 2012. All inundated and damaged houses. Village strongly recommended raising floor level to five feet and widening the base by at least three feet to withstand the impact of inundation.

Only one hand pump, located on a higher ground towards the fringe of the village provides drinking water for the entire village. Accessibility to potable water from most part of the population, especially among women and children was a major problem.

Community complained about suffering from various forms of water-borne diseases- such as malaria and stomach problems. Water pond established by Habitat was not in use due to contamination. Residents also built tents on the ridge of the water pond.

No disaster risk reduction training provided.

¹⁵¹ Photo available by evaluator.

Charsadda district, Khyber Pakhtunkhwa

27. Boobak village

UN-Habitat worked with Boobak citizens' community board, established in 1996 with 31 members, and a women's group connected to the CCB with nine members, all women. The head of women's group is sister in-law of the Boobak CCB chairman. The women's sub-community-based organisation works mainly on sanitation. The women's organisation underwent vocational training. No IDP mentioned in the membership.

The chairman/landlord owns 60 jeribs (18 acres) and houses a few IDP families.

The village has approx. 1,000 families (90 per cent tenants/laborers living in landlords' lands; 200-300 families are major land-owners). Tenants were allowed to stay on landlord lands as long as landlord allows. It was reported that 90 per cent of beneficiaries 'own' the location of their homes, although not such evidence of ownership could be presented.

UN-Habitat constructed 61 shelters in response to 2010 floods, including street pavement, drains, water pumps, and shelters. Materials provided to beneficiaries as part of standard shelter package were: 28-30 pcs of wood, one girder, one metal door and one steel window. All shelters were in use.

The Norwegian Refugee Council constructed seven shelters with funds from UNHCR. It was reported that their costs were a lot higher than UN-Habitat's.

About 50-42 Extremely Vulnerable and 100-150 Vulnerable were not included because they have not return to the village during the intake period. Their houses were totally destroyed.

28. Hayat Abad village

Habitat worked with CBO Shaheen Welfare Society (SWS), registered in 1988, and had 96 members. About 2,000-3,000 families resides in the village; 60-70 per cent were estimated to be extremely vulnerable, 20 per cent vulnerable and 10 per cent landlord who were extremely influential and controls almost all decision making in the village. Of the working population, 50 per cent were daily

wage earners earning PKR 160 per day (when work is available), 20 per cent who depend only on income from farming of landlords lands.¹⁵²

Other organizations provided hand pumps (SPO, and NGO) and conducted health and hygiene awareness campaign and campaign against drug addiction (Paiman NGO). SWS conducted health and hygiene and drug awareness campaign.

UN-Habitat started the work seven months after the flood, at that time most of the residents already constructed their houses. UN-Habitat constructed 108 shelters (52 for extremely vulnerable and 56 for vulnerable), paved 386 running feet of village road.

Shelter construction appears to be more solid than those in Sindh. All the shelters were in use and beneficiaries were happy.

Korean International Cooperation Agency (KOICA)

Swat District¹⁵³, Khyber Pakhtunkhwa

29. Dadara village

UN-Habitat rehabilitated infrastructure- irrigation channels, hand pumps in Khatan Village through Female CBO-Aghaz Welfare Organization and Jamal Garhi.

Women have taken an initiative to start income generating activities.

There was total lack of technical supervision and input. An example was the washing pad and community bathrooms in Dadara, where people come to wash with spring water known for curing skin problems. The area was littered with garbage with dust bin empty and wet frontal area with slippery mud. A PCC for this small area could have made a difference but missed out due to less technical supervision.

Similarly, technical assessment was not done for each area. A link road with water coming from drains over it. A small drain could have made a difference.

¹⁵² Farmers of landlords were entitled a share of 50:50, tenant and lord respectively. Landlords allocate the farmers with 10,000-20,000 jeribs.

¹⁵³ Fauzia and Nazir visited the Swat and FATA.

Dustbins and garbage together but the dustbin was empty. In KOICA project in Swat this issue was common to almost all places.

The community-based organisation recognized the fact that the storm water from the link road was flowing onto the main road and have already taken measures to rectify the problem.

The overall quality of concreting of pavement and drains was excellent.

30. *Dherai Baba Aligrama village*

Village shows some good examples of quality community infrastructure, street pavement and sewage canal.

31. *Sijband and Kanju villages*

UN-Habitat worked with the community-based organisation Da Znanawo Tolana in Sijband which was awarded contracts to implement 1,520 running feet of street pavement, and one drinking water supply.

Infrastructure implemented in this village was of good quality and well-maintained.

There was also a Girls School completely damaged and rebuilt with Organization of Islamic Conference (OIC) that was reported to be a good model for earthquake resistant design which could be a model.

Sijbion Village community-based organisation Da Zananawo Tolamona a women-led community-based organisation operates a vocational training centre. A centre for women run by a women, designed as a "green building" energy efficient walls, double glazing and using solar energy. The community-based organisation has completed a number of excellent street infrastructure and water supply scheme.

Rehabilitation of Community Infrastructure and Facilities Project (funded by KOICA)

Mardan District, Khyber Pakhtunkhwa

32. *Ghundo Haji Abad village and Ghundo Khundo Kas sub-village*

Guando Haji Abad and Ghundo Khundo Kas are adjoining locations. Nazim Saeed Ahmad was Chairman of community-based organisation Shamoza Welfare Organization, a landlord,

covering both villages. UN-Habitat provided temporary shelter, hand pumps, hygiene kits to the IDPs in the two locations. It constructed 230 running-feet drain, 3,300 running-feet street pavement, and 1,800 running-feet irrigation channel. Hand-pumps (Afrodev type) planted in the landlord's property were in good working condition. The irrigation channel repaired was on a landlord's property.

Ghundo Khundo Kas has 600 acres with 60 families, 10 acres of which belong to the benevolent landlord and community-based organisation chairman.

IDPs from SWAT moved to Mardan in 2009 due to military counter-insurgency operations. IDPs mentioned that their houses were demolished during the fighting. After wandering into several places the IDPs eventually settled in a Mosque in Mardan district where they received food and basic supplies from the community and some aid agencies.

Thereafter the local Nazim (Town Mayor), a landlord picked about 50 of them (IDPs) and provided space in his land to build shelter. The rest IDPs gradually returned to their villages or moved to other places over the course of the years. Five families remained in his land since 2009, presumably found a job in the city and with the landlord. They also appear to come from the most remote location of Swat valley.

The landlord mobilized the IDPs for various farm and household activities to get food. They wanted to return to their village but lack of financial support to start the needed rebuilding prohibits them from going back. "It takes 5 hours mainly by walking to reach our village." One IDP exclaimed. The other IDP said, "We need transport facilities, shelter and resources to start rebuilding our land."

IDPs reported that their houses were totally destroyed, and part of their lands eroded. They needed assistance to start their lives to clear up their farms overgrown by trees and big weeds and remove the rocks dumped by erosion. No organization was assisting their home-village, nor had been approached for a support should they decide to return to their village of origins.

The landlord's influence and control in the village and the community-based organisation was highly noticed, and much more of his control over decisions of activities on his land and two villages

under his leadership as chairman. The landlord was happy of the support UN-Habitat had provided, and the IDPs appeared to be happy of the support they received from the landlord and Habitat.

Almost all IDPs left the village in 2009, UN-Habitat work started in March 2010.

33. *Rehman Abad village*

Rehman village has 70 households and hosted 400 IDPs from the KPK and FATA during the last quarter of 2009 as a result of heavy military counter-insurgency operations in Swat and Bunner. Most of the IDPs in Rehman villages have returned to Bunner and Swat in the middle of 2010 following government's clearance. Other IDPs living in other places could only return about 12 to 18 months. Seven IDPs remained in Rehman village presumed to have found jobs in the area.

UN-Habitat partnered with a community-based organisation and a women-ran-and-managed citizens' community board.

The CBO chairman hosted 4 IDP families from Swat in his 3-storey house for over six months. WFP provided monthly food rations (wheat, *dahl*, cooking oil and sugar) to the IDPs while UN-Habitat installed a hand pump (Dakar model, costing PKR54,000) in the Chairman's compound, a garbage box, concreted a sewage canal (including cover), built latrine and provided transitional shelters.

The hand pump and latrine shown to the team were in good working condition. The hand-pump and latrines were in the compound of the community-based organisation and were in good working condition. The chairman was happy of the projects provided by UN-Habitat.

The women citizens' community board (Aqaz Welfare Organization) was organized and registered in 2010 with UN-Habitat's support. The Women citizens' community board chair is wife of the community-based organisation chairman. The chairman allowed the formation of women citizens' community board because he wanted to address the needs of women IDPs and avail of project funds.

The women citizens' community board obtained a grant of PKR95,566 from UN-Habitat to organize vocational training and

start income generating activities that included making handicrafts, jewelry and makeup boxes, and shoes. The women' board also purchased cattle for production of milk for sale.

The evaluation team could not verify a record of the activities and accomplishment of activities supported by the Project. The community-based organisation record of activities was largely incomplete.

34. *Arakh Palo village*

UN-Habitat worked with Ittifaq, a women-only community-based organisation operating in Jamal Ghari UC with focused activities in Arakh Palo village. Ittifaq was formed and registered with district authorities with Habitat's support.

On this village, UN-Habitat installed three new hand pumps and made concrete 3,080 running-feet of the village's street pavement. UNHCR through SRSP, a local NGO constructed permanent shelter in 2009/2010 in coordination with the army and installed hand pumps. WFP and UNHCR provided non-food items for a year.

Ms Bacha Khan, the chairwoman of the community-based organisation recalled about 20 IDP families from Swat that moved to the village for more than a year past. Following government 'green light' for IDP return in July 2008/9 most IDP families have returned to Swat within the same year until mid-2010. Four remaining IDP families from Otror, Gujar Gabral, Swat remained, as their house (in their village of origin) were completely destroyed and their farms completely overgrown. They expressed the need for financial support to restore their farm and house. No one has helped them to return so far.

UN-Habitat project started in March 2011. During which time, almost all IDPs have already left the village.

Federally Administered Tribal Areas (FATA)

Bajaur Agency

35-36. Chingarho and BalamKhar villages

The villages show exemplary quality of construction. Communities and community-based organisations were very cooperative and honest, according to UN-Habitat team. Irrigation channels were very useful in promoting productivity in a very poor

area, a washing pad facilitating female especially, link road never thought before by the people to be built with such a quality, stairs and culverts making access easier and thus making life easier for the common masses of conflict ravaged area.

People are now government demanding to build a girls school, not possible in the past. The development in CI brought with itself a change of minds and hearts. A village resident named Dooshamjan said with tears in his eyes, "the stairs to my house saved my mother's life as I easily brought her down when she had heart attack last month in late night. What else can be more beneficial for us than these?"

In Bajaur, female member of communities were not involved in CI schemes but it was understandable looking at the peculiar circumstances that for first time a UN organization intervened in Bajaur for CI schemes. There were signs of development of thoughts coming in with the arrival of infrastructure development. However, a rare and notable exception was a female community-

based organisation, Da Zananawo Tolana (a group of Women) in Sijbunrh Swat with a local school teacher GulKhandana heading that. UN-Habitat built the only vocational training centre (VTC) for the same community with the same lady being the teacher in the VTC as well. The VTC was built with a very realistic budget of PKR 2.4 million that included energy efficient walls, roofs and double pane glazed windows, solar energy panels and system to provide for the energy needs of the centre as well as rain water harvesting system to be followed by the communities living nearby. The VTC was representative of the strong will power the teacher displayed and UN-Habitat support to the brave woman with whom her family was even at odds, had a very good impression on the overall scene of the area. The female headed the community-based organisation gave priority to those CI schemes which had direct impact on the lives of the widows and poor women of the village, which was again a very impressive thing to note. This is to be commended.

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Transitional Shelter Provision for Baluchistan
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Water and Sanitation Improvements in Informal
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Disaster Risk Management*Sustainable Urbanization and Sustainable Energy
Construction*

Shelter Assistance to Returnees in
Conflict-affected Areas in NWFP

Improving Living conditions of IDPs out
off camps through WASH Interventions

Facilitating Access to Safer Land for Earthquake
Victims

Strengthening Post-Earthquake Reconstruction

Joint UN Post-Disaster Assessment Mechanisms

Emergency Shelter Kit Procurement and
Distribution

Post-Flood Information Management and
Coordination

Facilitating Access to Land for Earthquake
Affected Families

Technical and Training Support for the Earthquake
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ANNEX VII. TECHNICAL REPORT

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This section contains supplementary information about UN-Habitat's shelter and community infrastructure projects based on technical assessments and observations in the field.

Shelter and housing

UN-Habitat used seven shelter typologies to suit various seismic zones and flood conditions which are technically described in the following sections. Also included are photographs of shelters, descriptions of construction problems, and locations.

1. Adobe house

(size 14 feet x 14 feet, *katcha*)

Adobe houses are generally made of sun-dried bricks composed of stiff clay, free from stones, lime, and other impurities, with sand to make the clay stiff, if required (Figure 1-4). The foundation is made from fired brick, stone, or block masonry with cement and sand mortar up to floor level with a DPC (Damp Proof Course) comprising a 2-inch thick 1:2:4 concrete band topped with a layer of bitumen and a plastic sheet. The depth of the foundation varies from 4 feet in the case of soft or filled soil to 2 feet with hard soil.

A platform is built to raise the interior flooring above the ground level and extends 3 feet outside the exterior wall edge to provide stability and protection for the house. The plinth level (which is the finished floor level) is built by further raising the platform by 1.5 feet. The walls are made of sun-dried brick masonry laid with mud mortar above the foundation level. Cement pointing with 1:4 cement and sand (*c/s*) is specified from the foundation level up to flood level (based on standard construction practice in the flooded area) to ensure that the walls are resistant to flooding and provide additional protection. In case *c/s* is not affordable, waterproof mud plaster made with bitumen mixed with mud, straw and sand is used. (Evaluator note: There are questions about the effectiveness of bitumen for waterproofing. Lime seems more effective). For additional protection 1:4 *c/s* plaster is also recommended on the external and internal face of the footings up to the flood level of the walls.

The roof is built with 4-inch wide steel girders placed at a spacing of 5 feet across the wall. The girders rest on a block of concrete /fired brick/wood in order to distribute the load. The girder is sloped to facilitate water drainage from the roof (PSFRP SOP requires 2% slope for *katcha* houses¹). The girder supports bamboo poles laid approximately 1 foot apart. A layer of reeds tied together with string to form a mat (*chik*) is laid on top of the bamboo. A layer of plastic sheet is laid on top of the *chik* which is then topped with a layer of timber branches topped again with a layer of plastic. Four-inches of compacted mud is laid on top of the plastic which is finished with a 1-inch layer of mud plaster.

Constructed in: **Sindh and Baluchistan**

Problems and observations:

The soil used to make the adobe bricks and the mud mortar must contain clay, as it provides strength to the dry materials. Unfortunately, clay shrinks during drying; therefore an excessive amount of clay will cause cracking of the bricks and mortar due to shrinkage, and weaken the adobe masonry. Straw, wheat husk, and to a lesser extent, coarse sand can be used as additives to control cracking and improve the strength of the adobe masonry. (Alternatively, DFID is using lime-infused mud). This typology is not appropriate in locations receiving heavy downpours, or in flooded areas, unless finished with thick cement plastering, and with a roof gutter or overhang to control the flow of water and to protect the adobe brick from exposure to the elements. Photos taken from Jacobabad district, Sindh province (under PSFRP project coverage).



Figure 1: A good adobe house

¹ Standard Operating Procedures, Pakistan Settlements Flood Recovery Project, UN-Habitat 2011 page 2.



Figure 2: Adobe house, eroded walls



Figure 3: Adobe house destroyed by heavy rain



Figure 4: Adobe house dissolved

Poor advice and an unwillingness to learn from the community can compound disaster.

A beneficiary in Baluchistan was asked to choose between cheap housing material made of mud and a high-cost model made of fired bricks and cement. Not wanting to go into debt for years, he chose the first option. The flood of 2012 rose over 5 feet and the house dissolved.

(photo taken in Baluchistan)

2. Fired brick/stone masonry with mud mortar (shelter size 15 feet x15 feet, katcha)

The foundation is made from fired brick, stone, or block masonry with cement and sand mortar up to floor level with a DPC comprising a 2-inch thick 1:2:4 concrete band, topped with a layer of bitumen and a plastic sheet. The depth of the foundation varies from 4 feet in the case of soft or filled soil to 2 feet with hard soil (Figure 5).

A platform is built to raise the interior flooring above the ground level and extends 3 feet from the exterior wall edge to provide stability and protection for the house. The plinth level is built by further raising the platform by 1.5 feet.

The walls are made of fired brick or stone masonry with mud mortar. Cement pointing with 1:4 cement and sand (c/s) is specified from the foundation level up to the flood level (2-8 feet depending on location) to ensure that the walls are resistant to flooding. In case c/s is not affordable, waterproof mud plaster made with bitumen mixed with mud, straw and sand is used. For additional protection 1:4 c/s plaster is also recommended on the external and internal face of the footings up to the flood level of the walls.

The roof is built with 4-inch wide steel girders placed at a spacing of 5 feet across the wall. The girders rest on a block of concrete /fired brick/wood in order to distribute the load. The girder is sloped to facilitate water drainage from the roof. The girder supports bamboo poles laid approximately 1 foot apart. A layer of reeds tied together with string to form a mat is laid on top of the bamboo. A layer of plastic sheet is laid on top of the *chik* which is then topped with a layer of timber branches topped again with a layer of plastic. Four inches of compacted mud are laid on top of the plastic, which is finished with a 1-inch layer of mud plaster.

In order to cater to seismic resistance in KP, options for the insertion of timber or RCC bands at the plinth and roof level are taken into consideration.

An alternative specification is to use brick tile 1.5 inches x 4.5 inches x 9 inches laid on steel T-sections

which are supported on the girders. A plastic sheet is laid on the brick tiles, topped with 2-4 inches mud for insulation, and finished in mud plaster.

Constructed in: Sindh

Problems and observations:

Most girders were laid on the wall above a window, a door or some other opening which cannot sustain the weight of the roof and can cause the wall to collapse. Rough timber logs were used instead of bamboo, increasing the weight of the roof, or undersized bamboo poles (less than 3 inches in diameter) were used. Loose bricks were found at the top of the wall, around the girder. The 3-inch PCC pad to support the girder was not provided, which led to cracks in the wall when wet.

Two houses UN-Habitat constructed for 'extremely vulnerable' households with sun-dried bricks with



Figure 5: Katcha house, back wall collapsed

Two houses, one fired brick with cement mortar and one fired brick with mud mortar were built side by side by two brothers.

Rain hit the houses and the back wall of the house made with mud mortar collapsed while the other house withstood the rain and flood water with no damage at all.

The owner understood that had he invested PKR2,500 to 3,000 more for cement mortar, he could have saved not only the PKR39,500 provided by UN-Habitat but also the PKR30,000 he spent from his own pocket.

mud mortar (Figure 6) and fired bricks and with mortar (Figure 7). Both houses collapsed after the 2011 flood and rain.



Figure 6: Collapsed house of sun-dried bricks with mud mortar in foreground



Figure 7: Collapsed house of fired bricks with mud mortar



Figure 8: Poor workmanship, no PCC pads to support the girder

A 3-inch thick PCC pad beneath the girder was missing. The issue can be serious for katcha houses where the girder could act like a pointed load.

Construction issues in Muhammad Ibrahim Burriro and Lal Bhatti, Baggan Burrero, Jacobabad, Sindh (PSFRP coverage)(Figure 8 -14).



Figure 9: Improper location of girder

Note bulging area in the wall.



Figure 10: Need for PCC pads under roof drainage pipes



Figure 11: Misplaced girder led to collapse of wall



Figure 12: Poor quality window



Figure 13: Poor quality door



Figure 14: Walls not plastered, misplaced girder



Figure 15: Bitumen and pointing in katcha

Use of bitumen and pointing were rarely seen to be used in katcha houses and the communities were not well trained or informed on how to use them for added waterproofing (Figure 15)

3. Fired brick/cement block/stone masonry with cement mortar (size 15 feet x 15 feet, pacca)

The foundation is made from fired brick, stone, or block masonry with cement and sand mortar up to floor level with a DPC comprising a 2-inch thick 1:2:4 concrete band, topped with a layer of bitumen and a plastic sheet. The depth of the foundation varies from 4 feet in the case of soft or filled soil to 2 feet with hard soil.

A platform is built to raise the interior flooring above the ground level and extends 3 feet from the exterior wall edge to provide stability and protection for the house. The plinth level is built by further raising the platform by 1.5 feet.

The walls are made of fired brick, cement block or stone in 1:4 cement mortar. In order to cater to seismic resistance, timber or RCC bands can be added at the plinth level and roof level.

The roof is built with 4-inch wide steel girders placed at a spacing of 5 feet across the wall. The girders rest on a block of concrete /fired brick/wood in order to distribute the load. The girder is sloped to facilitate water drainage from the roof. The girder supports bamboo poles laid approximately 1 foot apart.

A layer of reeds tied together with string to form a mat is laid on top of the bamboo. A layer of plastic sheet is laid on top of the *chik* which is then topped with a layer of timber branches topped again with a layer of plastic. Four inches of compacted mud are laid on top of the plastic which is finished with a 1-inch layer of mud plaster (Figure 16 -18).

Constructed in: Sindh and Punjab

Problems and Observations: As above.

Photos taken from Sindh province (PSFRP project)



Figure16: Strong foundation of house



Figure17: Stone foundation



Figure18: Good quality fired-brick shelter

House made of fired brick in cement mortar (pacca)

Built with PSFRP support, in Karim Dad Lund, Sindh, there were many cases of funds going to wealthy people, instead of to vulnerable households (Figure 19-20).



Figure19: House of a wealthy beneficiary



Figure 20: House of a wealthy beneficiary Karim Dad Lund, Sindh

4. Loh-kat - wattle and daub (standard size 18 feet x 12 feet)

The foundation is made up of 4-inch diameter timber or bamboo poles inserted in 1-foot deep holes dug at 3-foot intervals in the soil. The timber/bamboo poles are embedded in 1:4:8 concrete poured in the holes (Figure 21).

The structure stands on a platform of compacted earth varying from 6 inches to 18 inches above the surrounding ground to protect the structure from rainwater. A platform is built to raise the interior flooring above ground level and extends 3 feet from the exterior wall edge to provide stability and protection for the house. The plinth level (the finished floor level) is built up by further raising the platform by 1.5 feet.

Walls are made up of timber/bamboo frame with an infill of twigs and finished in mud plaster.

Roofing is made from bamboo poles tied to the walls with rope. Bamboo poles or wood purlins are placed approximately one foot apart upon which is laid a reed mat (chic) or dried grass, topped with a layer of plastic sheet, and then a layer of grass and finished in mud plaster (Figure 22-25).



Figure 21: Loh-kat house interior

Constructed in: **Tando Muhammad Khan (Thatta District)**

Problems/observations:

The quality of shelters in Tando Muhammad Khan was good, except for some technical flaws in the roof design. Roof frames were spaced too far apart, causing the plastic sheet to sag and collect water. Though transitional shelters, they are still used by beneficiaries.

Photos taken from Tando Muhammad Khan, Sindh province (under CERF project coverage)



Figure 22: The Loh-kat house



Figure 23: Roof and window detail



Figure 24: Sagging roof problem



Figure 25: Roof frames too far apart

5. Cob/mud earth construction

(size 14 feet x 14 feet, katcha)

The foundation is made from fired brick, stone, or block masonry with cement and sand mortar up to floor level with a DPC comprising a 2-inch thick 1:2:4 concrete band, topped with a layer of bitumen and a plastic sheet. The depth of the foundation varies from 4 feet in the case of soft or filled soil to 2 feet with hard soil (Figure 26).

A platform is built to raise the interior flooring above the ground level and extends 3 feet from the exterior wall edge to provide stability and protection for the house. The plinth level (which is the finished floor level) is built by further raising the platform by 1.5 feet. (Figure 27).

Mud mixed with straw or any other binder (cob) is roughly piled and then molded into a wall segment between 12 to 18-inches long, and about 6-inches thick. These are laid side-by-side and pressed together to let dry and then another row of cob is placed on top. When three or four courses have been laid, one above the other, the sides are smoothed over so that there are no holes or cracks. Evaluator note: DFID is funding houses built with lime infused into the mud to make it waterproof and durable for 30 years.



Figure 26: Cob piled mud house

Many communities use this "cob" approach to building walls. A layer is added each day and allowed to dry, as show in picture. Lime has been included in the mix of the mortar used to build this wall. It is considered quicker than making bricks and placing them in rows.



Figure 27: The "toe" foundation

Source: <http://www.slideshare.net/MagnusMurray/update-of-DFID-funded-shelters-oct-2012>

6. Bhatar (timber with reinforced stone masonry (maximum width of room: 12 feet))

Vernacular "Bhatar" construction, made from wood and stone masonry, with very good seismic resistance, is used in KP and FATA.

The foundation is made of dry stone up to floor level. The depth of the foundation varies from 4 feet in the case of soft or filled soil to 2 feet in the case of hard soil.

A platform is built to raise the interior flooring above ground level and extends 3 feet from the exterior wall edge to provide stability and protection for the house. The plinth level is built by further raising the platform by 1.5 feet.

The walls are laid in dry stone approximately 18 inches to 24 inches thick and reinforced with 2-inch x 4-inch timber planks on the internal and external faces of the stone wall. This makes the structure seismically resistant.

The roof is built with 4-inch wide steel girders placed at a spacing of 5 feet across the wall. The girders rest on a block of concrete /fired brick/wood in order to distribute the load. The girder is sloped to facilitate water drainage from the roof. The girder supports bamboo poles laid approximately 1 foot apart. A layer of reeds tied together with string to form a mat is laid on top of the bamboo. A layer of plastic sheet is laid on top of the *chik*, which is then topped with a layer of timber branches topped again with a layer of plastic. Four inches of compacted mud is laid on top of the plastic, and finished with a 1-inch layer of mud plaster (Figure 28-29).

Constructed in: some northern parts of KP and FATA.

Problems and Observations: Can be very expensive.

Photos taken from: Bajaur, FATA



Figure 28: Bhatar house, on-going Construction



Figure 29: Highly seismic-resistant Bhatar house in Bajaur, FATA

7. Dhajji (a timber frame house with mud and stone infill, size 15 feet x15 feet)

Dhajji is a traditional shelter technology used in high-altitude areas of northern Pakistan and Azad Jammu and Kashmir.

The foundation is made of dry stone up to floor level. The depth of the foundation varies from 4-feet deep in the case of soft or filled soil to 2-feet deep in the case of hard soil.

A platform may be built up around the room and the finished floor level is 6" above the platform.

The walls are made of timber frame sections approximately 4 inches thick, braced vertically, horizontally, and diagonally with mud and stone infill. The walls are 4 inches thick and are finished with mud plaster on the interior and exterior.

The roof is made of a timber truss with corrugated galvanized iron sheets to keep the roofing light, ensuring risk reduction in case of an earthquake (Figure 30 - 32).

Constructed in: Northern KP and AJK.

Problems and Observations: Can be very expensive.

Photos taken: AJK.



Figure 30: Dhajji house in AJK

This design is used mainly in the high-altitude regions of northern Pakistan, and is known for its seismic resistance.



Figure 31: Women plastering exterior

Photos courtesy of: Ms Maggie Stephenson



Figure 32: Non-compliant Dhajji house in AJK

This house was made compliant by better strapping with an additional timber plate face nailed on.

Water, Sanitation and Hygiene

Latrines and septic tanks

Most latrines are not fully constructed or maintained. Eighty-percent of latrines constructed under PSFRP were unused and in poor condition. One of the main reasons is the lack of water supply, which is needed for this type of latrine. Also, beneficiaries are not used to latrines and they are not a beneficiary priority. They used the brick meant for the latrines to construct or improve their house. In Karim Dad Lund, there were instances of the community refusing to provide their share for latrine construction. In KP however, due to adequate water supply and private spaces provided for women, the community used latrines.

Photos taken from Karim Dad Lund, Thatta, CERF Project area (Figure 33-36).



Figure 33: Latrine not maintained



Figure 34: Unfinished septic tank and latrine



Figure 35: Latrine used for storage of household items



Figure 36: Due to a lack of water, latrines in Sindh wind up as storage rooms.

Handpumps

Common types of hand pumps in PSFRP, KOICA and CERF project areas (Figure 37-41).



Figure 37: Well-built and maintained latrine in Sindh



Figure 38: A septic tank connected to a latrine



Figure 39: Hand pump in Sindh destroyed by groundwater salt

A one-year old hand pump in rapid deterioration (PSFRP project area)



Figure 40: Afridev hand pump used in KP
A good quality hand pump (KOICA project area)



Figure 41: Washing pad and community bathroom was muddy and slippery. A PCC pad should have been placed in front.

Note litter. Although there is a yellow garbage bin in the background, placed in many sites by KOICA, they were not used. No waste removal plan was included.

Location: Dadara, Swat

Community Infrastructure

Solar lights were effectively used by the community in the house and outdoors (Figure 42-44). Energy initiatives in the CERF Project area.



Figure 42: Solar-powered lantern



Figure 43: Solar-power lights the house.



Figure 44: Women's centre, repaired by UN-Habitat and run by women's CBO.

It also has solar panels.

Examples of community infrastructure (Figure 45-50).



Figure 45: Village link road flooded due to lack of drain



Figure 46: Village road and stairs, renovated in Swat.



Figure 47: Village drain and pavement not maintained in a PSFRP project area

Location : **James Masih (Tando M Khan), Sindh**



Figure 48: Community-led repair of village interior road in Bajaur Agency



Figure 49: A seismic-resistant women's centre



Figure 50. Wetland. The villagers and the CBO had no idea of its utility and how it can be maintained, as there is little water from upstream. According to the UN-Habitat manual on Community Infrastructure, a wetland is used to filter solid human waste and is planted with greenery. However, it is not clear if this PKR5 million project was built by UN-Habitat.

Location: Gul M. Gandhro.



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