

Disaster Risk Reduction in Pakistan: The Contribution of DEC Member Agencies, 2010-2012



Villagers discuss flood preparedness plans in, Sindh Province.

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EXECUTIVE SUMMARY

The Pakistan floods 2010 was one of the biggest disasters ever with almost 20 million people affected. Besides the slow response, the absence of comprehensive DRR and preparedness mechanisms in the country was also a major factor that caused the large-scale destruction. The DEC launched an appeal within the UK on August 2, 2010 which mobilized more than GBP 70 million for relief and recovery work. Besides the direct expenditure on DRR activities, expenditures on other sectors also contributed to DRR outcomes. In order to review the extent to which member agencies succeeded in enhancing community resilience, the DEC commissioned a research study in June 2012 to review the nature, strengths and weaknesses of the national DRR system in Pakistan, the extent to which DEC member agencies contributed to DRR outcomes through their program, advocacy and coordination work and the lessons and recommendations for increasing the effectiveness of DRR work in Pakistan. The study reviewed key government and agency documents, interviewed DEC member agency and partner staff and undertook focus group discussions with men, women and children in 7 communities in southern Sindh district.

The study reveals that while the government has instituted a comprehensive DRR governance system in Pakistan on paper, in reality the system suffers from a lack of political commitment, funding, skilled human resources, and coordination and suffers from fragmentation, and overlapping and unclear mandates among government agencies horizontally and vertically. The system is especially weak the local district levels where the bulk of implementation occurs. The national DRR system also focuses mainly on response and ignores other more sustainable and durable dimensions of DRR, such as prevention and mitigation which can address the root causes of disaster risk within the country, which because of its geographical diversity is vulnerable to a large range of physical hazards, such as floods, earthquakes, tsunamis, and cyclones. Government programs and policies often end up reducing people's resilience by increasing their exposure to physical hazards. The malpractices of local elites reduce people's access to resources and information and increase their exposure to physical hazards.

All fourteen DEC member agencies have included DRR programming in their work, either by mainstreaming DRR activities in other sectors or by having stand-alone DRR work in the form of community-level disaster risk management and preparedness work. Mainstreamed DRR work in the areas of water, sanitation, health, shelter and livelihoods have all enhanced community resilience to future disasters by providing stronger shelter, water and sanitation structures which can withstand floods better; and increasing people's assets and knowledge. CBDRM has helped increase people's resilience through community-based organizations developing contingency plans for dealing with disasters, developing linkages with external governmental and non-governmental stakeholders involved in preparedness and response activities and undertaking micro-mitigation work within communities. Agencies have also become better organized to coordinate their DRR work and undertake DRR-related advocacy through the establishment of a DRR Forum. However, coordination among NGOs at local level is low. There is little exchange of information, resources etc. at the low level and very limited attempts to develop broader and common perspectives on the vulnerability status of communities within districts. In addition,

DRR work is mainly being done by agencies as part of emergency work. CBDRM mostly focuses on avoidance and response and ignores DRR prevention and mitigation dimensions. The number of villages covered in a district is small and the involvement of women in preparedness work is low in some cases.

Lessons

Advocacy-related: The attention given by governments and the resources allocated to DRR work is determined by political factors and the quality of national governance. Thus, ensuring sufficient allocations for DRR require that NGOs enhance the priority given to DRR work by mobilizing public opinion in its favor and developing strategic coalitions across society

Coordination-related: Given the scale of vulnerability, individual agencies can play a more effective role if they pool their resources and coordinate more effectively, especially locally.

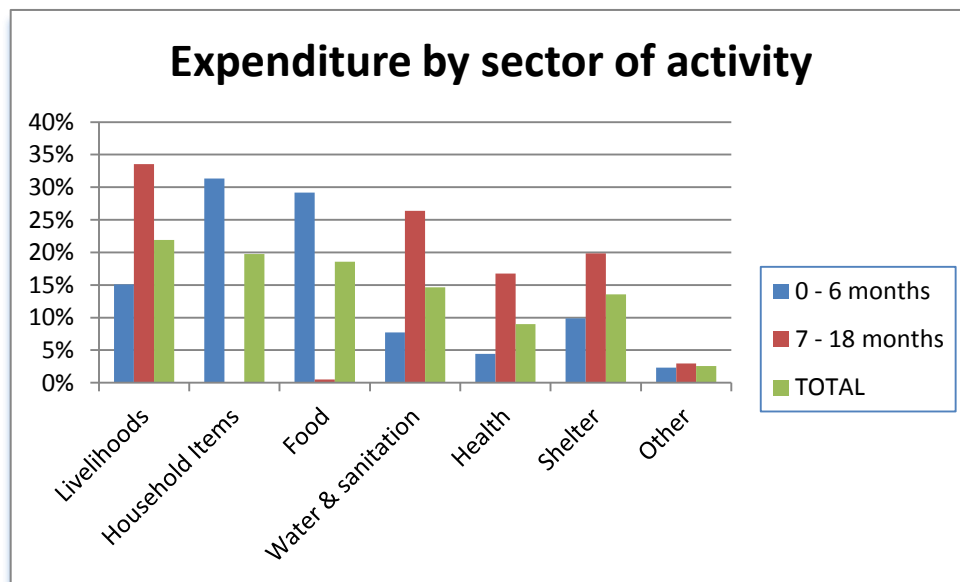
Program-related: i) Building resilience and strengthening DRR work requires long-term, on-going effort spread over more than 1-2 years; ii) While NGO CBDRM programs generally focus on contingency planning for avoidance and response, the most durable and sustainable form of DRR work relates to prevention and mitigation work; iii) Women are generally more vulnerable to disasters due to their immobility and low empowerment but often still possess greater skills and motivation for DRR work; iv) The village-level may not be sufficient for carrying out CBDRM work given the large number of highly vulnerable villages in Pakistan; v) Multi-sectoral DRR interventions increase resilience the most at community level.

Recommendations for DEC agencies: **1:** Enhance campaigning related to DRR through public communication and mass media work and by building strong coalitions within civil society and the private sector; **2:** Undertake policy and lobbying work collectively through the DRR Forum to encourage the development of a consolidated and rational DRR structure; **3:** Undertake policy and lobbying work collectively through the DRR Forum with the government to enhance the quality of hazard analysis, early warning, prevention and mitigation work and participatory environmental impact assessment of development projects; **4:** Lobby with donors to enhance their allocations for DRR work not only within their emergency funds but also long term development funds; **5.** Centralize DRR in sector selection decisions by enhancing coordination at the district levels among NGOs and with government departments to develop district level hazard and vulnerability analysis and address them systematically through jointly exhaustive geographical division of labor for DRR work; **6.** Pool resources to undertake mitigation work beyond the community level since the most serious vulnerabilities are created by structures outside the communities; **7.** Undertake CBDRM and DRR mainstreaming work not only as part of emergency projects but also as part of regular long term development work; **8.** Ensure that village DRR plans focus not only on contingency planning for avoidance and response but also prevention and mitigation; **9.** Ensure that women and other excluded groups are fully involved in CBDRM work and work to enhance their empowerment within communities; **10.** Develop strategies to increase the number of villages through CBDRM work

C HAPTER 1: INTRODUCTION

The Pakistan 2010 floods crisis began in July 2010 following heavy monsoon rains in the Khyber Pakhtunkhwa, Sindh, Punjab and Balochistan provinces. UNOCHA estimates that almost 2000 people were killed, over 1.7 million homes were destroyed and almost 18 million people were seriously affected, exceeding the combined total of individuals affected by the 2004 Indian Ocean tsunami, the 2005 Pakistan earthquake and the 2010 Haiti earthquake. The floods submerged 17 million acres (69,000 km²) of Pakistan's most fertile crop land, killed 200,000 heads of livestock and washed away massive amounts of grain. At the worst point, approximately 20% of Pakistan's total area was underwater. The country suffered extensive damage to crops and physical infrastructure. The total economic impact of the floods is estimated to be around \$10 billion.

Flood waters soon receded from the north enabling livelihoods and reconstruction to take place, whereas large areas in Sindh province remained submerged under flood waters for several more months. Thus, Sindh province had the highest number of people affected (7.2 million) followed by Punjab with 6 million people and KP with 3.8 million people. Sindh was also the most badly affected area in terms of the percentage of area covered at the sub-district level with 12 of the 17 sub-districts that had more than 50% of their areas affected being in Sindh. Soon after the floods, outbreaks of diseases, such as gastroenteritis, diarrhea and malaria, due to the lack of clean drinking water and sanitation facilities soon posed a serious risk to flood victims. The elderly, disabled, women and children were especially vulnerable due to a lack of aid. Relief work was also hampered by the difficult logistical terrain, the destruction of infrastructure, government bureaucratic hurdles, lack of effective coordination and the threat of terrorist attacks, making this emergency response one of the most difficult ones for NGOs in recent times.



The DEC Appeal

The Disasters Emergency Committee launched a public appeal on August 2, 2010 for relief and recovery efforts in Pakistan. The appeal raised around £71 million for use over 2 years. All 13 DEC member agencies then participated in the DEC response reaching around 1.8 million people in the first 6 months alone from Pakhtunkhwa in the north to Sindh in the south. Plan UK became the DEC's fourteenth member in June 2011 and utilized other funds for the Pakistan emergency response. The chart above highlights how the agencies spent the funds over the first 6 months and then the following year. Spending specifically on DRR or building resilience is low and therefore subsumed within the 'other' category along with protection and capacity building. However, expenditures in other sectors also contribute to resilience and DRR through DRR mainstreaming as explained in detail in Chapter 3.

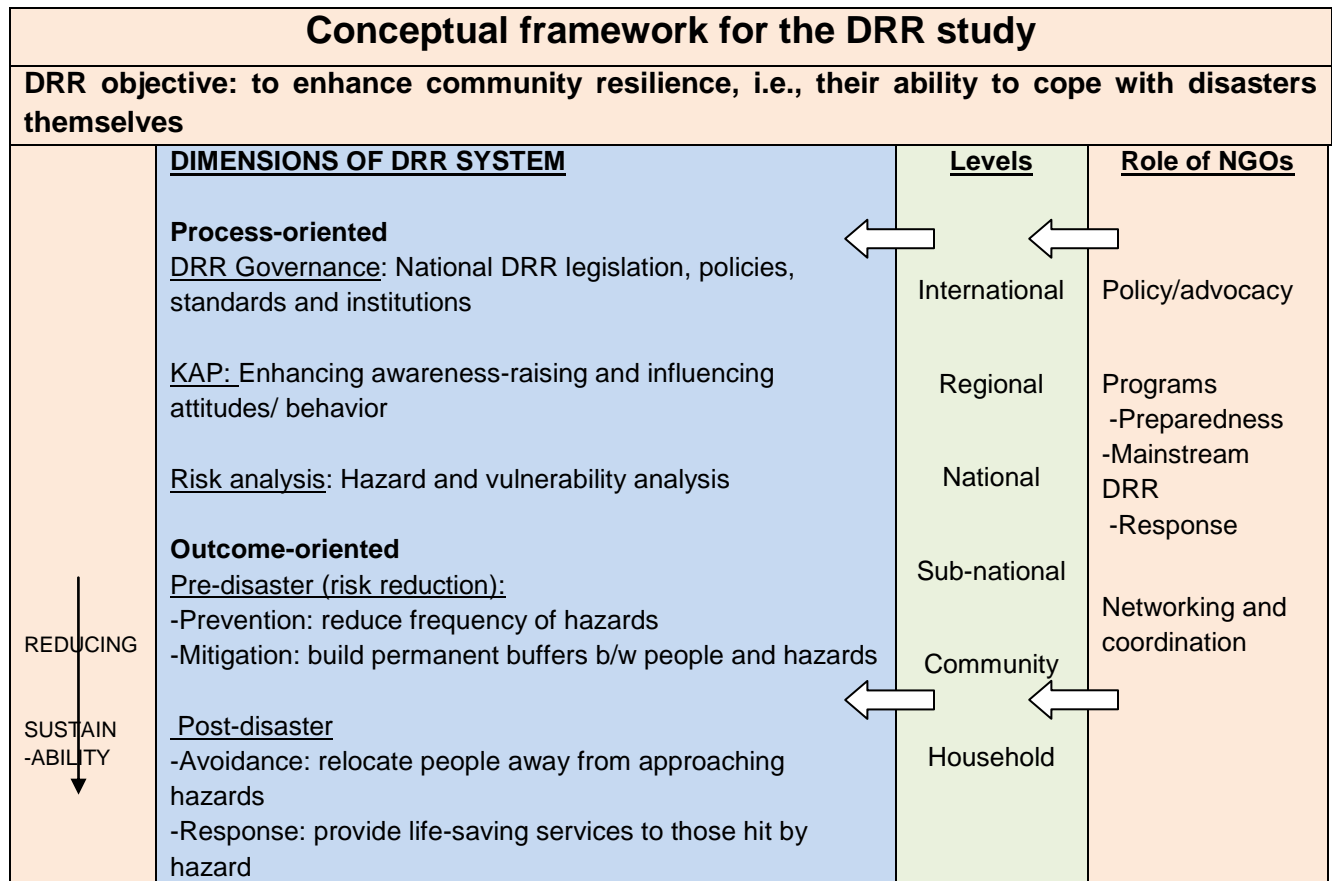
The Research Study

A key contributor to the massive damage caused by the floods was the lack of significant pre-existing DRR work in Pakistan, although since the floods, the government has put more emphasis on DRR. Pakistan was hit by more flooding in 2011 which, although also monsoon related, were of a different nature to the 2010 floods. In 2011 Sindh was again the most badly affected province with some of the same areas flooded for a second year. The scale of destruction highlighted the lack of preparedness and capacity of the country to effectively militate against such events. Writing on the International Day for Disaster Risk Reduction Dan Sparks said "The floods in Pakistan demonstrate the need for the government and donors to increase investments in activities to reduce risk, such as effective early warning systems, flood control, resilient housing and better planning."¹ The fact that some DEC agencies were engaged in DRR programmes as part of their Phase 2 response provides an opportunity to assess the extent to which they were successful in the areas flooded for a second time and compare this with the level of preparedness in the newly affected areas in south east Sindh. Thus, the objectives of the study were to i) assess the extent to which the response and disaster risk reduction interventions in Sindh province has prepared communities for future disasters and built their resilience, and ii) to gather evidence of good practice from effective DRR and DP programmes and identify the factors that contribute or hinder achievement of intended outcomes. Although Pakistan is affected by a variety of natural hazards as well as conflict, the focus of this study was mainly on floods given time limitations and the fact that the DEC funds relate to a floods response and the programs visited with agencies were all in a flood context. While perspectives related to other natural hazards are covered in some places, issues related to conflict are not covered given the vast differences in conflict and natural disasters contexts.

The Hyogo framework and John Twigg's Characteristics of a Disaster-resilient Community (supplemented by the UNISDR and UNOCHA Guidance notes) served as the intellectual foundation for this study. The study also used the Code of Conduct for the Red Cross and Red Crescent Movement and NGOs in disaster relief and Sphere guidelines in developing key

¹ <http://www.globalhumanitarianassistance.org/tracking-international-investments-in-disaster-risk-reduction-in-pakistan-3247.html>

criteria. This study utilized the conceptual framework given below to firstly analyze the nature, strengths and weaknesses of the national DRR system in Pakistan and secondly to review the contributions that DEC member agencies are making to DRR work. The national DRR system consists of five sub-dimensions which are derived from the priority areas mentioned under the Hyogo Framework of Action for DRR. Of these, three are process-oriented, i.e., setting up the national DRR governance system consisting of national DRR legislation, institutions, policies and procedures; undertaking awareness-raising activities among key stakeholders from the international to household levels and undertaking detailed hazard and vulnerability analysis. The other two are outcome-oriented sub-dimensions and relate to reducing the impact of the hazards for people directly. This first includes risk reduction through prevention (reducing the frequency of hazards) and mitigation (developing protective buffers between people and remaining hazards) activities in the pre-disaster phase. Secondly, it includes avoidance (based on early warning systems, moving people who are likely to be hit by hazards despite prevention and mitigation activities) and response, i.e., helping people who could not be relocated in time away from the hazard with life-saving relief services to avoid a second public health disaster after the first physically-induced one.



The activities from prevention to response represent a spectrum of reducing effectiveness and sustainability where the higher activities address root-causes and provide durable disaster risk reduction while the lower activities are largely reactive and do not reduce long-term disaster

risks. These five sub-dimensions can be evaluated from the international to household levels, although this study only focuses on the national and lower levels. Finally, NGOs can participate within the system through networking/coordination, program and policy activities. Programs generally focus on preparedness, mainstreaming and response while policy work generally focuses on influencing the work of other stakeholders, in particular the government, related to all five dimensions.

Study Constraints: Security issues were the main constraint faced in implementing the study given the recurrent nature of conflict in Pakistan. Consequently, one day of field work out of a total of five days allocated for it was lost due to a strike call by a political party in Sindh, with the result that two DEC agencies (Christian Aid and Tearfund) on that day could not be visited. Given that the DEC funding cycle was coming to an end, the study was also conducted during a period of high project-related activities for the member agencies. Moreover, DRR projects in these specific project areas had been in implementation for around or less than a year for most agencies. Given the high work load related to actually implementing programs for such a huge disaster also meant that agencies have not had the time to properly reflect upon and document their good practices. Thus, getting detailed information about the nuances of the programs related to their success and challenges was difficult in many cases for the review team. The report supplements that gap by drawing upon good practice examples from other contexts. Furthermore, as a joint initiative, this study was focused on highlighting cross-cutting issues found common across multiple agencies. Given that the team visited only one field site for each agency (and that too not all 14 agencies), the study findings do not relate to the details of particular agencies and particular sectors since insights about such details can only emerge if multiple visits to the same agency or sectors are made within a study. As such, the findings here are largely related to strategic, overall programmatic issues common to at least several agencies. Finally, one of the main questions in the TORs relates to evaluating whether the villages hit by the 2011 floods were able to cope better with the floods due to any DRR work that NGOs may have undertaken in them following the 2010 floods. This analysis was not possible since there was very little geographical overlap between the two floods even in Sindh. Thus, out of the 7 villages visited, only one had been hit by both floods. However, even there, the NGO's DRR work had started after the 2011 floods. So it was not possible to analyze the impact of NGO DRR work on enhancing community coping even there.

The detailed methodology for the study is provided in the appendix.

C HAPTER 2: THE PAKISTAN DISASTER RISK REDUCTION SYSTEM

The effectiveness of the program work of NGOs on disaster risk reduction can only be analyzed with reference to the overall national DRR system established by the government. Moreover, NGOs normally influence the national system through their advocacy activities. Thus, in order to review the effectiveness of the DRR work of DEC member agencies in Pakistan, it is crucial to first understand the nature, strengths and weaknesses of Pakistan's national DRR system.

Hazard Profile

Pakistan is a physically diverse country and consequently prone to a wide range of physical hazards. Much of the northern areas of Pakistan are covered by mountains where the inhabitants face winter snow storms, blizzards, avalanches and floods. The southern and western areas of Pakistan often suffer acute drought. Floods and earthquakes can occur in almost all parts of the country while the coastal areas are also prone to tsunamis and cyclones. In addition, Pakistan has also been wrecked by violence for the last 20 years. In short, Pakistan is prone to a wide range of natural and human disasters. Earthquakes have caused greater loss of life and property than other hazards. In the past 75 years, Pakistan has been hit by three earthquakes exceeding magnitude 7.5 (Quetta 1935; Makran 1945; and Kashmir 2005) with total loss of life exceeding 120,000. However, this report focuses mainly on floods since the focus of the DEC appeal and the programming of DEC member agencies covered here focuses on floods. Over the years, major floods have occurred with increasing frequency in Pakistan, causing huge loss of life and property, despite huge investments in river control. Like elsewhere, floods in Pakistan are either riverine or flash floods. The Indus is the principal river in the country with the Chennab, Jhelum, Kabul, Ravi, and Sutlej rivers being the major tributaries. The major component of the annual flow of these rivers is derived from snowmelt originating in the Hindu Kush-Himalayan region. A combination of one or more of five major factors causes floods in Pakistan²: i) Monsoon torrential rains in the months of July and August. ii) Westerlies from the Arabian and Mediterranean seas in winter, iii) Excessive melting of snow in spring and early summer; iv) Natural damming and subsequent outbursts because of landslides, debris flows, or glacier advances; v) breaches in the irrigation system built on the Indus.

DRR Governance

The HFA provides the intellectual foundations for the national DRR system of all signatory countries. However, a national DRR system evolves within the political processes of a country and an array of political and non-political processes help shape the politics of disaster management. Thus, the effectiveness of the national DRR system is a reflection of the quality of

² Disaster Preparedness for Natural Hazards in Pakistan, ICIMOD, Nepal

governance and political processes of a country which can only grow when political actors acknowledge and pay sufficient interest to reducing disaster risk. As in many other developing countries, natural disaster management in Pakistan had historically focused on rescue and relief until the 1960s since major disasters until then were rare in Pakistan. The Pakistan Army was called in to the rescue and to provide immediate relief but little was seen necessary in the way of preparedness, recovery and reconstruction given the limited scale of disasters. The responsibility for disaster management, especially in mitigation, preparedness, and prevention, was not given to any specific agency. The major floods in 1970s and 1990s and the large-scale earthquake in 2005 encouraged the government to gradually lay the groundwork for more comprehensive disaster risk management in the country.

In December 2006, Pakistan promulgated the temporary National Disaster Management Ordinance, paving the way for establishment of the National Disaster Management Commission (NDMC), which is a policy-making forum consisting of the Prime Minister, key ministers, provincial Chief Ministers and opposition representatives. The ordinance also provided for the establishment of the National Disaster Management Authority to act as the implementing, coordinating, and monitoring arm of the NDMC for disaster management as well as provincial and district disaster management agencies (PDMAs and DDMA's respectively). The ordinance was replaced by a permanent Act of Parliament in 2010. However, it would be useful to link the Act to the constitutional provisions enshrined in Pakistan's constitution which require that the government to safeguard and protect the lives and properties of all citizens so as to develop a rights-based, constitutionally-mandated perspective on disaster management. A more participatory and consultative approach in developing the Act would also have been helpful.

In 2010, Pakistan's parliament also passed a landmark legislation devolving significant authority from the federal government to the provincial governments. As a result of these pieces of legislation, the NDMA is mandated to provide technical guidance to national and provincial stakeholders about formulation of plans, strategies, and programmes for disaster risk management and work towards capacity building of national, provincial, and local stakeholders while the provincial and district disaster management agencies have implementation roles in DRR. However, it is important to provide greater clarity about the specific roles of NDMA and PDMAs to avoid friction among them and to properly align the NDMA Act with the constitutional devolution amendment. To its credit, the NDMA is adjusting to its reduced post-devolution authority over the PDMAs by developing a collaborative relationship with them based not on formal authority but on highlighting the value it could provide. Recently, the NDMA has been transferred from reporting directly to the Prime Minister's Secretariat into the recently created Climate Change Ministry. While this may provide it with a dedicated budget and staff and help link the DRR process with climate change adaptation better, it may also reduce its authority. The NDMA, PDMAs and DDMA's also need greater funding and skilled staff. The NDMA has many skilled staff but most of them are deputed temporarily from other departments increasing the risk of high turnover and low institutional memory. The PDMAs have mixed capacity. The KP and Punjab PDMAs have reasonably good implementation capacity but the Sindh and Balochistan PDMAs are still in the process of enhancing their capacity. Finally, the DDMA's

generally consist of one part-time person deputed from another district-level department, except in the case of around 30 highly vulnerable districts where the UNDP has funded one full-time but time bound position for each district³. The suspension of district governments has also reduced district-level capacities since such governments had their own independent budgets and authorities. Now, district authorities depend on provincial capitals for approvals and budgets. Elected district governments could also make district structures more connected and accountable to people.

The United Nations Development Programme (UNDP) assisted the government in formulating a 'National Disaster Risk Management Framework' to guide the work of the entire system in the area of disaster risk management⁴. The framework envisions: "achieving sustainable social, economic, and environmental development in Pakistan through reducing risks and vulnerabilities, particularly those to the poor and marginalized groups, and by effectively responding to and recovering from disaster impact." Nine priority areas were identified: i) institutional and legal arrangements for disaster risk management; ii) hazard and vulnerability assessment; iii) training, education, and awareness; iv) disaster risk management planning; v) community- and local-level programming; vi) a multi-hazard early warning system; vii) mainstreaming disaster risk reduction into development; viii) an emergency response system; and ix) capacity building for post-disaster recovery. The roles and responsibilities of key national, provincial, and local stakeholders have been defined to some extent in the framework. The NDMA is currently in the process of translating the Framework into a National Disaster Management Policy through consultation with all stakeholders⁵. NGOs have provided the following feedback on the draft: i) increase clarity in the legal framework for DRR/M and the respective mandates of the involved government agencies (national and provincial, civil and military), ii) increase clarity regarding the roles of both governmental and non-governmental stakeholders, and established mechanisms for coordination among them, iii) increase attention to the DRR/M issue of vulnerable and marginalized groups, including persons with disabilities and older persons, iv) ensure sustained funding for dedicated human resources in Disaster Management Agencies at the Provincial and District levels, v) increase attention to environmental management and planning, with respect to the legal framework and the roles of relevant government authorities, vi) increase attention to the unique challenges of urban disaster management⁶.

In addition to these NDMA, PDMA and DDMA, a number of other federal government agencies also play critical roles in the overall DRR cycle⁷.

³ This section is based on interviews with NDMA, DDMA, UNDP and NGO staff conducted as part of this study AND Oxfam's policy paper "Ready or Not: Pakistan's resilience to disasters one year on from the floods"

⁴ Pakistan National Disaster Management Framework, NDMA.

⁵ Pakistan National Disaster Management Draft Policy, NDMA

⁶ Pakistan NGOs DRR forum, Feedback on Draft NDMA Policy

⁷ Disaster Preparedness for Natural Hazards in Pakistan, ICIMOD, Nepal

Rescue and relief agencies: The National Crisis Management Cell operates under the Ministry of the Interior and is assigned the responsibility of monitoring emergencies, including those caused by natural hazards, on a round the clock basis through an operation room in coordination with Provincial Crisis Management Cells and relevant security agencies, The Emergency Relief Cell focuses on planning and assessment of relief requirements for major disasters; stockpiling of basic necessities for emergencies and establishing a central inventory of resources; establishing an emergency fund upon the declaration of any part of the country as affected by a calamity; coordinating the activities of federal ministries, provincial governments, and government, semi-government, international, and national aid agencies in carrying out operations for disaster relief; maintaining contact with international aid agencies and voluntary organizations and providing assistance to calamity-stricken, friendly countries. The Pakistan Army has an efficient system of peace-time disaster management, including first-hand damage assessment, search and rescue, immediate relief in terms of food, medical assistance, and re-establishing the communication and road network. The Civil Defence Department is assigned to assist local administration and the army in rescue, evacuation, and relief measures; supplement the anti-flood equipment of the army; and to provide personnel for anti-flood training in rescue and relief work.

Risk analysis and reduction agencies: The Pakistan Meteorological Department (PMD) functions under the Ministry of Defence and provides meteorological expertise to ensure traffic safety in the air, on land, and at sea; and provides weather forecasts for agricultural development and disaster management purposes. The Flood Forecasting Division, a subsidiary of the Pakistan Meteorological Department, plays a central role in providing flood forecasting and warning to the NDMA, PDMAs and DDMA and various flood management and relief organizations. With help from the Asian Development Bank, a comprehensive Indus Flood Forecasting System has been developed since the heavy floods of 1992. The system involved installation of radar in the upper catchment area for rainfall estimation, and a decision support system for improved flood management. A flood warning manual was prepared that defines the tasks of various government departments in the event of flood emergency. The Water and Power Development Authority is a semi- autonomous body carrying out accelerated and unified development of water and power resources. The authority contributes to flood management by 1) reservoir management through regulating the release of water from the country's reservoirs such as the Mangla and Tarbela dams and 2) contributing to flood forecasting by collection and dissemination of rainfall data. The Federal Flood Commission of Pakistan (FFC) is the lead federal agency providing the necessary institutional framework to support provincial flood mitigation measures through provincial irrigation departments such as construction of added embankments and spurs along major rivers and review of plans for restoration and reconstruction of irrigation channels. The Indus River Commission is an Indo-Pak official body which coordinates the flow of rivers and related information between the two countries. Most of the catchment area for the Indus River system lies in India, China, and Afghanistan. If upstream controlling structures such as dams and barrages occur outside the territory of Pakistan, their water release is beyond its government's control. Effective flood-control management in Pakistan is not possible, therefore, without rainfall and flood-water data from across its borders,

especially from India. In addition, the Dam Safety Council, Pakistan Engineering Council, and the Geological Survey of Pakistan play crucial roles in monitoring and managing physical hazards in Pakistan.

As with the vertical linkages among the NDMA, PDMA and DDMA, there is a need to further enhance coordination among these federal and provincial agencies horizontally. Since the total DRR agenda of prevention, mitigation, early warning, avoidance and response is divided across multiple agencies, they should coordinate more regularly and formally. Having one agency with complete oversight over the entire DRR national agenda would increase synergy among the different DRR activities. It would be useful to look into merging some of these government agencies into the NDMA and to give NDMA monitoring and 'convenorship' authority to bring all these government agencies together regularly for coordination purpose within the rubric of a formal platform using modern matrix management techniques so as to enhance synergy among the different DRR-related agencies and activities.

Knowledge, awareness-raising and attitude and practice change

The NDMA is active in undertaking awareness-raising and capacity-building activities on DRR in Pakistan. It has held a large number of workshops and meetings to raise awareness among government departments and other key stakeholders with a view to mainstreaming DRR concerns in regular developmental work. The NDMA website mentions a large number of such activities that it has conducted. However, there is a need to collate information about actual DRR mainstreaming in regular development work of the government. A high number of NDMA activities occur at the national and provincial level, but there is a need to do more at the local and community levels. Another major area of importance should be the integration of DRR awareness-raising in educational curricula. The NDMA had also set up a National Institute of Disaster Management to enhance training and awareness-raising activities in DRR nationally. Unfortunately, the activities of the institute had to be scaled back significantly due to the lack of funding. Finally, there is a need for the government to provide information to communities about the national DRR system and the associated agencies' mandate and work.

Multi-hazard disaster risk analysis and early warning systems

The NDMA was developing a detailed hazard and vulnerability atlas for Pakistan. However, this effort has been suspended due to the lack of funding. In the absence of such an atlas, information about the hazard and vulnerability risks across the different regions of the country either does not exist or is spread across many different government agencies. Following the major floods in 1992, a comprehensive flood forecasting and warning system was established under the auspices of the FFC and the PMD. The Indus Flood Forecasting System includes weather radars, an HF radio system for communication, gauges within the river system to monitor water flow, development of training and user manuals, and preparation of computer

simulation models⁸. The PMD issues warnings to the PDMA's and district authorities regularly based on this system. However, there is a need that the information be disseminated using less technical hydrological information so that district authorities can more easily translate it into the type and scale of flood which may hit their respective districts. In addition, flash floods are inherently difficult to predict. Moreover, even with riverine floods, the scope of the floods caused by breaches in the irrigation system may be difficult to predict, as during the 2010 floods. Thus, there is a need to enhance the technical capacities of the system further and enhance its ability to provide user friendly information to district authorities. In addition, district authorities often lack the resources to transmit the information down to communities. Thus, less than 10% of the almost 100 flood affected villages that the Team Leader has visited since the 2010 floods had received advanced warning and that too was usually from mass media sources or word of mouth. The flood warning system is the most comprehensive one in Pakistan despite all its weaknesses. There are pilot EW systems along the coast for tsunamis and cyclones. However, these systems are not fully functional. An Earthquake Prediction Centre has been launched at the Quaid-i-Azam University, Islamabad. However, its ability to accurately predict earthquakes is low presently⁹.

Disaster risk reduction: Prevention and mitigation

Although individual flood events cannot be linked with certainty to climate change, increased floods globally is increasingly seen as partially due to global climate change. As such, a reduction in their frequency will require international coordinated action by all countries. Given its high vulnerability to floods, Pakistan must play an active and meaningful role in global climate change negotiations and control its own contribution to climate change and adapt to it effectively. The government of Pakistan has recently set up a Climate Change Ministry in 2010² and the NDMA has been merged into it recently. However, the ministry is too new at the moment to have taken any major steps to deal with climate change. The high degree of deforestation that has occurred throughout Pakistan is also contributing to increased occurrence of floods within the country. Extensive deforestation of natural forests in the upland catchment area for timber and fuel wood reduces the water-retention capacity of the forest eco-systems. This can increase surface water runoff and soil erosion, increasing the quantity, velocity and sediment load of the headwaters entering the river system. In turn this causes repeated landslides, damages riverine infrastructure and results in additional siltation of the downstream water channels¹⁰. While some small-scale reforestation programs exist, major steps are needed to reverse the deforestation.

⁸ Disaster Preparedness for Natural Hazards in Pakistan, ICIMOD, Nepal

⁹ Please see "Strengthening National Capacities for Multi Hazard Early Warning and Response System", Govt of Pakistan Cabinet Division for more details on multi hazard early warning systems in Pakistan

¹⁰ Pakistan Floods : Preventing Future Catastrophic Flood Disasters; Marcus Oxley, Global Network of Civil Society Organisations for Disaster Reduction

Flood mitigation activities do occur annually in Pakistan under the auspices of the FFC and the provincial irrigation departments. These departments plan, design, construct, and maintain flood protection works through flow measurement at specific sites on rivers, canals, and 'nullah' and construction, and maintenance of flood protection irrigation channels, small dams and protective works. However, there is no easily available master plan linked to a national hazard and vulnerability atlas which could highlight the main points of vulnerability throughout the country and help in analyzing whether these departments are focused on the most crucial points of vulnerability and how effectively and efficiently they are addressing them. In addition, reduction of mitigation is a serious issue in Pakistan due to the construction of large-scale development project without adequate analysis of their impact on disaster risks. Thus, several large-scale projects are viewed by communities as having increased their vulnerability, e.g., the World Bank-funded Left Bank Outfall Drainage Project (LBOD), is viewed as having blocked most of the natural rain water flow. People feel that it is important that the government re-opens all these flows so that access rain water would drain its self out (Personal interviews and ActionAid study on LBOD). Such projects are altering delicate ecological balance, enhancing environmental degradation, exacerbating conflicts over resources and enhancing power inequities within the country. Another major factor undermining people's resilience is the social structure in rural Pakistan resources are controlled by local elites, such as landlords and tribal leaders. Land ownership is heavily concentrated in Pakistan and poor communities are often pushed into cultivating marginal land which is less productive and also located in areas more vulnerable to disasters. During the 2010 floods, there were numerous complaints against landlords and government officials colluding to divert floods away from the lands of rural elites and towards their lands.

Disaster preparedness: avoidance and response

The level of preparedness for floods in Pakistan is higher than for other natural hazards. Emergencies are monitored by the Ministry of the Interior through the National Crisis Management Cell round-the-clock. It coordinates with the provincial Crisis Management Cells and all other security agencies to provide information for any emergency situation. The large number of other departments responsible for relief operations was also mentioned earlier. However, in practice, these institutions require more effective capacity for dealing with large-scale disasters as evident during the 2005 earthquake and 2010 floods. Practically, only the Pakistan Army, because of its superior communications, transportation facilities, and skilled human resources, has a high degree of effective relocation, rescue and immediate response capacity. The DDMA's, which are the main implementation focal points during emergencies, mentioned their dependence on the army and NGOs for disaster response purposes during interviews. While the most vulnerable districts have developed their contingency plans with the help of UNDP, these plans need to be backed with adequate resources and capacity and must

be developed in a more bottom-up manner. Most district authorities currently lack the capacity to implement the plans in even medium-scale emergencies.

Conclusions

While Pakistan has set up the DRR governance system, it needs greater funding, political support, and coordination to work more effectively. Most of the focus is on avoidance and response, the least sustainable form of DRR and even these activities are not highly efficient or effective. More durable forms of DRR, such as mitigation and prevention need more attention but development projects often result in reducing mitigation and undermining prevention activities. The main areas of improvement of the national system are:

- The DRR legislation must be linked with constitutional provision about govt ensuring protection of citizens, more fully reflect post-devolution 18th amendment realities and should have been developed through a more consultative process. The DRR system is divided across multiple institutions with close, overlapping mandates some of which could be merged into a single, fully-mandated DRR authority with oversight over other agencies and overall DRR activities to ensure synergy. The NDMA, PDMA and DDMA require more resources and dedicated staff
- Awareness-raising activities are mainly happening at institutional level federally and provincially and do not cover grass-roots communities and local stakeholders. NDMA information on DRR mainstreaming among government agencies focuses mainly on activities rather than outcomes
- The hazard and vulnerability atlas exercise has been suspended due to lack of funding with the result that hazard analysis information is incomplete. Risk reduction through prevention and mitigation needs to be more comprehensive. NDMA must be in the loop about all such work while mitigation is reducing at much faster rate from regular development projects like LBOD
- Early warning flood information must come earlier, and in language that is easily decipherable by local authorities into specific mapping of floods geographically and temporally. The focus of DRR work at PDMA and DDMA is on contingency planning for emergency response. However, capacity even for this is not adequate and the ultimate reliance is on the army and NGOs.

C HAPTER 3: THE ROLE OF DEC MEMBER AGENCIES IN DRR IN PAKISTAN

This chapter reviews the DRR contribution of DEC member agencies in Pakistan in the areas of advocacy and policy work, networking and coordination, and DRR mainstreaming and CBDRM programming.

Policy, advocacy and networking

Until recently, NGOs were undertaking DRR-related advocacy and networking in Pakistan on a one-to-one basis or through general-purpose forums like the Pakistan Humanitarian Forum and the UN/NDMA-led cluster and working groups. Some NGOs had commissioned policy papers, e.g., Oxfam's "Ready or not: Pakistan's resilience to disasters one year on from the floods" document and ActionAid's study on the negative impact of the Right and Left Bank Outfall Drainage Projects. In late 2011, the ability of INGOs to undertake such DRR activities increased significantly with the establishment of the Pakistan DRR Forum, "an informal group of civil society organizations voluntarily coming together on issues of common interest in the field of Disaster Risk Reduction and Management (DRR/M) and Climate Change Adaptation (CCA), at the national level in Pakistan". The purpose of the DRR Forum is to enhance communication, coordination and information sharing on DRR/M and CCA between all relevant stakeholders in order to promote, improve and integrate DRR and CCA in emergency and development programs in Pakistan" (DRR Forum TORs). The forum is a longer-term body not restricted to emergency response or development phases. Membership in the DRR Forum is open to all registered International NGOs, National NGOs, and Red Cross/Red Crescent organizations who are actively working on DRR/M. DEC member agencies are active within this forum. Twelve out of the 14 DEC member agencies are its members, World Vision Pakistan was part of the initial dialogue to establish it while Save the Children is currently one of the two Co-Chairs. World Vision also led the forum earlier. The objectives of the Forum include:

DRR FORUM OBJECTIVES

- Advocacy on DRR/M issues, including civil society involvement in government planning and reporting, especially with respect to the HFA and other regional and Global initiatives; effective coordination on DRR/M among civil society, government, UN and donor agencies; donor funding for DRR/M outside of individual emergency contexts and beyond mainstreaming; specific studies and research on disasters, DRR/M and Climate Change in Pakistan; and general awareness on DRR/M issues among communities and humanitarian/development actors
- Facilitating regular knowledge and information sharing on DRR/M activities, policies, resources, and strategies and the development and sharing of DRR/M lessons learnt, best practices, research, and standardized approaches for all phases (emergency, early recovery and development)
- Developing DRR/M recommendations and technical guidance for Clusters/Working Groups covering all sectors, i.e. Health, WASH, Education, Agriculture & Food Security, Livelihoods,

Shelter/Housing, Protection, Gender, Environment, Community Infrastructure, etc.

- Enhancing coordination among the government, UN, INGOs, national NGOs, scientific organizations and other key players in the DRR/M sector
- Ensuring recommendations for inclusion of all vulnerable groups (women, children, elders, and persons living with disabilities) into DRR/M activities, policies and strategies
- Raising awareness and encourage learning around the linkages between Climate Change Adaptation (CCA) and DRR/
- Analyzing operational risks, challenges, and changes with respect to DRR/M program implementation covering a multi-hazard approach

The forum holds meetings regularly every month to provide a platform to member agencies to coordinate work on DRR in Pakistan. The forum has also set up physical and virtual libraries and web portal to facilitate the sharing of DRR resources among member agencies and the general public and is discussing modalities for establishing its presence at provincial levels. With respect to DRR advocacy, the Forum provided feedback on the NDMA's draft NDM policy. It has also identified the following areas for further advocacy work:

DRR FORUM ADVOCACY PRIORITIES

- Encouraging the government and UN to involve I/NGOs and other civil society organizations in DRR/M coordination, planning, and reporting.
- Encouraging the government to prioritize ensuring disaster management awareness, capacity, and expertise among government departments, especially at the district level.
- Encouraging more research and technical studies on DRR/M issues in Pakistan
- Encouraging all DRR/M structures, planning and activities to promote inclusion of persons with disabilities, older persons, women, and children.
- Encouraging the government to actively engage I/NGOs and other civil society organizations for bringing existing DRR/M structures and systems to villages.
- Encouraging provincial education departments to revise existing curricula to integrate DRR/M components, and provide capacity building for teachers to teach DRR/M topics.
- Encouraging the government to include DRR assessment as an essential component of its review and approval process for large-scale development plans

These priorities focus on the main weaknesses in the national DRR system identified in the last chapter, such as lack of adequate funding, coordination and hazard analysis. Thus, the DRR

Forum provides an important platform for NGOs to pool their policy and advocacy efforts and attempt to influence national prevention and mitigation activities which represent the most durable and sustainable forms of DRR. This will complement the community-level DRR work that NGOs are doing within their programmes which mainly focus on avoidance, response and some micro-mitigation work. However, since the Forum is relatively new, it still in the process of developing a clear and achievable agenda and adopting effective strategies and obtaining the resources to achieve it. While a more meaningful analysis of its effectiveness is not possible at this stage, its establishment is certainly a positive step in the right direction.

Community perspectives on DRR

This section draws extensively on the focus group discussions undertaken in 7 communities with males and females as part of this study. It describes the way people perceive the increasing incidence of floods, the causation they assign to it; the challenges it poses for them, the role they perceive for themselves and other stakeholders in reducing disaster risks and the type of support that they need. These dimensions will help in reviewing the suitability of NGO DRR programming described in subsequent sections.

Communities described the 2010 and 2011 floods as the biggest that they had experienced themselves or even heard about from their elders. While most of the villages had experience of dealing with minor floods using their own individual and community resources, these resources were clearly overwhelmed by the scale of the 2010 and 2011 floods. None of the villages received authentic, unambiguous and prior information about the floods from government officials. Three communities had receiving early warning information from mass media, word of mouth and informal sources but assumed that the floods would be of the same minor scale that they had historically experienced. Thus, most villages did not undertake any avoidance strategies and were caught unawares. However, in 2 villages, people had taken precautionary measures and had moved their assets to safer places partially. As such, clear, reliable and unambiguous information during the flood season is seen by people as a critical need. This links back to the finding in Chapter 2 that government early warning information is often late, provided in technical language that does not clearly reflect the level of the floods in a given region and often does not go further from government officials to communities.

Bhaagi, a child in a village in Badin district, described her family's predicament as follows, "I was doing domestic chores with my mother and my brothers were playing outside home with their friends when suddenly it started raining. We all enjoyed rain initially but it was an endless rain... It kept on raining on and on. We all were horrified when all over a sudden one of my brothers dropped in home shouting that the roads connecting to our village were broken and there was so much water everywhere around that people were drowning. Exactly that was the time when one of the walls of our home fell flat we started crying. We could see through the broken wall that almost all the houses nearby were demolishing. We lost everything our books as well our school was demolished no one approached us for help for a long time; we were hungry for days".

Due to the absence of early warning information, people suffered significant losses. More than 50% of the houses were destroyed in all the villages as they were made of mud or mud bricks. Household items were invariably lost with the houses. Saving people's own lives, animals and other high-value items was the priority for people. Even so, a large number of animals were lost, with people giving estimates ranging from 25% to 75% for animals lost in the village. In most villages, people were displaced for several weeks and those that did not have close relatives and friends often had to search for shelters in the absence of clear information. People also complained of inadequate help with basic needs while displaced. Thus, the need for clear and authentic information about shelter and camp locations and relief services is another major information need for people.



“The teachers have told us that the CFS will end because of low budget, but we children have decided to hang on at this place and not let them remove it from here. We would try our levels best to sustain it because it has brought a big change in our lives”.

Children in a Save the Children Child Friendly Space in the village of Hanif Rendawa, MirpurKhas,

With respect to causation, people often presented the floods as an act of God. Such statements are often interpreted as evidence of fatalism and unwillingness to act proactively among communities. However, more in-depth probing reveals that this reference to godly acts is more in line with the idiom, “Man proposes; God disposes”. Thus, the reference to acts of God is used more to come to terms with the floods-related losses after the floods rather than as an excuse for doing nothing before and during floods. People do assign more active worldly agency to floods and to their own role in dealing with them, and are keen to receive help from agencies to strengthen their own coping mechanisms. While communities have only vague notions about how global climate change may be increasing the frequency of disasters and what preventive steps could be taken to reduce the frequency of floods, they are well aware of the immediate causes that are increasing their own exposure to floods and local mitigation measures to deal with them. Thus, a major complain in almost every village related to the impact of large-scale

development projects such as the LBOD, bridges and large dams on increasing their vulnerability. People were also critical about the lack of maintenance of irrigation channels which increased their vulnerability to disasters. Finally, in many villages, people also complained about the fact that landlords and government officials had connived to divert flood water away from the lands of rural elites and towards the lands of poor communities. People also identify limited livelihoods opportunities as one reason for their vulnerability which in turn is partially due to their dependence on landlords.



"In the rains of last year this LBOD embankment broke down. This year they have started construction but it is not going very well. The embankment we are standing on should have been 5 feet higher plus this other embankment should have also been 5 feet higher. Instead they have left it incomplete saying it is complete. You can see its condition; if water hits it again it will surely break through the wall.

Labourer Muhammad Idris, near the village of Chattu Bheel, Sindh complaining about the LBOD

Communities are keen to enhance their resilience in working together with NGOs both through software and hardware programs. The committees set up and the contingency planning exercises undertaken with the help of NGOs as part of their CBDRM projects (please see below for details) are universally seen as a very important step in increasing people's resilience. People feel that these activities have brought people together and have increased their ability to deal with floods in an organized manner, and help link with and obtain services from government and external agents. Hygiene promotion programs were also seen as very useful in reducing the exposure of people to communicable diseases. In terms of "hardware" programs within villages, people generally identified concrete houses as an important mitigation intervention. People were also keen to receive support for their livelihoods activities as they felt that given the multiplier effect, livelihoods activities can also eventually help them fill gaps in housing, sanitation etc. on their own. People in all villages also identified mitigation schemes that could help protect their villages from floods. One village even identified relocation of their low-lying village to a higher place as a mitigating strategy.



"If the floods comes again this year and destroys ours crops it will be our last chance. I borrowed money from local creditors at a very high rate of interest to buy grain, water and fertiliser. I have lost my original identification papers and cannot apply for a loan from the bank or receive government support."

Muhammad Usman, 60 years old, father of six children stands in the ruins of his family home destroyed in 2011 floods in the village of Hanif Rendawa, Mirpur Khas.

Women were generally found to be less familiar with NGOs programs and less involved in CBDRM activities in almost every village. At the same time, women are acutely aware of their higher vulnerability to disasters due to their lower education, mobility, access to services and opportunities, and involvement in village and household decision-making but higher work burden related to household chores, child-bearing and rearing and assisting in livelihoods activities. The vulnerability of female-headed households with limited support from extended family members is even higher since women in households with male heads can indirectly access greater opportunities. Women are also more acutely aware of their poor family nutritional status, especially of children, and are particularly interested in receiving health, hygiene promotion, nutrition and livelihoods support.

Zarina, a community based health worker in one of the villages in Badin described women's situation as follows, "We have serious health issues in our village. Most of the women and children here are anemic because of malnutrition. On the one hand the floods damaged our assets, on the other hand, the already ill-fed children and women experienced heavy health impact after floods. Still the embankments are weak, God forbids if similar hazards recurs we would experience heavy death toll; women would suffer twice more because they are already kept at the margins. Women and children also suffer more because of less mobility as compared to men; they are dependent upon men for the safe rescue during these hazards. Almost all homes here cook only once a day, hardly any home cooks twice a day, while there is no concept of three meals a day here".

The review team came across several villages with a large number of resident minority Hindu families. Generally, they seemed well-integrated in the CBDRM and mainstreamed DRR

programs. However, minorities do face various forms of formal and informal discrimination and exploitation in Pakistan, as in many other countries. Within the Pakistani context, the main forms of discrimination for rural minority families are exclusion from access to land, credit and other livelihoods inputs, lower educational access and lower access to government emergency and regular services. These factors reduce the resilience of minorities against disasters in Pakistan. Some strategies for enhancing the resilience of minorities as well as of other excluded groups will be discussed later in the report.



"We were not told that the flood waters were coming, it was very sudden."

Seeta describes her experience when the flood waters came in the village of Hanif Rendawa, Mirpur Khas served by Islamic Relief.

DRR mainstreaming in emergency and development program sectors

All the main sectors of programming funded by the DEC have resulted indirectly in DRR outcomes, including even the relief phase activities in the areas of food and non-food distribution. This section provides a brief overview of mainstreaming of DRR concerns in different sectors by agencies.

Food aid in the relief phase helped improve the health and nutritional status of communities. It increased their ability to engage in livelihoods activities and build up their asset base which will provide protection against disasters in the future. It also allowed people to participate in the cash and non-cash-based construction activities supported by NGOs, such as construction of embankments, protective bunds and roads which will all help in mitigation against future disasters. Many of the relatively durable items distributed as part of **non-food kits**, such as tools, tents and mosquito nets are seen by people as enhancing their protection against future disasters. Concern, Save the Children and BRC (through the PRCS) also preposition non-food items for future to ensure timely response as part of disaster preparedness efforts.



A traditional mud/straw house in Sindh villages which provide poor protection against floods



A concrete, more resilient house constructed by ActionAid in Arbab Obhayo village, Sindh

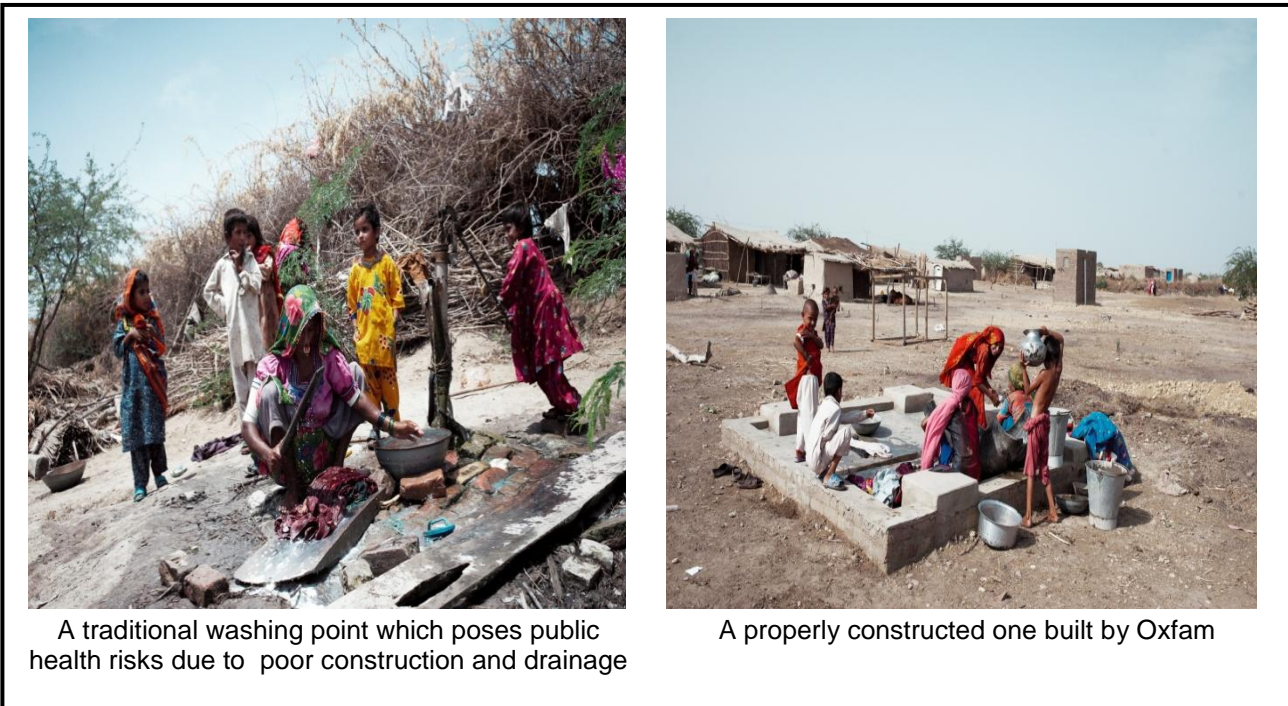
Shelter work is generally seen by communities as the most important form of mainstreamed DRR work in terms of enhancing their resilience. Agencies involved in housing construction, such as Plan, CAFOD's partner CRS, Islamic Relief and Christian Aid's partner Muslim Hands have developed housing models which provide greater protection during floods. Generally, the house foundations have been elevated by 3-4 feet to provide protection against floods water. The construction of the walls is also sturdy with the use of strong bricks and cement instead of the mud bricks and mud cement used previously by communities. Christian Aid's partner CWS-P/A also trained masons in its vocational training programs to build more flood resilient houses. Tearfund's houses can hold 7-8 family members on the roof during floods, and are cyclone-resistant. Due to the low material cost, maintenance is easy, without the need of high technical expertise, making the structures sustainable. However, the resilience of communities through shelter work could be increased further by including storage areas near the ceiling where households could keep important possessions, e.g., official documents and jewellery, during floods. In some cases, house owners have themselves erected such shelves.

Health and hygiene work has also had important outcomes with respect to DRR. Communities generally feel that the hygiene training done by agencies (such as BRC, Concern, CARE, Merlin, Plan, Tearfund, World Vision, Islamic Relief, Save the Children and Oxfam) has helped families maintain adequate hygiene standards during disasters and reduce the risks of epidemics. In addition, Merlin has also helped the government to set-up a Disease Early Warning System (DEWS) at local levels so that epidemics can be checked early before they cause a second public health disaster. Merlin has also contributed to DRR outcomes by building the capacities of government health personnel so that they can tackle health emergencies in the future on their own. Save the Children is building the knowledge of communities' on preventative practices against emergency-specific epidemics by disseminating IEC materials and broadcasting preventative health messages on radio.



Naziran Umrani, a lady health worker talks in Allah Bakhsh village, Sindh about the impact of the polio vaccinations, malnutrition assessments of children, distribution of food aid and maternal health education undertaken by Merlin.

Water and sanitation activities schemes have also enhanced the resilience of communities. Properly built latrines according to Sphere guidelines have reduced the risk of ground water contamination as well as the risk of diarrhoeal and malarial diseases (e.g., by Save the Children and Islamic Relief). Elevated and well constructed hand pumps (e.g., by Islamic Relief, Plan, Tearfund and CAFOD's partner CRS) have improved the quality of water for communities during disasters and reduced the risks of diseases.



A traditional washing point which poses public health risks due to poor construction and drainage

A properly constructed one built by Oxfam

Education programs have also incorporated DRR concerns. Save the Children is helping improve DRR learning and practices in targeted schools and strengthen emergency preparedness in the education sector by setting up and training school management committees and district education staff in DRR; developing school and community safety and emergency plans; and establishing children's clubs and helping them develop emergency plans. World Vision Pakistan has started mainstreaming of DRR in the education sector and all sector proposals are inclusive of DRR activities, e.g., capacity building activities for teachers, parents and children. World Vision has also undertaken training for Parent-Teachers Associations and the Ministry of Education staff. It is also working closely with the District Disaster management authorities and education departments in Sindh, Khyber Pakhtunkhwa and Muzaffargarh in Punjab to promote a culture of resilience to disasters and enhance local capacity for future emergencies. Tearfund has undertaken a pilot project to develop DRR-focused educational material for schools. Building on its child-centered community development approach, Plan has focused on mobilizing communities and young people /children to take an active role in assessing the risks in their own community/environment, analyzing the causes and coming up with mitigation measures and preparedness plans, that protect them from hazards and vulnerabilities. It has helped the formation and capacity-building of Village Organizations and Children & Youth Groups/Forums, organizing events, initiating children-focused DRR media/campaigns and implementing school-based DRR initiatives. With the objective of reaching a larger number of villages with DRR information than the one where it is implementing on-going emergency projects, Christian Aid's partner CWS-P/A has established a Mobile Knowledge Resource Centre (MKRC) to raise awareness on DRR in high disaster risk areas (please see details later in the "good practices" section).



Girdhari, 15 years old talks about disaster preparedness activities undertaken at a Plan International Child friendly centre in the village on Chattu Bheel, Badin District, Sindh province. Preparedness plans developed by children can be seen on the centre walls.

Finally, **livelihoods activities** in the areas of agriculture, livestock, trade and vocational training have all increased people's incomes, allowing them to undertake numerous mitigation activities around their houses and communities and accumulate savings for emergency days. Christian Aid's partner CWS-P/A has also introduced organic farming techniques which are more resilient during drought. CARE is designing a program to introduce agriculture-related micro-insurance for communities for flood and drought through private sector insurance engagement. This will help bring timeliness and reliability into humanitarian interventions, make communities less dependent on aid and increase their vigilance in protecting and reporting damages to their food sources. Water schemes for irrigation purposes, such as those done by Concern and CAFOD's partner CRS will reduce water leakage and loss and hence reduce the risk of drought. Similarly, Islamic Relief is facilitating water harvesting through water ponds. World Vision Pakistan has facilitated a DRR inclusive livelihood approach in building community resiliency to disasters. World Vision has integrated DRR in its Livelihood and Education projects in Sindh, Punjab and Khyber Pakhtunkhwa under early recovery program. Tearfund and Islamic Relief also support agricultural and livestock projects. Concern has also developed a detailed checklist for guidance on DRR mainstreaming in the various sectors (shelter, cash-for-work, agriculture and livestock) being undertaken in its emergency programme and also mainstreams DRR in its development programmes. BRC, CAFOD/CRS, Age UK and Islamic Relief have also integrated DRR in all their early recovery work.



Goats provided by ActionAid for livelihoods purposes, one of which will give birth soon, resulting in increased marketable assets rapidly for the family.

Community-based Disaster Risk Management (CBDRM)

Twelve of the fourteen agencies (ActionAid, Age-UK, CAFOD/CRS, CARE, Christian Aid/CWS-P/A, Concern, Islamic Relief, Oxfam, Plan, Save the Children, Tearfund and World Vision)¹¹ are also involved in CBDRM activities with the objective of increasing disaster preparedness. CAFOD's partner CRS has developed a comprehensive and versatile CBDRM manual. The communities that we visited where CBDRM programmes were being implemented seemed highly enthusiastic and committed to the exercise and exhibited ownership of the process. Minorities seemed well integrated in the exercises. However, women were not equally involved in many cases. Finally, in many cases, the agencies had not conducted detailed analysis of the socio-economic contexts of the villages which could provide useful information for programming, e.g., identifying excluded groups and possible strategies for enhancing their resilience. While the agency programs differ in the details, the following aspects are common to most agencies:

COMPONENTS OF CBDRM WORK

1) Building local organizational capacity for avoidance and response

The foundation for CBDRM work generally consists of village-level community-based organizations set up by DEC member agencies and their partners. Some agencies have also set-up separate CBOs for women although in general, women CBOs seem less active and aware about CBDRM programs. The CBOs are set-up with the active participation of the village people and given basic training on CBDRM. CAFOD/CRS's CBDRM manual provides varied tools for this step.

2) Development of village contingency plans:

After receiving the training, the CBOs are helped to develop village-level contingency plans. These plans generally include a hazard and vulnerability analysis, avoidance and evacuation planning, division of labour and assignment of roles and responsibilities among village members. For example, World Vision is currently implementing the community owned vulnerability and capacity analysis program that informs the development of community based disaster preparedness plans. World Vision also facilitated the formation of 30 disaster management village committees and has enhanced their skills through CBDRR in hazards and vulnerability analysis and village level disaster management plan in the form of CDP. CAFOD/CRS also employs varied techniques to help communities reflect on their vulnerabilities.

3) Linkage development with external stakeholders

CBOs are also linked up with local government authorities and other relevant stakeholders for early warning information, and help with evacuation and relief aid. CARE and CAFOD/CRS are also setting up pilot projects to help communities receive early warning information through SMS with the help of mobile phone service providers in the private sector. ActionAid has also facilitated the establishment of the Thatta Disaster Response Network in Thatta district in Sindh which links the CBOs in 15 villages where it has undertaken CBDRM work (please see details

¹¹ Merlin does not focus on CBDRM since its health work focuses on strengthening the capacities of the government health system while the BRC is presently developing its DRR strategy.

later). Concern's CBDRM programmes also focus at Union Council (a cluster of around 6-7 villages) level to ensure optimum coverage of villages. The objectives of the network are to raise voice and conduct information advocacy programs regarding the rehabilitation of flood affected masses, organize different campaigns on relevant issues, coordinate with Government and Non- Government organizations efficiently in pre- during and post disaster situation, strengthen the capacities of vulnerable communities in DRR and contribute to local Level early warning mechanisms. Tearfund has developed Disaster Management Committee (DMC) in fifteen villages and equipped with necessary materials and linked with DDMA's.

4) Village-level micro-mitigation work

A number of agencies have also undertaken micro-mitigation work within communities to provide buffers to communities and enhance their ability to escape more easily once floods arrive. For example, Concern has funded the construction of a bridge in Jamshoro which will make it easier for several villages to evacuate rapidly during floods. Christian Aid's partner CWS-P/A had undertaken cash for work focused on repairing/constructing roads, culverts, embankments and protective bunds. Oxfam has planted trees in villages to lessen the impact of torrential rains and reduce soil erosion. Save the Children and Plan have constructed sturdier schools and child-friendly spaces which can provide protection to communities during floods. CAFOD's partner CRS works on roads and irrigation channel schemes. Save the Children has also constructed a bridge to help villagers escape easily during floods and a speed-breaker on the road to help children cross it safely.

Micro-mitigation and avoidance in practice



Make-shift traditional bridge in a village which did not allow people to escape with possessions during floods in Jogi Khan Rind, Sindh Province



A proper bridge being built there on community request by Concern Worldwide to allow people to escape floods more easily

Potential good practice examples of DRR programmes

A good practice program example consists of i) a new, creative, promising approach to resolving a long-standing, major community problem, ii) which has been shown to work well within the local context through proper evaluation and documentation and iii) where there is good evidence of its potential replicability to other contexts. Viewed so, it is difficult to flag any of the current agency DRR programmes as examples of good practice. While many programmes employ standard, well-established, well-known DRR approaches, several relatively new approaches have been introduced, but they have only been started a few months back, and are still in the early implementation phases. Thus, there is little evaluation and documentation of their success in the long context and replicability elsewhere. In fact some new approaches are still in the planning stage. Nor was there sufficient time to evaluate and document good practice approaches of individual agencies as part of this study. Thus, this study only identifies activities which can be termed as potential good practice approaches since they satisfy the first criteria above in representing new, creative and promising approaches and which with proper implementation, documentation and evaluation could be presented later as good practices. Examples of potential good practices from ActionAid, CARE, Christian Aid, Concern, Merlin and Plan are provided in the appendix. The common threads across these creative programmes include: i) focus on enhancing the self-reliance of people, ii) in-depth, multi-level analysis of people's problems, iii) linking people with a broad range of external stakeholders, and, iv) cultural and political sensitivity. The relevant agencies are encouraged to subsequently evaluate and document their respective programmes further once they have been in implementation long enough. While we have identified practices from only six agencies, there may be other potential good practices within the programmes of agencies which were not visited or where the information did not reach the evaluation team. In addition, an example of involving women in DRR activities in Pakistan's conservative culture is appended from a program of a local Pakistani NGO (unrelated to DEC programs) which has been identified as a good practice project by the UNISDR. A good practice example of a national DRR system (from Bangladesh) is also appended. Finally, a list of documents is appended containing DRR good practice examples from around the world, many of them relating to DEC member agencies. The level of details provided here has depended on the amount of information provided by different agencies and documents. Further details for all these examples can be obtained directly from the relevant agencies.

Evidence of resilience enhancement

This section reviews the extent of resilience enhancement DEC member NGOs have contributed at each of the four levels identified in the conceptual framework in Chapter 2—prevention, mitigation, avoidance and response. As mentioned there, prevention and mitigation activities are more durable in nature. However, these two types of DRR work often involve large-scale reforestation and embankment construction work outside communities, especially for dealing with larger floods. Such projects have been missing from the DRR programs of DEC member agencies. However, this is not surprising because many NGOs do not engage in such projects globally because of lack of funds but also because of their community-focused outlook.

Some DEC member agencies are engaged in advocacy work to encourage prevention activities at the global level (e.g., climate change related advocacy) and mitigation work within Pakistan, e.g., Oxfam. However these activities will only gradually produce results. Thus, to-date, DEC member agencies have not built community resilience against larger floods through the two most durable forms of DRR work.

However, several agencies have undertaken prevention and mitigation activities within communities, e.g., Christian Aid's housing construction, Oxfam's reforestation programs within villages (prevention) and the micro-irrigation construction, repair and maintenance activities done by CAFOD, Save the Children, Islamic Relief, and World Vision. Agencies have also focused on CBDRM, i.e., avoidance planning work. Since most of this work has started within the last one year, there has been little time for longer-term impact to occur and be documented properly. None of the agencies have so far undertaken a formal evaluation or impact assessment of their recent DRR work. There was no time to undertake any meaningful and in-depth impact assessment of any particular agency's DRR work as part of this study. Nor has there been a flood which would test the effectiveness of such work in practice since most DRR programmes were started after the 2011 floods. Thus, the analysis here is mainly based on the professional judgments and physical observations of the study team, and the opinions of the agency and partner staff members and communities. The Team Leader and other team members have been repeatedly visiting these flood-affected areas, including with many DEC member agencies, since November 2010. These repeated visits enhance the validity of their judgments and also serve as rough baseline and repeat measures of the trajectory of resilience within communities for the review team.

Based on these repeated visits, we see impressive evidence of CBDRM work increasing community resilience in a large number of villages compared with what existed in a typical village in our earlier visits. This judgment is revalidated by the opinions of community members themselves and agency staff. As mentioned earlier, communities feel that this work has helped them to organize themselves better and develop better linkages with government and other external stakeholders. The main weaknesses of this CBDRM work is that women are often less involved in it and the number of villages covered is a small percentage of all vulnerable villages in a district. In the absence of district hazard maps, it is also difficult to immediately figure out whether the most vulnerable villages have been targeted. Similarly, mainstreaming of DRR in different sectors has also enhanced resilience in various ways as discussed in detail in the DRR mainstreaming section. The photos above also graphically illustrate the increased resilience through various such interventions. However, again, the number of villages covered is small and it is not clear if the most vulnerable villages have been covered. But based on the work seen, the review team is reasonably confident in asserting that the communities that have been covered will be able to deal with at least minor and medium floods in a more prepared and systematic manner than in the past. They will also be able to link more easily with government and other external stakeholders which will make avoidance and response access efforts more systematic and smooth.

In reviewing the evidence for enhanced resilience, it is also important to keep in mind the challenges faced by NGOs in implementing DRR work. The initial lack of knowledge and skills among agencies and partners on DRR was a major challenge in enhancing community resilience. However, gradually, it is being overcome and presently both agency and partner staff seem well-versed in DRR programming. Lack of coordination on DRR issues was initially an issue which has been rectified with the establishment of the DRR Forum though coordination challenges remain with the government and UN agencies. The lack of political commitment to DRR and the insufficient funds and capacity available within government agencies is arguably the biggest challenge faced by DEC member agencies presently followed by the lack of adequate funds to implement all the mitigation and preparedness work required in the most vulnerable regions of Pakistan. Access issues also continue to reduce the effectiveness of all NGO programming in Pakistan.

Centralizing DRR in sector selection

As mentioned earlier, agencies have focused on mainstreaming DRR in early recovery and development program sectors. We fully support this approach but also suggest a complementary approach which can help agencies and communities make much more strategic use of DRR perspectives and select sectors for specific villages more strategically. This approach involves centralizing DRR in sector selection decision-making for recovery and development programmes, i.e., making increasing community resilience as a central criterion for selecting sectors for recovery and development programming for specific villages.

This approach will require much greater NGO coordination than being done currently at the district levels in Pakistan. The starting point of this approach in any district would be a joint exercise by NGOs, the government and other stakeholders to conduct rapid hazard and vulnerability analysis for the district with the active participation of community representatives. This would help identify the most vulnerable parts and communities in the district, the type of natural and human-made hazards they face, the possibilities for extra-village preventive and mitigation activities to benefit several villages and other relevant aspects. Agencies could then select the least resilient villages for their early recovery and development programs in each district. For each village, agencies and communities would then identify the sectors that will enhance resilience there most durably (based on the prevention-response continuum) and cost-effectively based on the hazard and vulnerability characteristics of each village. We consider below the main recovery and development phase sectors based on their value-for-money, cost-effectiveness and durability. Relief sectors are not considered here since they must be selected based on life-saving considerations in the immediate aftermath of disasters. This analysis applies mainly to multi-sectoral agencies and not sector-specialist agencies (in areas such as health, education and children's issues) which will understandably focus mainly on their areas of specialization.

Housing:

Housing is usually among the most expensive NGO interventions on a per-family basis and essentially focuses on individual family-level mitigation. Christian Aid is supporting Muslim Hands, Church World Service-P/A, and Norwegian Church Aid to construct around 1,000 durable and robust new homes for flood affected persons in Sindh. It uses several technical properties to enhance shelter resilience and improve the general quality of habitation, privacy and dignity: The agency uses durable materials e.g. kilned adobe bricks, cement/(river) sand mortar, damp-proof coursing, reinforced concrete foundations, and masonry footings to a depth of at least 2ft. The house is constructed upon a 2-3 ft. raised plinth platform and has a raised ceiling height of 11ft to improve air circulation and internal temperature. It has an attached latrine and washroom, a separate well ventilated kitchen and has an expected life span beyond 25 years. Many householders are fixing shelving to internal walls as 'safe-place' for documentation and valuable items during flooding. The unit cost ranges from \$1500-2,000.

Despite this high cost, even concrete houses may provide limited mitigation during larger floods where water levels reach 8-10 feet in villages, as common during the 2010 floods. In such floods, families even with concrete houses will probably be unable to avoid relocation, though the house itself may survive, reducing repair and maintenance costs after the floods. Given these limitations, housing can obviously be provided to a small number of families only. Hence there is a greater need to situate such projects strategically in areas where they can enhance resilience most. Houses would seem most suitable for villages which face frequent minor-to-medium level riverine or flash floods (multiple times in a decade) and where there are no larger structural mitigation options available which would could protect a larger number of families at a lower per unit costs than houses. Where the number of families is large and the threat of flooding occasional (e.g., in areas affected only by breach floods), the potential of larger structural work to eliminate breaching should also be investigated to see whether they can enhance mitigation for a larger number of families at a lower per capita cost than housing. The downside of larger mitigation schemes is that they will not provide the same level of convenience, dignity and privacy to families as housing. Thus, a careful analysis is required in each situation to identify the most suitable intervention in consultation with communities.

Livelihoods activities

These include agriculture, livestock, fisheries, small business, cash-for work, vocational activities etc. The per-family costs thus vary considerably although many such projects cost between \$250-500 per family. By increasing people's incomes, livelihoods activities allow them to obtain a variety of avoidance and mitigation services, e.g., latrines, concrete houses and savings to facilitate relocation during floods. Thus, livelihoods activities are multi-purpose and also have multiplier effects on assets and incomes, unlike construction interventions. Many of the assets associated with livelihoods activities, e.g., tools and animals, are more portable during floods than construction interventions. In addition, livelihoods activities can also facilitate changes in power and resource inequities within and beyond villages. Women, minorities and other excluded groups often possess fewer livelihoods options. Livelihoods activities can provide powerful avenues for enhancing their socio-economic status. Poor communities are also often engaged in exploitative relationships with rural elites. While advocacy for land reforms is

clearly needed in Pakistan to eradicate such exploitation, it is a long-haul option. In the meantime, strengthening livelihoods activities can be a powerful tool for reducing the dependence of poor communities on rural elites. Poor communities often also get low returns in markets from middle-persons Livelihoods activities can again be powerful tools to address these inequities through value-chain analysis. Finally, livelihoods activities can also be useful for addressing environmental degradation, ecological change and resource-based conflicts. However, in order to address all these issues through livelihoods activities, agencies must conduct much more in-depth community vulnerability analyses than common presently. A few agencies are already undertaking such in-depth analysis, e.g., CAFOD/CRS. The good practice examples in the appendix from Concern and PODA also provide insights on undertaking such in-depth analysis. In short, livelihoods activities are the most versatile, flexible and cost-effective way of enhancing resilience among vulnerable communities.

Water and sanitation

In the Pakistani context, water and sanitation interventions in the early recovery and development phases usually consist of hand pump installation and latrine and washing area construction which are used by multiple families in practice even if agencies allocate them to individual families. On average, these types of intervention cost around \$500 although there is considerable variation based on design and geographical area. Thus, these construction activities are much cheaper on a per-family basis than housing. Water and sanitation activities can be considered “avoidance” activities since they help communities avoid exposure to disease-carrying vectors after floods and during normal times. They also provide convenience, dignity and privacy to families. However, they lack the multiplier-effect, self-reliance and multi-dexterity inherent in livelihoods activities. The main question in including water and sanitation activities is whether to provide them directly or focus on livelihoods activities (combined with public health awareness-raising) to allow communities to construct these services themselves over 2-3 years as their incomes increase. Clearly, where there is acute shortage of clean water or the sanitation situation is very poor due to high population density and there is clear documented evidence of high public health problems, the livelihoods option would be unsuitable as mortality and morbidity problems could be high in the intervening period. However, where the water and sanitation status is not so poor and the main purpose of water and sanitation activities is providing convenience, dignity and privacy, livelihoods support in conjunction with hygiene promotion may be a better choice to address these water and sanitation concerns.

CBDRM and health, nutrition and hygiene promotional activities

These are very low-cost activities on a per-family basis since they target whole communities and generally consist of low-cost inputs. The focus of such activities is mainly on avoidance, i.e., avoiding the floods and public health epidemics, within communities. Due to their low cost, and high avoidance benefits, such activities would seem useful for almost all contexts. However, there is a need to integrate nutrition promotional activities along with hygiene promotion given their complementary status and the low nutritional levels in many parts of Pakistan.

Mitigation schemes

NGO DRR programmes generally include micro-mitigation schemes within villages. However, it would be useful for agencies to also evaluate the potential of medium-sized mitigation schemes which may benefit thousands of families across several villages. NGOs could make such schemes affordable by pooling in their own money for construction work in several villages or by developing partnerships with other NGOs. Done with proper analysis and a high degree of consultation, especially with communities, such mitigation schemes could also be highly useful in addressing ecological change, environmental degradation, and conflicts over resources.

Sector	Cost per family	Focus	Type of resilience
Housing	High	Family-level	Mitigation
Water and sanitation	Medium	Groups of families	Avoidance
Livelihoods	Medium	Family or groups of families	Multi-purpose
CBDRM and promotional activities	Low	Whole community	Avoidance
Mitigation	Variable	Villages or groups of villages	Mitigation

Based on this discussion, the review team recommends livelihoods, CBDRM and promotional activities as standard components for all early recovery and development work for multi-sectoral NGOs and housing, water/sanitation and mitigation work as relevant according to context.

Conclusions

This chapter has highlighted the wide range of activities that all DEC agencies are undertaking in the area of advocacy, DRR mainstreaming and CBDRM to increase community resilience. The establishment of the Pakistan DRR Forum has also enhanced the ability of NGOs to influence the national DRR system. The policy and programme work being done by the DEC member agencies in the area of DRR is generally well linked with the DRR framework developed by the government which emphasizes hazard analysis, early warning, risk reduction, contingency planning and response capacity development. All policy and programme work being done by DEC member agencies aims to strengthen the government's DRR framework and the DRR policy currently being drafted. The most important contribution of DEC member agencies has been in the area of CBDRM which has built community capacity and confidence about dealing with disasters systematically and collectively. However, the DRR interventions that INGOs are implementing are more designed to increase communities' resilience to small and medium floods due to shortage of funds, while floods of greater size, intensity and impact are quite likely and would overwhelm the current DRR structures put in place. Thus, despite the impressive accomplishments, several areas of improvement can be identified as follows:

- DRR work is mainly being done as part of emergency work and has not been fully incorporated in development work. This means that DRR work, which needs to be on-going and sustained, will reduce significantly once the emergency work is over. It also means that the linkage of DRR work with issues like ecological change, conflict, and other

aspects of long-term agency programming is weak

- The DRR work mostly focuses on avoidance and response stages and ignores the more strategic and durable forms of prevention and mitigation, e.g., the CBDRM work is mainly about contingency planning rather than the full spectrum of DRR work. Agencies must also centralize DRR in their sectoral selection decision-making for recovery and development phases and conduct deeper community vulnerability analyses to facilitate more sophisticated livelihoods and other DRR work and address deeper issues like power inequities within and beyond villages, resource conflicts, ecological changes etc.
- The number of villages covered in any district by all NGOs put together is usually a small percentage of all vulnerable villages in a district. Consequently, a very large percentage of the vulnerable population in Pakistan remains unreached by DRR work.
- While the DRR Forum is a significant step towards improving coordination, coordination among NGOs at the district level is informal and limited with the result that agencies have not developed more broad-based DRR perspectives beyond community levels.
- The involvement of women in CBDRM activities is generally low even where women CBOs have also been set up. Women are less aware about the details of contingency planning exercises as well as DRR concepts and strategies.

C HAPTER 4: LESSONS AND RECOMMENDATIONS

The previous chapters have described the strengths and weaknesses of the national DRR system in Pakistan as well as that of the DRR work being done by DEC member agencies in Pakistan. This chapter draws lessons from previous chapters and provides recommendations for enhancing the effectiveness of DRR work by NGOs in Pakistan. It also looks at how well agencies have incorporated lessons from previous DEC studies, in particular the Tsunami DRR study.

Incorporation of lessons from the DEC post Tsunami DRR study

The following were the main lessons presented in the Tsunami report:

1. Effective interventions on DRR have the potential to strengthen grassroots institutions at the local and district level as well as create strong interface between grassroots community organisations and local authorities making local governance more inclusive and participatory.

This lesson has been largely incorporated by the agencies. As mentioned earlier, twelve out of the fourteen agencies are involved in village-level CBDRM work and the formation of village-level CBOs is the cornerstone of the CBDRM work. A key component of CBDRM work mentioned in the previous chapter was the development of linkages between the CBOs and external government and other agencies so that the CBOs could gain early warning and aid information and access government departments to gain the required information. ActionAid's network in Thatta takes this work a level higher by linking several CBOs together and enhancing their capacity to undertake advocacy and coordination work.

2. While village level hazard maps and preparedness plans have been developed unless these lead to practical mitigation action people will lose interest in keeping these updated.

Micro-mitigation work has been part of the CBDRM work of many agencies, including building of roads, bridges, culverts and protective bunds within target villages. However, in many cases, the vulnerability of villages is linked to a larger vulnerable structure which is too big for agencies to construct or repair. In almost every village, people mentioned the need for constructing or repairing such bunds. While the agencies may not have the funds for such work themselves, such points of vulnerabilities can be mapped as part of the hazard analysis for villages. Agencies and villagers themselves could then advocate with bigger donors and government to have those mitigation works done.

3. Interventions which are based on strong partnership and links with local organizations including private sector (banks/financial and insurance companies) were far more likely to succeed than one-off asset distributions.

Eleven of the fourteen agencies were working through local and national NGOs. This will build the capacity of local/national NGOs and enhance the sustainability of DRR work in Pakistan. In addition, some agencies have also attempted to link with the private sector. For example, CARE is aiming to implement micro-insurance and SMS-based early warning schemes in partnerships with private insurance and mobile phone companies. However, this is an area where more effort is still required by agencies.

4. Disaster preparedness has been mainly focused on preparedness for emergency response, and that too, with focus on Tsunami like disasters. So far, with a few exceptions, not enough attention and investment has gone into early warning, preventive and mitigation measures and recurring disasters like floods and droughts.

This is a weakness that had been noted for this response too in the last chapter. The CBDRM work generally focuses on avoidance and response stages and does not address mitigation and prevention stages of DRR in the case of most agencies. While much of the mitigation and prevention work may be beyond the budgets of NGOs, they could still identify the need for such work in their targeted villages and then advocate with the government and larger donors to undertake those tasks. With respect to multi-hazard analysis, the track record is good during this emergency as almost all the CBDRM work being done focuses on multiple hazards and not just floods.

Lessons Learnt

Advocacy-related

- The attention given by governments and the resources allocated to DRR work is determined by political factors and the quality of governance prevalent in a country. Since disasters affect poor people disproportionately, there is a strong likelihood that governments may neglect DRR work in their priorities. Thus, ensuring sufficient allocations for DRR requires mobilizing public opinion in its favor and developing strategic coalitions across society

Coordination-related

- Given the enormous scale of vulnerability in Pakistan, individual agencies cannot play a very effective role in DRR work unless they pool in their resources and coordinate more effectively, especially at the local level

Program-related

- Building resilience within communities and strengthening DRR work within them requires long-term, on-going effort spread over more than 1-2 years.
- While NGO CBDRM programs generally focus on contingency planning for avoidance and response, the most durable and sustainable form of DRR work relates to prevention and mitigation work

- Women and minorities are generally more vulnerable to disasters due to their immobility and low empowerment but often still possess high skills and motivation for DRR work.
- The village-level may not be sufficient for carrying out CBDRM work given the large number of highly vulnerable villages in Pakistan.
- Multi-sectoral, integrated interventions in the same community, e.g., shelter, latrines, raised pumps, village embankments as well as the 'Community-Based Disaster Risk Management software package' are most likely to truly improve resilience in the communities but this requires greater funding and coordination from donors.

Recommendations for DEC agencies

The recommendations here are arranged separately for advocacy, coordination and programming to help agencies prioritize them better. The study team has not ranked the recommendations in order of priority as the priorities may differ for different agencies with different mandates, approach and work focus. However, the team sees the recommendations about greater coordination at the district level to undertake joint hazard analysis and then enhance resilience by centralizing DRR in sector selection decision-making, enhancing the involvement of women and other excluded groups in DRR work and including DRR in long-term programmes as highly critical.

Advocacy-related

Recommendation 1: Enhance campaigning related to DRR through public communication and mass media work and by building strong coalitions within civil society and the private sector (e.g., insurance companies and those dependent on business from rural areas) collectively through the DRR Forum.

Recommendation 2: Undertake policy and lobbying work collectively through the DRR Forum with the government to encourage the development of a seamless, consolidated and rational national DRR structure under the leadership of the NDMA, PDMAs and DDMA at the federal, provincial and districts levels respectively; Lobby that these agencies have adequate resources themselves as well as monitoring, convenorship and matrix management authority over other relevant agencies involved in hazard analysis, mitigation, prevention and monitoring work so as to enhance synergy across all DRR activities.

Recommendation 3: Undertake policy and lobbying work collectively through the DRR Forum with the government to enhance the quality of hazard analysis, early warning, prevention and mitigation work as well as genuinely participatory environmental impact assessment of development projects, so that they do not reduce mitigation and enhance people's vulnerabilities.

In implementing these three recommendations related to advocating with the government, the overall political environment of Pakistan must be kept in mind as extensive criticism of the government can lead to backlash in the form of visa and access problems. Undertaking the advocacy through the DRR forum will help in shielding individual NGOs to some extent from such backlash. However, it is also important that the advocacy not be too critical and be constructive. A useful approach may be to go beyond advocacy and try to obtain funding so that NGOs can actually help the government undertake some of the work that NGOs are suggesting in their advocacy work. For example, a group of NGOs working in a district would jointly get funding to work with the government to undertake district hazard analysis. NGOs could also channel some of their suggestions to the government through donors by first convincing them of their utility and by encouraging donors to enhance their funding for DRR work to both governments and NGOs. Finally, while there are good reasons for making NGOs wary of undertaking strong advocacy in Pakistan because of the risks of backlash, it is pertinent to note that DEC member NGOs that undertake regular constructive advocacy on DRR issues do not necessarily face more bureaucratic hurdles than agencies that do not. Moreover, many of the issues related to DRR advocacy, such as advocating for greater coordination and funding for government agencies, are not as politically sensitive in Pakistan as issues like religious freedom and equality; women's reproductive rights etc. Thus more incremental experimentation with DRR advocacy seems feasible without carrying major risks.

Recommendation 4: Lobby with donors to enhance their allocations for DRR work not only within their emergency funds but also long term development funds and for donors to coordinate better with each other so as to provide more comprehensive and effective funding streams to NGOs that will allow multi-sectoral work at community levels.

It would be helpful for the DRR Forum to investigate the possibility of having regular joint meetings with donors in Pakistan so that greater coordination on DRR issues can be achieved among and across donors and NGOs. Greater advocacy with donor head offices through the NGO's own head offices may also be helpful. In cases of donors not willing to fund DRR work directly, it would be useful to give a DRR bias to their work in other sectors, which can be done without large extra costs. For example, NGOs able to get funds for agriculture work could include drought resistant and short maturity crops suitable for flood-prone areas. NGOs able to get funding for health and education could similarly mainstream DRR concerns in those proposals without much extra costs. Finally, educating donors about the importance of DRR in increasing the sustainability of the sectoral work that they may be funding (i.e., by making it less likely to be washed away by floods) may also help in obtaining DRR funding directly or indirectly. Finally, the money being channeled by donors for climate change adaptation can easily incorporate DRR concerns. The UN's Reducing Emissions from Deforestation and Forest Degradation (REDD) mechanism is also a source of funds for DRR activities.

Coordination-related

Recommendation 5: Centralize DRR in sector selection decisions by enhancing coordination at the district levels among NGOs and with government (while building capacity of DDMA) to develop district-level hazard and vulnerability analysis with the active participation of communities and addressing them systematically through jointly exhaustive geographical division of labor for DRR work

Recommendation 6: Pool resources to undertake mitigation work beyond the community level since the most serious vulnerabilities are created by structures outside communities.

These two recommendations are linked to the centralizing DRR in sector selection approach discussed in Chapter 3 and can be instrumental in more strategically enhancing the value of DRR work and using resources more cost-effectively and with greater value for money. The “how to” of this recommendation has been addressed in detail in Chapter 3. In order to implement this approach, individual agencies should first clarify their own commitment and strategy for such an approach, then raise the issue in the DRR forum in Islamabad and bilaterally with interested agencies, initiate discussion with donors to get their support and finally encourage staff within districts to set up formal and informal avenues for discussing the detailed steps needed for taking the approach forward. NGOs could also put in joint/ consortium proposal to possible donors such as the World Bank for these large engineering projects.

Programme-related

Recommendation 7: Undertake CBDRM and DRR mainstreaming work not only as part of emergency projects but also as part of regular long-term development work

The DRR CBDRM approach gels well with the general mobilization work that agencies do as part of their long-term development work, e.g., undertaking PRAs and forming village committees and enhancing their capacities. Integrating DRR work with development work will ensure the sustainability of not only DRR work (given the longer time period over which it will be done) but also development work by disaster-proofing it with the incorporation of DRR concerns. For example, schools will be built more disaster-resilient, and livelihoods work will focus on more drought and flood-proof livelihoods activities. Finally, the integration of DRR work with development will also help DRR work link with issues like climate change, ecological change and resource-based conflicts which cannot be tackled in short duration emergency work. This will require emergency staff at various levels within the agency to convince senior managers and development staff about the importance and value of integrating DRR with development work. Convincing donors about how this integration will help disaster proof the money they spend on development work will also be helpful.

Recommendation 8: Ensure that village DRR plans focus not only on contingency planning for avoidance and response but also prevention and mitigation.

This is again linked to undertaking detailed district-level hazard and vulnerability analysis which may identify medium-scale mitigation projects which benefit several villages and which NGOs may be able to afford by pooling their resources allocated to several villages or by linking up with other NGOs. Even if some of these activities may be beyond the capacities of individual

agencies, the documentation of related needs at village levels will help identify areas for advocacy with donors and governments.

Recommendation 9: Ensure that women, minorities and other excluded groups are fully involved in DRR work and work to enhance their empowerment within communities.

Addressing the needs of these groups is a challenge in Pakistan's conservative culture. However, by no means is it an impossible task, as revealed by the PODA approach in the appendix. The building blocks of such an approach include in-depth vulnerability analyses within communities and separately with these groups to understand the particular constraints and opportunities available for addressing the needs of such people, identifying local people interested in championing the rights of these groups within communities, e.g., teachers and extension agents and enhancing the socio-economic status of these groups with appropriate livelihoods work, preferably with a value-chain component to leverage the impact of livelihoods work. Linking such groups with outside resources and stakeholders and providing them with timely information are other useful lessons from the PODA example for helping such groups.

Recommendation 10: Increase the number of villages covered through CBDRM work

Several strategies could be employed to achieve this recommendation, e.g., through the use of mobile resource centers, development of networks of communities which help train other communities and by undertaking CBDRM work at the level of clusters of 4-5 nearby villages with similar hazard profiles who may be able to deal with disasters more effectively by pooling their efforts and resources within the framework of cluster-level CBDRM plans.

APPENDIX

1. List of abbreviations

CBDRM	Community-based Disaster Risk Management
CCA	Climate Change Adaptation
DDMA	District Disaster Management Authority
DEC	Disasters Emergency Committee
DRR/M	Disaster risk reduction/management
EWS	Early warning systems
FFC	Federal Flood Commission
HFA	Hyogo Framework for Action
KP	Khyber-Pakhtunkhwa province
LBOD	Left Bank Outfall Drainage Project
MKRC	Mobile Knowledge Resource Centre
NDMA	National Disaster Management Authority
NDMC	National Disaster Management Commission
PDMA	Provincial Disaster Management Authority
PMD	Pakistan Meteorological Department
UNDP	United Nations Development Programme
UNISDR	UN International Strategy for Disaster Reduction
UNOCHA	UN Office for Coordination of Humanitarian Affairs
WASH	Water, sanitation and health

2. Good practice examples

Christian Aid: Extending DRR outreach to larger numbers of isolated communities:

Given Pakistan's large geographical size and population and the limited budgets available with agencies, a major problem is covering a high percentage of vulnerable villages with disaster early warning and preparedness/contingency planning information. With the objective of reaching a larger number of villages with DRR information than the one where it is implementing

on-going emergency projects, Christian Aid's partner CWS-P/A has established a Mobile Knowledge Resource Centre (MKRC) to raise awareness on DRR in high disaster risk areas with the objective of "Reaching the Unreachable". The mobile unit (consisting of a truck) carries trainers, education materials, and hands on tools to each village for two days to provide knowledge about DRR and help communities develop contingency plans. The MKRC visits schools to educate students, teachers, and community members on how to prepare for and deal with possible natural disasters. The MKRC project is mandated to focus on equal number of boys and girls schools (wherever possible) and the majority of school teachers trained through DRR and ToT activities are women. The programme employs the KIDA knowledge Management Model (Knowledge-Interest- Desire- Action). With respect to knowledge, basic demonstrations models /posters are prepared for providing the basic information about DRR. Interest is elicited from the communities by providing information about the serious impact that disasters can have on communities. Desire is generated as specific model of disaster resistant houses are provided to enhance the willingness of the participants. Action is encouraged by undertaking practical exercises on mapping, non structural mitigation and drills etc.

ActionAid and Merlin: Exiting from communities sustainably

Given the short duration of emergency programmes, ensuring their sustainability and exiting in a way which allows local groups to continue the work is a major problem for NGOs.

Almost all DEC member agencies are setting up CBOs and training them on CBDRM activities. However, ActionAid has taken this exercise further to enhance the sustainability of this process by helping link the different CBOs into a district-wide network called the Thatta disaster Response Network comprising of male and female social activist and volunteers in flood-affected villages. The network was set up in August 2011 to address the issues of flood affected areas and provide strategic support to community based organizations. The network includes twenty four male and female community based organizations in Thatta district. Its mission is taking coherent efforts for disaster affected communities without adapting discriminative attitude and providing equal opportunities for sustainable development. The main objectives of the network are:

- To raise voice and conduct information advocacy program (Dialogue, Seminars, and workshops) regarding the rehabilitation of flood affected masses.
- To strengthen and coordinate CBOs of flood affected villages of district Thatta.
- To organize different campaigns and demonstrations regarding DRR, Watan Card instalment, Women rights and Women protection issues.
- To coordinate with Government and Non- Government organizations efficiently in pre-during and post disaster situation.
- To take lead in awareness rising in communities for Disaster Risk Reduction initiatives in village development plans.
- To strengthen the capacities of vulnerable communities in DRR for better and timely Emergency Response and Management.
- To contribute in establishment of local Level Early Warning mechanism, for timely and valid dissemination of early warning at local level to mitigate the effect of possible disaster.

Merlin's emergency health programme focuses on response, recovery and resilience. In the relief phase, Merlin provided life-saving health care in partnership with the Ministry of Health. With sustainability in mind, Merlin activities are now focusing on enhancing the resilience and capacity of the public health system to provide life-saving activities on its own in the future. This effort consists of four dimensions: i) providing training to government health staff, ii) providing essential drugs and equipment, iii) helping the development of various health systems such as epidemic early warning, disease surveillance, health information system, referral system, iv) rehabilitation of health facilities. According to Merlin, the results achieved so far are encouraging and have laid the foundation for improved public health system services in line with Government of Pakistan Ministry of Health, NDMA and UN health cluster system. In 2012, Merlin is focusing on enhancing resilience further by gradually handing over services to the government, strengthening community-based primary health care system by enhancing the capacities of government lady health workers and improving linkages between communities and health service providers.

Concern and CARE: Adding value and protection to livelihoods

Livelihoods support is one of the main priorities identified by communities given the multiplier effect and enhancement of self-reliance inherent in such activities. However, the profitability of these livelihoods system also depend on the power of communities in purchase and sales markets and the role of intermediary agents on whom communities depend. Often, communities get very low return for their livelihoods activities as middle-persons appropriate the bulk of market returns. In addition, climate change and environmental degradation are raising increasing concerns about the environmental sustainability of community livelihoods activities. Finally, disasters are increasing the risks of losses associated with livelihoods activities. Several DEC member agencies and their partners are implementing innovative programmes to address each of these three problems.

Concern is implementing livelihoods early recovery and rehabilitation projects (both on-farm and non-farm) in South Punjab of Pakistan. Before starting the project activities, Concern is undertaking a Market Survey and Value Chain Analysis to identify potential trades/enterprises, services required over the time of project period and the existing gaps in them. The objectives of the Concern exercise are: i) To carry out market survey and identify potential trades in which people are engaged or potential to be engaged for their livelihoods in target communities, ii) To carry out Value Chain Analysis (VCA) for identified trades, iii) Identify the technical and vocational skills trainings need for potential male and female trainees which need to be addressed for self and wage employment opportunities, and iv) o assess and recommend best methodology/practice to provide assistance/support to communities to build their entrepreneurial skills at Tehsil/UC level. These VC activities can help in enhancing the values that accrue to communities through livelihoods activities by i) enabling community organizations to take up additional marketing, logistical functions to capture the value embedded in these functions which may currently be accruing to middle-persons, ii) Enhancing overall system efficiency since there are opportunities for reducing costs and increasing efficiencies on the market if

value chain stakeholders – large and small – work together; iii) Helping enhance product quality and product differentiation in line with market expectations, iv) Enabling communities to meet increasing social and environmental standards, v) Facilitating an enabling business environment for communities, e.g., through provision of government services, advocating for suitable legislative and procedural changes for the benefit of rural communities and enhancing the rule of law and security

Finally, in view of the increasing risk of losses associated with floods, CARE is planning to implement a micro-insurance scheme for farmers in flood-affected areas. This project plans to launch disaster micro-insurance program, which will serve as a tool for climate change adaptation and social protection for enhancing post-disaster food-security in the country. It is envisaged that disaster related micro-insurance will bring timeliness and reliability into humanitarian interventions, compel communities to be less dependent on aid and be more vigilant in protecting and reporting damages to their food sources. In this regard, Care International intends to work in collaboration private sector insurance companies including AsiaCare and Eastern Federal Union for micro-insurance services for flood and drought.

Plan International: Collaborative Child-focused CBDRM work

The overall aim of this project was to build capacity and mainstream *Disaster Risk Reduction* in Plan and partner programs in Pakistan, and make communities more resilient to hazards. Building on its child-centered community development approach, the initiative has focused on mobilizing communities and young people /children to take an active role in assessing the risks in their own community/environment, analyzing the causes and coming up with mitigation measures and preparedness plans, that protect them from hazards and vulnerabilities. This project envisaged building the capacity of the local government functionaries and civil society organizations in all project districts, aiming to instigate a community based child-centered approach to disaster risk management on sustainable footings.

The project has been implemented in close collaboration with National Disaster Management Authority (NDMA) of the government of Pakistan with the aim of formalizing a relationship with them, and supporting local administration and elected governments in mainstreaming viable community based disaster risk reduction strategies. Simultaneously, the project has entailed partnering with local organizations while aiming to build upon the competencies of its partner organizations that are already operating in the project districts. The results of the capacity building initiatives, both for local organizations and government functionaries, will direct the agency and its partner organizations to formulate a long term disaster risk management strategy within the framework of sustainable development with a focus on children. These initiatives have contributed in bringing relevant stakeholders together, which may include; community organizations, youth, children, development organizations, and relevant government functionaries as outlined in the National Disaster Risk Reduction Framework 2005 and Local Government Ordinance 2001.

In 2008-09 the agency with support from Rural Development Policy Institute set out on a voyage to understand the dimensions and dynamics of hazards faced by the poor communities,

vulnerabilities they suffer with and their subsequent capacities. In this journey the larger development contexts and actors and their conventional and potential roles, were also come across to. The outcome of this expedition was the study on “Neighboring Risk” and detailed development profiles and indicative plans of districts of Layyah, Muzuffargarh, Rajanpur, Ghotki, Khairpur, Thatta and Vehari were studied.

By taking the fundamental equation of alternative perspective on disasters “Neighboring Risk” proposes a Human Development approach for building the capacities and breaking the poverty-vulnerability nexus of disaster prone communities. This approach takes capacities as development options that must be increased to address vulnerabilities and minimize disaster risks. Neighboring Risk proved to be a launching pad for a research to development and DRM movement. It leads to a comprehensive capacity building programme “Child Centred Disaster Risk Management”. The CCDRM programme aimed to capacitate the three players the communities, their representative civil society organizations and governments/ state.

The project has sought to make voices, knowledge, experiences, capacities and vulnerabilities especially of children in vulnerable communities part of the district/decentralized planning and development and disaster risk management in the identified districts. By doing so, it is anticipated, that the vulnerable communities and especially children shall no longer be taken as being mere ‘helpless victims’ or ‘project beneficiaries’. The project activities in the project have revolved around: 1. Safe and Resilient Communities, 2. Capacity Building of Civil Society organizations, 3. Capacity Building of local government officials and working towards safer Schools, 4. Mainstreaming of the DRM in Plan Pakistan’s development programs, 5. Development of vulnerability analysis and preparedness plans within selected communities.

Empowering Pakistani women in DRR programming¹²

Given Pakistan’s conservative culture and the low empowerment of women, involving women in DRR and other project activities is a huge challenge for NGOs. However, Pakistani national NGOs have made impressive strides in this regards in the area of DRR which have been recognized as good practices by the UNISDR.

Following the Northern Pakistan 2005 earthquake, numerous legal rights issues emerged within affected communities, including many that involved women's and girls' rights related to compensation, victim assistance, litigation on inheritance and property ownership. The Potohar Organization for Development Advocacy (PODA) undertook a project in December 2005 aiming to sensitize and educate communities on their legal rights, with a particular focus on women and girls rights in disasters in the earthquake-affected districts of Bagh and Chakwal. As many families lost males in the 2005 earthquake, the women left behind were often not culturally ready, properly educated or even encouraged to work to support themselves and to compete with other male relatives for relief and property rights. PODA identified and brought together

¹² This example is taken from: Gender Perspective: Working Together for Disaster Risk Reduction Good Practices and Lessons Learned Geneva, June 2007, UNISDR For additional information on this initiative please contact: Sameena Nazir, poda_pakistan@yahoo.com

core groups of youth and women, providing them training on human rights and women's issues which ultimately evolved into a Women's Rights Network to enhance their rights, income options and future resilience to disasters. It also partnered with local radio stations to air human and women rights programmes. PODA also organized volunteers into groups of young boys and girls who helped organize legal sessions and identify victims of post-earthquake violence, especially women and arrange community theatres and dialogues.

The PODA initiative had four components: (1) expanding legal rights awareness for Kashmiri communities, (2) helping women create tools for understanding and defending their rights, (3) helping youth develop an understanding of basic needs and basic rights, and (4) linking women survivors of violence to support and service networks. PODA trained a group of 20 Kashmiri women and men on how to organize legal rights awareness sessions selected locally based on their community leadership potential. After their initial training, they organized ongoing legal sessions for at least 20 new participants. The communities have been linked with legal experts for professional guidance regarding inheritance and property disputes. PODA also hired a local lawyer in Kashmir to provide legal information. In addition, PODA developed a legal manual in Kashmiri, Urdu and English with illustrations and guides for trainers. The ultimate goal is to create a core group of women and youth who can continue to talk about women's human rights issues on the radio.

In the opinion of the UNISDR, this initiative implements many good practices including basic gender analysis methodologies. PODA worked with women to identify their concerns, barriers, power relations and available resources that helped them ensure cultural appropriateness. The use of local youth helped ensure that they were able to bring about change within community cultural perspectives on women's issues. The approach ensured that women and girls are not only part of the project but also exert direct control over it from the start. By providing informational to them from the outset, women and girls felt more empowered to become directly involved in the project. A key innovative factor was the development of linkages between the participants and other networks of women and gender-minded professionals.

From the UNISDR's perspective, a key lesson learned from this initiative is the need to integrate gender analysis into all post-disaster response from the beginning. Involving women and youth in the programming from the beginning helped the communities develop a better understanding of the needs of women and children and take steps to address them. Another key lesson is the importance of making information available, understandable, relevant and timely to women and vulnerable youth from the beginning. The major challenge in this initiative was addressing cultural, religious and legal systems that perpetuate discrimination against women and girls. Partly as a result of the earthquake, there has been an opening up to aid workers in Kashmir, but equally there has also been a strengthening of traditional values. PODA addressed these concerns by identifying key partners in the community who can influence the degree of attention paid to women and girls in Pakistan and help elevate the status of women's post-disaster needs within community plans and priorities.

The national DRR system in Bangladesh—an example of (relatively) good practice¹³

While Bangladesh has made good progress on human development indicators recently, the majority of the population is still poor. The high frequency and impact of natural hazards is among the key factors perpetuating poverty. With the highest disaster mortality rate in the world,, Bangladesh lost more than half a million people from 1970 to 2005 in 171 disasters. Bangladesh experiences at least one major disaster every year, including floods, cyclones, earthquakes, tornadoes, river bank erosion, water logging, drought, salinity, storms, landslides, and tsunami. Floods are the most frequent disaster, Since independence in 1971, he understanding of disaster and its causes has been evolving from a perspective based on hazards to a focus on vulnerability; and the country's approach to dealing with them now include a wide range of activities such as disaster response, structural mitigation, improving human skills, augmenting community resources needed to cope with disasters, institutional efficiency, and, finally, a comprehensive approach.

Bangladesh exhibits good practices in many of the steps identified in the study's conceptual framework derived from the Hyogo framework. DRR governance is well coordinated. The Ministry of Food and Disaster Management is the main coordinating organ of the government directed by the National Disaster Management Council (headed by the Prime Minister). The Disaster Management Bureau is the focal point for disaster preparedness at national level, whereas various disaster management committees are responsible for DP at district, sub-district, and local level. Two key documents, i.e., Standing Orders on Disaster and a comprehensive plan (draft) are the sources of clarity for the roles and responsibilities of the various institutions and personnel involved in disaster preparedness. Disaster planning goes down to the district, sub-district and village cluster levels and is undertaken by disaster committees which bring together government officials, politicians, community members and civil society members. The presence of a functioning local government system enhances the accountability of such committees. There are good early warning systems for cyclones and flooding. Early warning information reaches to the community and household levels through a cadre of local well-trained volunteers. Shelters have been built in the most vulnerable places to help people escape disasters once the early warning has been disseminated. Investment in public health and safety nets has reduced disaster-related mortalities to a remarkable extent. There is a high level of awareness among the people about disaster preparedness because of national public awareness campaigns held by government and non-government organisations (NGOs). However, poverty is still a key challenge to people's ability to invest in DP at the household level. Although life-saving measures are in place, livelihood protection is an issue that remains a challenge to the nation. Although the institutional set up required for effective disaster preparedness and response is adequate at the national level, augmenting capacity and skills and decentralisation of authority are still priorities at local and district levels. Despite these limitations, Bangladesh has been more successful than other regional countries in gradually minimizing the losses from disasters.

¹³ Disaster Preparedness for Natural Hazards: Current Status in Bangladesh, ICIMOD, Nepal. Please see this document for further details on the Bangladesh DRR system

DRR lessons for Pakistan from Bangladesh:

1. Pluralism helped Bangladesh in sustaining an effective DRR system.
2. Political commitment is essential which can be encouraged through active citizen engagement.
3. Local governance is central to effective DRR at national level.
4. Develop local capacity as all communities have their capacity—and external actors only see the tip of the iceberg.
5. DRR investment can go in the locations that were affected by most recent disaster ignoring other risk-prone location or/and population.
6. Interface between people’s risk perception and modern early warning and local knowledge and scientific knowledge base is the key for effective defence against predictable disasters.

List of DRR good practice documents (all available online)

- Linking Disaster Risk Reduction and Poverty Reduction: Good Practices and Lessons Learned, A Publication of the Global Network of NGOs for Disaster Risk Reduction
- Good Practices and lessons learnt, DRR through Schools, ActionAid Nepal, 2010
- Disaster Risk Reduction Multi-Stakeholder Flood Mitigation in Malawi, A Case Study, Tearfund
- Building Disaster Resilient Communities: Good Practices and Lessons Learned, A Publication of the “Global Network of NGOs” for Disaster Risk Reduction, 2007, Geneva
- Disaster Risk Reduction Good Practices, ACT Alliance, Geneva.
- Gender Perspectives: Integrating DRR into Climate Change Adaptation, UNISDR, 2008
- Gender Perspective: Working Together for Disaster Risk Reduction: Good Practices and Lessons Learned, UNISDR, Geneva, June 2007

3. Checklists for assessing DRR program effectiveness

At National Level

HFA Pillars	Checklist of what a DRR system should look like at National level as a result of NGO advocacy
1. Ensure that disaster risk reduction (DRR) is a national and a local priority with a strong institutional basis for implementation.	<p>1. Legislation. This can be embodied in country’s overall governance system, or part of constitutions, or specific disaster act may exist. Strong legislative oversight exists and at work through parliament and/or other means.</p> <p>2. Policy. Specific policies exist on DRR or can be part of overall disaster management policies. Sector specific DRR policies or sector policies addressed disaster risk issues—and synergy between DRR and non-DRR policies. Policies also address needs of vulnerable groups like women, children, aged, persons with disabilities and marginalized communities.</p> <p>3. Institutions. A multi-stakeholder platform exists on DRR. Locally appropriate and effective institutions such as ministry, national committee, etc. exist to implement the national DRR</p>

	<p>legislation and policies.</p> <p>4. Investment. Allocated resources for DRR actions at various levels.</p> <p>5. Instruments. Guidelines and administrative directives exist to support decision making at various levels.</p> <p>6. Programme. A National DRR programme and partnership to implement this in place.</p>
2. Identify, assess and monitor disaster risks and enhance early warning.	<p>7. Basis for Risk assessment. Institutions exist to identify and monitor risk in short and long term basis;</p> <p>8. Early Warning. People-centred early warning exists, is functional and reaches all.</p>
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.	<p>9. Knowledge management system-formal or informal, it exists to grow a body of knowledge on disaster and risk reduction approaches. Incentives are provided for research on disasters.</p> <p>10. DRR is a part of the educational curriculum from primary level to higher education.</p> <p>11. Innovation is promoted through piloting and research.</p>
4. Reduce the underlying risk factors through prevention and mitigation.	<p>12. Body of knowledge exist on developmental implication of disaster risk.</p> <p>13. National Planning and Integration. DRR is part of the sectoral planning, annual budget. National Planning process to integrate DRR.</p> <p>14. Project (funded by national budget or internal fund or finance) formulation, approval and implementation process considers disaster risk.</p> <p>15. Key decisions and management are decentralised—and provisions to allow community to manage disaster protection mechanism such as embankments, shelters, etc.</p>
5. Strengthen disaster preparedness for effective disaster avoidance and response at all levels.	<p>16. Disaster response capacity exists at all levels, with clear mandate, contingency plan and resources.</p> <p>17. Post disaster coordination mechanism exists and functions at various levels.</p>

At Community Level

HFA Pillars	Checklist of what a DRR system should look like at community level after NGO CBDRM and mainstreaming DRR work
1. Ensure that disaster risk reduction (DRR) is a national and a	<p>1. Shared vision among community members on disaster reduction measures.</p> <p>2. Collective knowledge exists about DRM policies and</p>

<p>local priority with a strong institutional basis for implementation.</p>	<p>institutions—and people have knowledge about their rights to receive information and DRR resources. People are organised to promote social actions on DRR.</p> <p>3. Pluralistic institutional environment exists with dedicated inclusive institution in each community with social and legal mandate on DRR.</p>
<p>2. Identify, assess and monitor disaster risks and enhance early warning.</p>	<p>3. Community and livelihood groups have skills and equipments to understand and assess their risk.</p> <p>4. Community is organised and equipped to access and disseminate EW on time.</p>
<p>3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.</p>	<p>4. Community undertakes research on risk reduction measures.</p> <p>5. Culture of teaching younger people about risk reduction exists.</p> <p>6. Local building and development practices adopt safety and risk reduction measures.</p>
<p>4. Reduce the underlying risk factors.</p>	<p>7. All service sectors i.e. school, farmers' group have their own vulnerability reduction plan.</p> <p>8. Community initiatives to plan and implement long and short term risk reduction measures.</p> <p>9. Community initiatives to influence local and central government plan and programme.</p> <p>10. Local market is protected with improved access to finance and resilient infrastructure.</p> <p>11. Community owns and manages protection of infrastructures such as embankments, disaster shelters etc.</p>
<p>5. Strengthen disaster preparedness for effective response at all levels.</p>	<p>12. Community has several groups organised and equipped on disaster response (including evacuation, search and rescue) that also include members from vulnerable groups such as women, children, aged, persons with disabilities, minorities, etc.</p> <p>13. Each community has well prepared and ready to use disaster protection mechanism such as shelters, raised ground—to protect their life and HH assets.</p> <p>14. All service sectors e.g. health, education, agriculture, etc. have their own contingency and disaster management plan.</p> <p>15. Community has allocated resources to support affected people before external assistance arrive.</p> <p>16. Coordination mechanism exists at community level.</p>

4. Methodology

Key study questions

Context

- What priority does the Government give disaster risk reduction and preparedness – what policies and structures are in place?
- How effective are early warning systems and what progress has been made in developing multi-hazard EWS in Pakistan?

Extent to which 2011 response increased resilience

- How well do local initiatives (supported by DEC agencies) link into regional and national government plans and capacities
- To what extent were the twice affected communities better prepared for the second round of floods?
- What kinds of programmes contributed most to the resilience of the 2010 effected communities?
- How integrated is community training on DRR with Government institutions?
- What challenges and opportunities have agencies faced in supporting DRR interventions in their response programmes

Lessons for the future

- How well were the findings from the DEC post Tsunami study incorporated into this response?
- How can agencies assess the effectiveness and sustainability of their DRR and DP interventions?
- What lessons can be drawn from successful DRR programmes in Pakistan?
- Recommendations on how future emergency responses in the Pakistan context could be more grounded in DRR principles

Key documents of the 14 DEC member agencies and other stakeholders

The following DEC member agency documents were reviewed:

- DRR-related proposals to DEC and other donors
- Progress reports related to DRR projects
- DRR policy and strategy documents and case studies

The following government documents were reviewed:

- National disaster management Act 2010
- National disaster management framework
- Draft national disaster management policy
- Multiple district contingency plans
- Mainstreaming Disaster Risk Reduction into Development Process in Pakistan, NDMA
- National Plan: Strengthening National Capacities for Multi Hazard Early Warning and Response System, Government of Pakistan
- National progress report on the implementation of the Hyogo Framework for Action

Documents of other agencies found useful were as follows:

- One UNDRM project annual report 2010
- Disaster Preparedness for Natural Hazards in Pakistan, ICIMOD, Nepal
- Pakistan NGOs DRR forum, Feedback on Draft NDMA Policy

Participatory analysis with beneficiaries: The primary source of information were the affected communities where the DEC member agencies are working. Focus group discussions were held separately with males and females to generate collective analysis primarily focused on the second category of questions laid out under the “Key questions” table above. Various social and vulnerability categories of the beneficiaries such as gender, generation (elderly, adolescents and children), religious group, occupation, ability, mobility and wealth were equitably reflected in the exercise. A total of 7 communities were visited in Badin, Jamshoro, Mirpurkhas and Thatta districts in southern Sindh representing the work of 7 DEC member agencies (ActionAid, Concern, Islamic Relief, Merlin, Oxfam, Plan and Save the Children). Four of the villages had been affected by the 2011 floods; two by the 2010 floods and one by both floods. Five member agencies (Age UK, BRC, CAFOD, CARE and World Vision) could not be visited since they do not work in lower Sindh-- the focus of the field visits for this study, although all of them are involved extensively in DRR work. One day of field work out of a total of five days allocated for it was lost due to security issues, with the result that two DEC agencies (Christian Aid and Tearfund) scheduled on that day could not be visited

Transect walks and video and pictorial testimonies: The team members undertook transect walks to collect observations and pictorial and video evidence of good practices with a specific focus on points of vulnerability within the village, mitigation and other DRR project activities undertaken by the DEC member agencies and other points of interest

Individual interviews with agency staff in Islamabad and locally: Staff of all 14 member agencies and/or their partners at HQ, national and field offices levels was interviewed. The focus during these interviews was on all three categories of questions mentioned under the key questions above.

Inception Workshop: This was primarily held to include reflection of the staff of the member agencies at national level and focused on all three categories of questions mentioned above under the key questions.

External stakeholder interviews: Interviewed key government officials in NDMA and DDMA and UNDP One JRP project in Pakistan. The focus during these interviews was primarily on the first and third categories of questions mentioned under the key questions above.

Analysis and synthesis of information: The analysis in Chapter 2 essentially was derived from the government documents and interviews, view of NGOs and UN agencies and policy documents from DEC member agencies as well as other external agencies. The analysis for

Chapter 3 related to community perspectives, good practices, gaps and challenges is based on review, analysis and synthesis agency documents, staff and partner interviews and field visits. Finally Chapter 4 is based on a review of the earlier two chapters and also benefits from suggestions given by staff and external stakeholders.

5. Study TORs

Introduction - The 2010 floods Disaster

The heavy 2010 monsoon rains over Pakistan brought unprecedented floods to an area the size of England. 4 districts were most severely inundated include Khyber Pakhtunkhwa, Punjab, Baluchistan and Sindh.

The extent of the damage was unprecedented. Over 20 million people were affected over 78 districts of Pakistan with 1.9 million houses reported damaged or destroyed. Massive damage to networks such as roads and bridges as well as to water sources, schools and clinics has decimated the countries' infrastructure. Over 3.2 million hectares of standing crops, representing 16% of the total cultivatable area were damaged or lost across Balochistan, KPK, Punjab and Sindh with over 200,000 livestock lost across the country.

On 2ND August the Disasters Emergency Committee launched an appeal to the public for funds for the relief effort for those affected by the floods in Pakistan and for the on-going recovery. The appeal raised a total of £71 million for use over 2 years. At the time of preparation of these TOR five months remain on the response time with around £10m left in agencies budgets.

Rationale for the study

Pakistan was affected with further flooding in 2011 which although also monsoon related were of a different nature to the 2010 event. In 2011 Sindh was the most badly affected Province with some of the same areas flooded for a second year. The scale of destruction showed up the lack of preparedness and capacity of the country to effectively militate against such event. Writing on the International Day for Disaster Risk Reduction Dan Sparks said "The floods in Pakistan demonstrate the need for the government and donors to increase investments in activities to reduce risk, such as effective early warning systems, flood control, resilient housing and better planning."¹⁴

The fact that some DEC agencies were engaged in DRR programmes as part of their Phase 2 response provides an opportunity to assess the extent to which they were successful in the areas flooded for a second time and compare this with the level of preparedness in the newly affected areas in south east Sindh.

DEC agencies' response

All 13¹⁵ DEC member agencies participated in the response in 4 of the most severely affected provinces from Pakhtunkhwa in the north to Sindh in the south reaching around 1.8 million people in the first 6 months alone.

¹⁴ <http://www.globalhumanitarianassistance.org/tracking-international-investments-in-disaster-risk-reduction-in-pakistan-3247.html>

¹⁵ Plan International UK became the DEC's fourteenth member in June 2011 – after the Pakistan Floods Appeal.

Figure 1 below shows how the charities spent the funds over the first 6 months and then the following year. Spending specifically on DRR programme or building resilience is low and therefore subsumed within the 'other' category along with protection and capacity building. It is understood that expenditure in livelihoods, health etc can contribute to resilience and DRR.

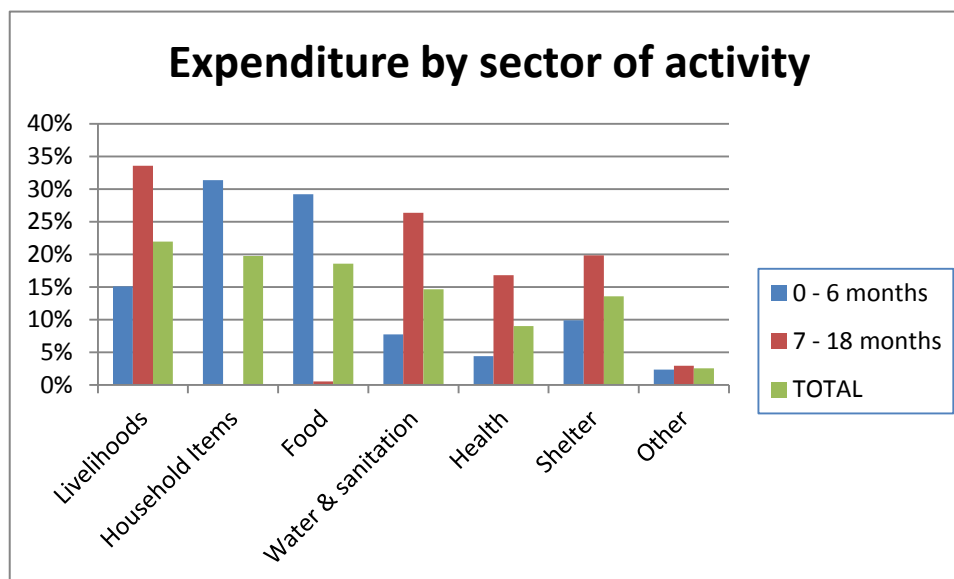


Figure 1: Expenditure by Sector of Activity over 2 periods in Pakistan.

Objectives of the study

To assess the extent to which the response and disaster risk reduction interventions in Sindh province has prepared communities for future disasters and built their resilience. To gather evidence of good practice from effective DRR and DP programmes and identify the factors that contribute or hinder achievement of intended outcomes.

Key questions

Context

- What priority does the Government give disaster risk reduction and preparedness – what policies and structures are in place?
- How well do local initiatives (supported by DEC agencies) link into regional and national government plans and capacities
- How effective are early warning systems and what progress has been made in developing multi-hazard EWS in Pakistan?

Extent to which 2011 response increased resilience

- To what extent were the twice affected communities better prepared for the second round of floods?
- What kinds of programmes contributed most to the resilience of the 2010 effected communities?
- How integrated is community training on DRR with Government institutions?
- What challenges and opportunities have agencies faced in supporting DRR interventions in their response programmes

Lessons for the future

- How well were the findings from the DEC post Tsunami study incorporated into this response?
- How can agencies assess the effectiveness and sustainability of their DRR and DP interventions?
- What lessons can be drawn from successful DRR programmes in Pakistan?
- Recommendations on how future emergency responses in the Pakistan context could be more grounded in DRR principles

Timing & Coverage

DEC programmes are due to be completed by end July 2012 therefore the study should be completed before this date. Field work should be undertaken before the monsoon floods start and should be confined to Sindh Province, Pakistan but desk study could have a wider scope.

Methodology

The study should consider not just those programmes identified as DRR or Disaster preparedness but also how shelter, wash and livelihoods, for example, have contributed to communities sense of disaster preparedness and risk reduction.

- a. Secondary literature review, including Government documentation, provincial plans, national/provincial budgets.
- b. Survey of DEC agencies interventions
- c. Key informant interviews and focus group discussions with flood affected communities, including women and children
- d. Consideration of gender issues and how women have been supported to build the resilience of their families and communities

Coordination

Field

One DEC Member Agency will be responsible for helping to Coordinate the field mission in Pakistan, offer appropriate logistical support and be able to answer the consultant's questions. DEC Members, where appropriate, will ensure that key partner agencies are informed of the visit and ensure the work funded by the DEC is open for scrutiny.

The lead agency will organise two meetings of the DEC Agencies in Pakistan, one at the start of the mission and one at the conclusion, to enable feedback on the findings. The first meeting will enable the Consultant/s to facilitate a review exercise and clarify the terms of reference. In addition to providing feedback, the final meeting could be used to discuss specific programme, policy, or advocacy issues that need attention and determine whether agencies are willing and able to take them forward.

Other Coordination:

The DEC Secretariat will

- Identify a lead agency to provide field coordination
- compile contact information in UK and Pakistan for each agency
- Make available Member Agency programme plans, reports and budgets as necessary

The consultant/s will arrange own visa, insurance and travel to the area.

Report

The Consultant/s will be responsible for delivery of a draft report and Executive summary written in English and submitted 8 days following return from the field. This will be shared with Member Agencies prior to finalisation of the text. A meeting of agencies representatives will be arranged at the DEC office in London with the consultant to discuss the findings.

The report must be confined to the specific objectives and questions of the mission and should not be more than 30 pages, including an executive summary but excluding appendices. Video and photographic reports would be welcome in addition to the written report.

The report should reflect the fact that the key purpose of the study is to elicit lessons and is not an evaluation of performance. Recommendations should be based on empirical evidence gathered during the course of the mission, prioritised and limited to 10 key points. The report should avoid generalisations or speculation as to the possible role of the DEC in current or future emergencies. If other issues do arise, discussion with the Secretariat will determine how they should be addressed.

The study findings are those of the author/s and will be made available to the Members as such. Any communication on the findings will make it clear that the report reflects the opinions of the authors alone and not the DEC Secretariat or its Members. The DEC publishes reports in line with its public information policy.

Consultant Profile

The team should comprise at least one local consultant. It will be important to ensure a gender mix within the team, in order that the needs and issues from both sexes are heard.

Consultants should be confident they are able to obtain the necessary visas to enter Pakistan without inordinate delays.

Selection will be made against the profile outlined and the elements set out below as evidenced in the submission.

Key skills and abilities for the team:

- Previous experience in the evaluation of humanitarian programmes, including methodologies for engaging with affected populations
- Previous experience of working in or undertaking consultancies in Pakistan
- A sound understanding of the context prevailing in Pakistan
- A sound understanding of the current issues and discussions relating to DRR, disaster preparedness and resilience
- A good understanding of the DEC
- Clear written English

To Apply

Interested parties should submit

- i. CVs for each member of the team (maximum of 3 pages each)
- ii. An indication of availability [*Optimal time for the mission May 2012*]
- iii. Proposal to include evidence of how the team meets the requirements above and setting out the conceptual framework on how the work is to be undertaken
- iv. Work plan and schedule

v. Budget

vi. Two references with contact details of referees

The DEC may wish to see substantive pieces of work

Please email your CV, proposal and supportive documents to adevonport@dec.org.uk by **09.00 GMT 8th May 2012**. Please note that incomplete submissions will not be considered.

Further information please contact Annie Devonport Email: adevonport@dec.org.uk
Disasters Emergency Committee (DEC) Tel: 0207 387 0200

6. Research team profile

The team was led by Dr. Niaz Murtaza (USA-based and originally from Pakistan) who has more than 15 years of experience in emergency response, DRR activities and implementation of international technical standards in more than 40 countries in Asia, Africa and Americas with reputed agencies such as IRC, Oxfam, CHF and ActionAid. In his recent job as International Program Manager, Emergencies for ActionAid, Niaz was the agency's international lead person for the implementation of all emergency response work, including the DEC-funded Pakistan Earthquake, tsunami, Myanmar, Bangladesh, and DRC appeals and other emergency programs. Niaz has a Ph.D. from the University of California at Berkeley in community-level sustainable development issues among disaster-prone communities and is currently working there with a research focus on accountability and impact assessment issues. (murtazaniaz@yahoo.com).

Niaz was supported by several other team members. **Ms. Sahar Gul Bhatti (Pakistan-based)** has 10-years of experience in working as a development practitioner with national and international organizations in Pakistan with Oxfam GB, National Commission for Human Development (NCHD), Aga Khan Development Network, World Wide Fund (WWF), National Commission on the Status of Women (NCSW) and Regional Academy for Research and Renaissance (RARRe). She was engaged in relief activities in the current floods of 2010 in Pakistan; she has monitored coverage of flood-affected areas with local organizations and media in Sindh. Ms. Bhatti also worked as a Project Officer in Oxfam GB in the disaster of 2003—her role was to monitor the overall project activities related to relief, rehabilitation and disaster mitigation processes. Her expertises include trainings, conducting evaluations, research (on socio-political issues), and report writing. Sahar is twice Masters, one in Philosophy from Pakistan and another in Anthropology of Development from the UK. (sahar.gul@gmail.com).

Khurshid Alam (Bangladesh-based) has more than 15 years of experience in 30 countries in Africa, Europe and Asia—is an independent consultant on disaster and climate change. He is an expert on flood response and was the author of the ALNAP's paper "Flood disasters: learning from previous relief and recovery operations". He played key role in drafting National DRR Framework of Government of Malawi and National Community Based Risk Redaction Strategy for Government of Cambodia. Khurshid delivers at least 25 humanitarian evaluations in 20

countries in Asia, Africa Carrabin region. He has recent experiences of managing Tsunami response in the region and of advising several agencies internationally (e.g. DFID, Danida, UNDP, ALNAP, CARE, British Red Cross, IFRC, ADPC) on humanitarian response, disaster risk reduction and climate change strategies. He also has experience of conducting an RTE in Pakistan after the 2005 earthquake and has recently conducted field-based evaluations of the flood response of the ACT Alliance and TDH. He also was the team leader of the ThinkAhead team that undertook the evaluation of the DEC Bangladesh Sidr cyclone response appeal in 2008. (alam@Khurshidalam.org)