

## **Special Section 1**

### **Flood 2010: Lessons Drawn from Global Post Disaster Initiatives**

*“Disasters are increasingly recognized as a threat to sustainable development, poverty reduction, and achievement of the Millennium Development Goals. Poor households are particularly vulnerable to negative shocks arising from disaster events for a number of reasons: the poor own fewer productive assets; are more likely to reside in hazardous locations and in substandard housing; and are primarily dependent on their own labor to meet their livelihood needs. Such risk profiles give them fewer options to cope with and recover from the loss of assets, or the death or disability of household members in the event of a disaster. In such situations, poor households may use sub-optimal or even harmful coping strategies such as reducing consumption expenditures on food, health, and education or trying to increase incomes by sending children to work. This can have long-term implications in the form of negative human development impacts and lower future income streams, and thus poverty traps.<sup>1</sup>”*

#### **Flood in Pakistan 2010; Extent of Damages:**

Pakistan suffered one of the biggest natural disasters of its history. The unprecedented flood of 2010 dislodged more than 20 million people residing over an area of 132,000 kilo meters.

According to estimates of the Asian Development Bank (ADB) and the World Bank, damage to infrastructure, farms, homes, as well as other direct and indirect losses amounted to around US\$ 9.7 billion. Of the various sectors affected, agriculture and livestock were worst hit, followed by complete or partial damage to a large number of houses. Other infrastructural facilities also received huge damages.

With a major portion of the population associated with agriculture sector and almost 40 percent of population living around the poverty line in Pakistan<sup>2</sup>, the flood is likely to have severe socioeconomic consequences for some time to come. According to ILO more than 5.3 million jobs were lost and/or were affected due to flood<sup>3</sup>. As many hospitals, schools, and roads were either destroyed or damaged in

---

<sup>1</sup> Source: “Building Resilient Communities: Risk Management and Response to Natural Disasters through Social Funds and Community-Driven Development Operations”, World Bank (2010).

<sup>2</sup> For details see Social Sector Developments, State Bank of Pakistan Annual Report for 2009-2010 on the State of Pakistan’s Economy.

<sup>3</sup> Source: [http://www.ilo.org/islamabad/info/public/pr/lang--en/WCMS\\_144470/index.htm](http://www.ilo.org/islamabad/info/public/pr/lang--en/WCMS_144470/index.htm)

Table SS1.1: Country wise Foreign Assistance for Flood Affectees							
Country / Agency	Total Commitment (US \$ Million)	Grant (US \$ Million)		In-Kind (US \$ Million)		Implementing Agency	
		Committed Pipeline	Disbursed	Committed pipeline	Received	UN/INGOs	GoP
US / USAID	381.5	313.5	TBD	Twelve flights plane load of goods including Boats, Shelter and settlements, water sanitation and hygiene, plastic sheetings, blankets	68.0	381.5	
Saudi Public Fund Relief	242.0			242.0			242.0
EU	187.5	100.0	87.5			187.5	
Turkey private / public fundraising	130.9			130.9			130.9
UK / DFID	117.7	69.7	48.0	Tents, blankets, water containers, shelter kits, water purification tablets	All received	117.7	
Iran	101.2			100.0	1.2	1.2	100.0
Saudi Arabia	100.0			55.0	45.0	95.0	5.0
Australia	67.5	67.5	TBD	Three Plane load of relief goods	Sent two plane	67.5	
China	50.7		0.2	29.5	21.0		50.7
Turkey	45.0		10.0		35.0	35.0	10.0
Germany	43.8	6.3	37.5	Tents, nets, blankets, kitchen sets, water purification tablets, etc	As indicated in kind monetized column	43.8	
Netherlands	43.3	34.9	8.4			43.3	
Canada	33.0	33.0				33.0	
Denmark	33.0	21.0	12.0			33.0	
UN	29.0		29.0			29.0	
Others*	264.2	93.6	54.9	73.7	31.8	169.1	95.8
<b>Total</b>	<b>1870.3</b>	<b>739.4</b>	<b>287.5</b>	<b>631.1</b>	<b>202.0</b>	<b>1236.5</b>	<b>634.4</b>
*Does not include US\$10.0 million committed by IDB as soft loans							
Source: <a href="http://www.ead.gov.pk/">http://www.ead.gov.pk/</a>							

the flood areas, these facilities are no longer as effective as these were before the flood. Under these conditions it will be challenging to maintain progress in socio economic indicators of the country. Moreover, efforts to reduce poverty and achieve Millennium Development Goals by 2015 are also likely to suffer.

This special section reviews the relief response from various sources and discusses experiences and lessons drawn from similar post disaster rehabilitation activities.

### **What Has Done So Far**

Following huge damages caused by flood, the world community stepped up rehabilitation efforts for providing basic necessities of life including water, food, basic health facilities and shelter to flood affected people (Table **SS1.1**). Despite a support from world community, the required assistance could not be provided as many people still face desperate conditions. International aid agency Oxfam has warned that flood rehabilitation funds are drying up, putting millions at risk.

The winter has arrived and failing to provide weather related needs to the people living in temporary shelters, tents, and makeshift shelters is a source of concern. In these conditions, the rehabilitation of flood affected people and reconstruction of destroyed or damaged social and physical infrastructure is an uphill task requiring efforts from all stake holders.

The Government of Pakistan has started Watan Card Scheme according to which flood affected families will initially receive Rs 20,000 with a further pledge to receive Rs 80,000 in order to help in reconstruction activities.

State Bank of Pakistan has also taken relief measures for the people in flood affected areas. Details of these measures are presented in **Box SS1**.

**Box SS1: Initiatives by State Bank of Pakistan for Flood Affected Areas:** In order to facilitate the borrowers of flood affected areas State Bank of Pakistan has initiated various schemes. Salient features of these schemes are discussed below:

- **Concessional Financing & Guarantee Scheme for Canola Cultivation in Flood Affected Areas:** In order to encourage farmers to sow canola in the flood affected areas in Rabi season, a concessional financing scheme has been introduced under which financing will be provided at affordable/concessional mark up rates through banks with an allocated amount of Rupees 500 million for the scheme. The loans extended under the scheme are also covered under credit guarantee scheme, where SBP would shares bonafide losses of banks to the extent of 30 percent. Credit under the scheme is granted to the farmers of the affected districts/regions as identified by MINFA (Ministry of food and Agriculture). Tenor of the crop production loans and its repayment is based on the cropping cycle up-to a maximum period of 6 months. Refinance under the scheme is provided to banks at 5.0 percent per annum. Banks are permitted to charge a maximum spread of 3.0 percent per annum from the borrowers, therefore

credit to farmers is available at 8 percent per annum. Principal amount of loans under the scheme is to be repaid on agreed date between bank and the borrower, however, not later than 60 days from the date of harvest of the crop. Whereas mark-up is to be paid on maturity of loan.

- **Refinance Scheme for Revival of SMEs & Agricultural Activities in Flood Affected Areas:** Under this scheme concessional financing through banks for agri. production/working capital finance to farmers and Small & Medium Enterprises (SMEs) in districts affected by recent flood as notified by National Disaster Management Authority is provided at affordable/concessional mark-up rates through banks/DFIs for which Rs. 10 billion is allocated. Under agricultural production loans, tenor of the crop production loans and repayment of principal amount is based on cropping cycle up-to a maximum period of one year, whereas borrowing limit of farmer is fixed by the bank keeping in view credit requirements, cash flows, repayment capacity, risk profile of the borrower, etc. For SMEs, banks provide short-term loans to SME borrowers, as defined in Prudential Regulations for SMEs in flood affected districts. Refinance under the Scheme is provided to banks at 5.0 percent per annum. Bank is permitted to charge a maximum spread of 3.0 percent per annum from the borrowers, therefore credit to SMEs/farmers will be available at 8.0 percent per annum. Principal amount of loans under the scheme is to be repaid on agreed date between bank and the borrower within a maximum period of one year. Mark-up is to be paid on quarterly basis in case of financing to SMEs. However, mark up on agri. loans is to be paid on half yearly basis.
- **Microfinance Relief Measures for Borrowers of flood Affected Areas:** Under this scheme, microfinance banks (MFBs) are encouraged to reschedule/restructure loans to borrowers of flood affected areas identified by the National Disaster Management Authority (NDMA), as per existing Prudential Regulations (PRs) for MFBs, where the possibility of recovery exists. For all such rescheduled/restructured loans and advances, MFBs may defer loan provisioning up to December 31, 2011. This relaxation is available for loans and advances which have become non-performing since July 1, 2010.
- **Relief Measures for Agriculture and SME Loans/advances of Flood Affected Areas:** Under this scheme, banks/DFIs are encouraged to reschedule/restructure Agriculture and SME loans/ advances to borrowers of flood affected areas identified by the National Disaster Management Authority (NDMA) as per existing Prudential Regulations (PRs) of Agriculture and SME Financing, where the possibility of recovery exists. For all such rescheduled/restructured loans and advances, Banks/DFIs may defer loan provisioning up to December 31, 2011. This relaxation is available for loans and advances which have become non-performing since July 1, 2010.

### **Lessons from Global Disasters**

The first decade of the new millennium witnessed a number of natural disasters around the globe including Tsunami (Indian Ocean 2004), Katrina Cyclone (USA 2005) and Nargis Cyclone (Myanmar 2008). The extent of damages caused by these disasters varies (see **Table SS1.2**). However, relief and rehabilitation efforts in response to these natural disasters offer some common lessons that can be used as a guide while scaling up rehabilitation efforts following the recent flood in

Pakistan. Some of the measures taken by the world community to deal with the aftermath of these calamities are discussed below.

- 1. Coordination of Rehabilitation Activities:** An effective rehabilitation strategy can only be successful if there is coordination amongst all participants of relief work. It is therefore necessary to establish a mandate in order to avoid conflicts. Lessons from post Tsunami recovery in Aceh (Indonesia) show that it is necessary to build a relationship of trust with the government for successful coordination of activities. It is also highly imperative to ensure local community participation, in particular the affectees, in order to ensure greater ownership of the recovery process.

Given that the government has the required infrastructure and access to all

	Flood (Pakistan- Aug 2010)	Earthquake (Pakistan- Oct 2005)	Katrina Cyclone (USA- Aug 2005)	Nargis Cyclone (Myanmar- May 2008)	Tsunami (Indian Ocean- Dec 2004)
Population effected	20,251,550	3,500,000	500,000	2,420,000	2,273,723
Area effected (sq. km)	132,000	30,000	N.A	23,500	N.A
Deaths	1,767	73,338	1,836	84,537	238,000
Injured	2,865	128,309	N.A	19,359	125,000
Household damage	1,884,708	600,152	200,000	450,000	N.A
<b>Source: NDMA website</b>					

affected areas, lead role in the rehabilitation phase has to be carried forward by the government with other agencies partnering with it for implementing a coordinated relief plan. It is therefore necessary for all agencies/NGOs providing relief to flood affectees to work in association with the government of Pakistan for successful rehabilitation program.

- 2. Provision of Information:** Coordination of rehabilitation activities cannot be implemented unless necessary information regarding recovery process is available to all people concerned including affected population. Post-Tsunami recovery process shows that UNDP and ADB worked together for customizing the existing Development Assistance Database (DAD), in order to track the given aid. Successful Tsunami rehabilitation program in Tamil Nadu (India) was aided by providing reliable village-level data and allied information through a network of state and district level knowledge centers. This helped in accountability as well as coordinating recovery process.

The National Disaster Management Authority (NDMA) has already provided flood related information including the extent of damages, response, relief requirements, recovery and rehabilitation progress and pledges and commitments by donors and sponsors on its website. However, it is necessary that all concerned stake holders should properly use available information and provide further information to the concerned authority regarding their relief efforts and the requirements of the affected population so that a coordinated relief program can be implemented.

- 3. Targeting Strategy:** In a relief program it is often difficult to identify and reach out to the most vulnerable people for quick targeted support and certain biases can occur in targeting. Previous relief efforts have shown that gender, ethnicity, age, class, religion or occupation can result in little or no access to assistance following disaster. In particular gender related discrimination is common in recovery processes.

It is therefore necessary that a targeting strategy should try to minimize such biases. Experience from Indonesia post tsunami recovery show that gender related biases can be minimized by providing gender specific data for monitoring and evaluation purposes. The ongoing flood relief activity should also be planned and implemented in such a manner that the most vulnerable segments of the society are not ignored.

- 4. Specific Government Interventions:** Following any natural disaster governments use various interventions for recovery of the affected people. These include free food distribution, food for work, cash for work etc. Experiences from various natural disasters have shown that such interventions have remained successful. Following the flood in Kenya in 1996, government introduced cash schemes that allowed the affectees to invest in small-scale income generating activities.

Banks and other financial institutions can play an important role for providing local communities with necessary access to capital through micro finance schemes and financing for small and medium enterprises. It is, however, necessary that any such program should be based on proper market assessments with appropriate design and awareness of the facility should be properly disseminated.

Rehabilitation efforts have been successful in Aceh (Indonesia) and Gujarat (India) following Tsunami. Experience of World Bank Kecamatan

Development Program (KDP) in Indonesia shows that community-based assistance grants can also work well for recovery (for details of selected post disaster livelihood recovery success stories see **Box SS2**). Though State Bank of Pakistan has already taken steps for providing relief to the population of flood affected areas, this is necessary for financial institutions to come up with innovative schemes that help in livelihood recovery of flood affected population of the country.

- 5. Final Costs of Construction Exceed Initial Estimates:** Experience from natural disaster rehabilitation work points to the fact that there is high probability that final costs of construction programs would exceed initial estimates by substantial amounts because of rising local construction costs, following a sudden increase in demand in local markets for materials and labor inputs.

World Bank data provided by USAID shows that following Tsunami the average wage for bricklayers, plumbers, and construction supervisors in Aceh (Indonesia) increased 55 percent, 72 percent, and 81 percent, respectively<sup>4</sup>. It is, therefore, necessary to expect such cost increases and hence rehabilitation work should be appropriately budgeted while estimating funding requirements.

- 6. Provision of Basic Health Facilities:** Natural disasters are often accompanied by various health risks including spread of epidemic diseases amongst disaster survivors. Provision of basic health facilities while limiting control of such epidemics is highly imperative under these conditions. A major step towards limiting outbreak of such diseases can be through quick provision of shelter to the affectees. However, it is necessary that the provided shelters should also have allied infrastructure facilities for water, sanitation and cooking etc. Given that winter is setting in, provision of shelter is highly imperative as women, elderly people and children are vulnerable to weather related diseases.
- 7. Ensuring Accountability and Transparency During Rehabilitation Stage:** For successful rehabilitation of affectees it is necessary that monitoring and evaluation of various programs should be an integral part of the process. Such monitoring should ideally be ongoing so that not only

---

<sup>4</sup> Source: "Reconstruction after a Major Disaster: Lessons from the Post-Tsunami Experience in Indonesia, Sri Lanka, and Thailand", ADB Institute Working Paper No. 125 (2008).

the program progresses but any necessary adaption in the program in relation to changing requirements of the concerned population can be done.

Given that recovery involves huge sum of money; chances of corruption become high. Experiences from post Tsunami rehabilitation indicates that corruption levels can be kept to a minimum. This was mainly because corruption was considered as a core threat to reconstruction and hence governments established several levels of transparency and accountability mechanisms<sup>5</sup>. In Aceh (Indonesia) a comprehensive information management system, the Recovery Aceh-Nias Database (RAND) was developed and all agencies involved in tsunami recovery were required to register and send regular updates on funds committed and disbursed.

An allied factor with accountability is a strong complaint mechanism where grievances of affected people can be heard. Proper function of such mechanisms during the ongoing recovery and rehabilitation process can go a long way in reducing the levels of corruptions and injustices to vulnerable groups.

- 8. Future Preparedness:** In order to minimize the extent of damages caused by natural disasters increased use of technology is generally recognized necessary for developing suitable early warning systems, disaster preparedness mechanisms and management of rehabilitation activities after disasters. International experience shows that following the devastating earthquake in Indian state of Gujarat (2001), appropriate use of telemedicine allowed specialists to provide consultations to the affected population from far-off places when all other means of communication were disrupted.

It is, therefore, necessary that the Government of Pakistan should look into ways and means for improving the existing technological facilities so that the country should be better prepared for encountering any future disasters. Investment in technological progress can go a long way in limiting the extent of damages in case of future disasters.

- 9. Use Disaster as an Opportunity to Reform:** The most important lesson drawn from the rehabilitation from natural disasters is that countries used

---

<sup>5</sup> Source: [www.ifrc.org/Docs/pubs/Updates/the-tsunami-legacy.pdf](http://www.ifrc.org/Docs/pubs/Updates/the-tsunami-legacy.pdf)



these disasters as an opportunity to reform and improve themselves as seen in all the five countries affected by Tsunami. These countries have learnt to create disaster preparedness institutions equipped with early warning systems. They have also learnt to encourage community participation in disaster awareness and preparedness programs. It is therefore necessary for the government of Pakistan to turn around this crisis into an opportunity to reform and rebuild better systems.

## **Conclusion**

Pakistan is currently facing unprecedented damage caused by devastating flood that has hampered lives of millions of people. Given the high magnitude of destruction, full recovery will not be easy and strong support and cooperation between external and domestic stakeholders are required. International community has extended an arm of support, however still more needs to be done for rehabilitation of the affectees. Given that Pakistan is entering the rehabilitation stage, it is important to capitalize on experiences from similar natural disasters. Lessons learnt from earlier post disaster activities can help the government in better planning and implementation of recovery initiatives.

### **Box SS2: Post Disaster Livelihood Recovery, Selected Success Stories:**

- **UNDP Cash for Work Programme (Haiti, 2010):** In response to the devastating earthquake in Haiti, UNDP started cash for work programme, under which short-term jobs like clearing rubble and rehabilitating infrastructure were created. Under the scheme more than 100,000 workers, with more than 40 percent women, were provided a livelihood which covers for their basic necessities. An allied programme for supporting micro and small enterprises is also under progress which aims to provide small grants for asset replacement apart from providing management and skills training to nearly 20,000 small businesses. Moreover in order to build local capacities through trainings, a series of projects under Area-Based Recovery is also aimed. The overall budget for the livelihoods, cash-for-work and Area-Based Recovery components of UNDP's programme for the 2010–2012 period is \$149.2 million.
- **Indonesia Kecamatan Development Program (World Bank):** This programme was run in association with the Government of Indonesia aimed at alleviating poverty, strengthening local government and community institutions, and improving local governance. Loans from World Bank, government budgetary allocations and donor grants supported the programme. According to the scheme villagers engage in a participatory planning and decision-making process to allocate resources for their self-defined development needs and priorities. The outcome of the programme has been successful as apart from improving local governance, KDP has funded some 116,300 infrastructure, economic and social activities across the country.
- **ADB assisted Earthquake and Tsunami Emergency Support Project (Aceh Micro and Small Enterprises):** In order to develop sustainable financial services for micro and small enterprises in Aceh rural banking network was redesigned. Accordingly 12 small rural banks were merged thereby increasing the overall equity base. Moreover ADB also assisted in hiring

and training of old and new staff in accordance with formulated standard operating policies and procedures. The consolidated rural bank has been able to serve the more remote and “under-banked” areas of Aceh.

- **ADB assisted Earthquake and Tsunami Emergency Support Project (Aceh and Nias Microfinance projects):** Under the project technical assistance was provided to microfinance banks operating in the region. The technical training encouraged banks to lend on group basis following the Grameen model. The results of the scheme were very productive as the banks engaged in expansive micro financing catering the financial needs of a larger network of clientele with a very high repayment rate.