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## Special Section

# Pakistan: Flood Impact Assessment

The 2010 monsoon flood disaster in Pakistan was massive and unprecedented, killing more than 1,700 persons, affecting over 20 percent of the land area, more than 20 million people, and causing loss of billions of dollars through damages to infrastructure, housing, agriculture and livestock, and other family assets. Essential infrastructure including roads, bridges and markets has been severely damaged and many remain impassable. According to one of the United Nation Survey assessed that some 10.1 million people were in need of shelter and humanitarian assistance. The number of people requiring food assistance to support recovery and rehabilitation is estimated at approximately 3.6 million. More than 1.1 million houses were completely destroyed or made un-live-able and more than 2 million hectares of standing crops were damaged or lost. The flood had a severe impact on people’s homes, livelihoods and assets. Most people do not know when they would be able to resume their livelihoods.

The floods of 2010 have caused a significant loss to poverty reduction efforts and would result in increase in poverty and vulnerability of affected population. The areas affected by floods were consistently lagging behind in terms of socio-economic and educational indicators as compared to the areas unaffected by the floods. The loss to infrastructure and livelihood sources will push them behind further. The people most severely affected were predominantly small farmers and unskilled labourers. They are among the most vulnerable in Pakistan and almost all live below or just around the national poverty line.

The natural disaster forced the government to divert resources for the rehabilitation of internally displaced Pakistanis (IDPs) and reconstruction of critical infrastructure. The reconstruction cost

estimates by province are given below in Table-1, which reveals that Sindh has suffered the highest losses followed by Punjab, Khyber Pakhtunkhwa, Balochistan. The extent of damages in AJK and Gilgit Baltistan is relatively smaller.

**Table 1: Flood Damages and Reconstruction Cost (Rs. in Billion)**

Province/ Area	Damages	Reconstruction Cost
AJK	7	13
Balochistan	53	27
FATA	6	8
Federal	93	96
Gilgit Bultistan	4	7
Khyber Pakhtunkhwa	100	106
Punjab	219	93
Sindh	373	228
<b>Total</b>	<b>855</b>	<b>578</b>

*Source: National Flood Reconstruction Plan 2010*

The sector wise breakdown of flood damages and respective reconstruction cost estimates are given in Table-2. It reveals that the agriculture sector has received a major blow followed by housing, transport and communication infrastructure. The minimum reconstruction costs amount to a total of Rs. 578 Billion.

### Housing

Around 392,786 houses damaged and 728,192 destroyed. The damage was most pronounced in the districts of Muzaffargarh and Rajanpur in the Punjab, Nowshera and D.I.Khan in KPK, and Jaffarabad, Jacobabad, Shikarpur and Thatta in Sindh.

**Basic Public Services**

Flooding causes extensive damage to schools and health centres. According to UNICEF 7,600 would need to be reconstructed and 436 health

facilities were damaged or destroyed, greatly limiting the provision of health care services to affected communities.

**Table 2: Flood Damages and Reconstruction Cost By Sectors (Rs. in Billion)**

Sectors	Damages	Reconstruction Cost
Transports and Communication	113	200
Irrigation	24	37
Energy	26	9
Agriculture	429	22
Education	27	43
Health	4	4
Water and Sanitation	9	6
Environment	1	18
Governance	6	5
Disaster Risk Management	-	2
Housing	135	126
Private Sector	24	9
Livelihoods support	-	58
Financial sector	57	39
Total	855	578

Source: National Flood Reconstruction Plan 2010

**Infrastructure**

Damage to road infrastructure was extensive. The damage was greatest in the mountainous area where many bridges collapsed rendering some areas completely inaccessible. Over the river Swat for example all connecting bridges over a distance of 140 km (between Chakdara and Kalam) were destroyed. The flood caused significant damage to phone lines, electricity supply interrupted in many large towns in Swat, Lower and Upper Dir as well as Shangla.

**Impact on Agriculture, Crops and Livestock**

According to the FAO agricultural assessment report the floods caused damages of unprecedented scale to agriculture crops, livestock, fisheries and forestry and destroyed primary infrastructure such as tube wells, water channels household storages, houses, animals sheds, personal seed stocks, fertilizers and agricultural machinery. The floods struck just

before the harvesting of key crops, including cotton, rice, maize, vegetables and sugarcane and on the onset of the Rabi (winter) wheat planting season which normally starts in September/October. Overall production loss of sugar cane, paddy and cotton was estimated at 13.3 million MT. It is estimated that over 2 million hectares of standing crops were either lost or damaged, over 1.2 million head of livestock (excluding poultry) died due to the flood. Between 60 and 88 percent of the farming households reported losses of more than 50 percent of their major crops: rice, vegetables, cotton, sugar and fodder. These households were mostly located in Punjab and Sindh.

**Household assets**

Property was badly affected with 42 percent of houses completely destroyed. 19 percent heavily damaged and 28 percent lightly damaged. Only 9 percent of houses remained escape from damages.