

# Early Recovery Needs Assessment



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## Acknowledgment

The Early Recovery Needs Assessment Floods 2010 was conducted in the holy month of Ramadan. The assessment was not possible without the help of Community Restoration cluster members including our UN sister agencies, NGOs, Early Recovery Coordination Cell and various projects/units of UNDP. Here we would like to thanks World Food Program (WFP), International Labor Organization (ILO), UN-Habitat and Human Resource Development Network (HRDN) for their continued support. Our appreciation for various projects; Peace and Development (P&D), One UN-DRM, Refugee Affecting and Hosting Areas (RAHA), Devolution Trust Community Empowerment (DTCE) and Rehabilitation of Salt Affected & Water Logged Lands (BioSaline-II).

## Executive Summary

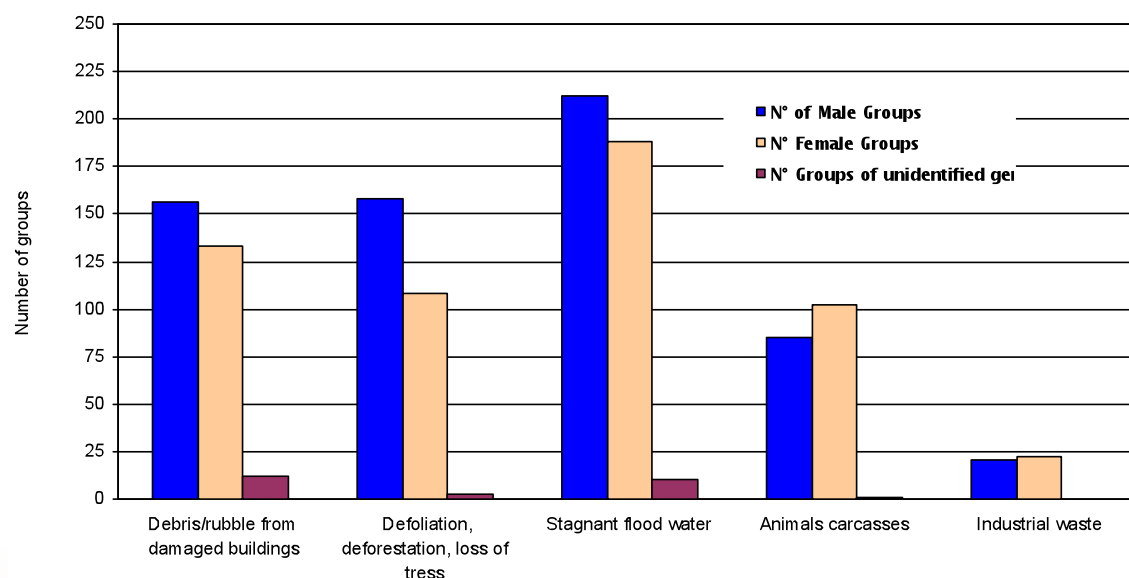
The vast differences in nature and spread in timing and geography of the floods has made it both difficult and essential to assess impacts and needs across the affected areas. These needs are both related to immediate life-saving interventions and support for restoring livelihoods and communities. While the assessments are necessary for guiding resource mobilization and appropriate interventions, conducting accurate assessments has been hampered by the enormous scope of the impacts, destruction of transportation infrastructure in some areas, and by new floods arriving in other areas. Some assessment teams in Sindh province, for example, recently required evacuations themselves. Amidst all of these complications, it's not surprising that it continues to be difficult to get a complete picture of the extent and nature of the damages and needs for humanitarian assistance and recovery.

This survey, conducted between 4-12 August by the UNDP-led Community Restoration Cluster, collected data from all six flood affected provinces and sent teams to 15 districts in four affected provinces KPK, Sindh, Baluchistan, and Punjab and also covered AJK and Gilgit Baltistan.

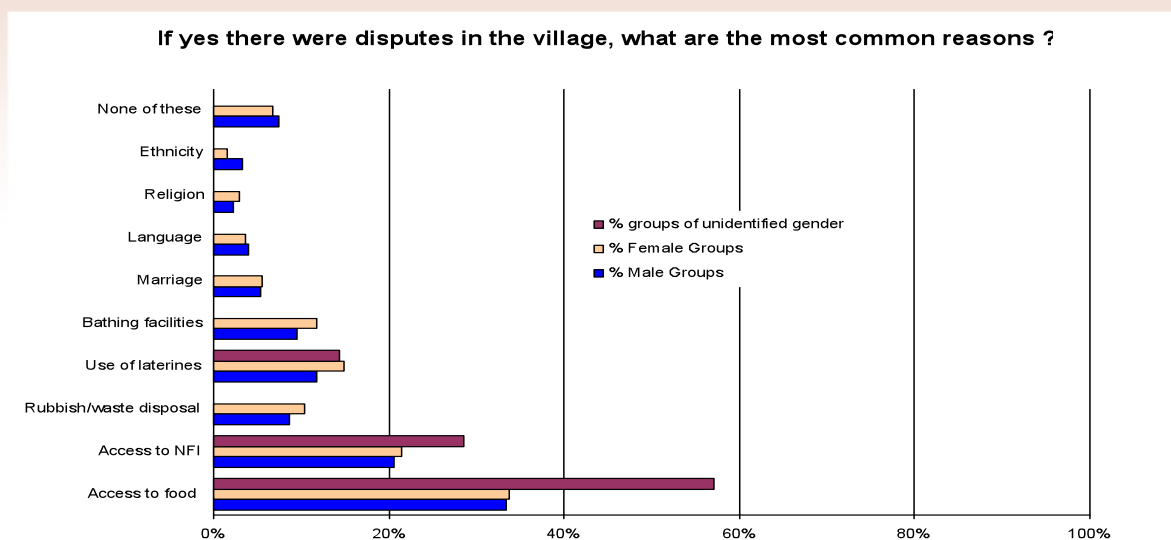
The survey also made observations on the cross-cutting issues of disaster risk reduction (some preparedness actions reported, but weak local institutions, poor early-warning and community preparedness in most areas) and gender (lack of special facilities and arrangements for women).

The early recovery assessment findings have been reconfirmed through the data collected through the Multi Cluster Rapid Assessment Mechanism (MCRAM) process. e.g. the environmental problems that exist include stagnant water, animal carcasses and rubble from damaged buildings.

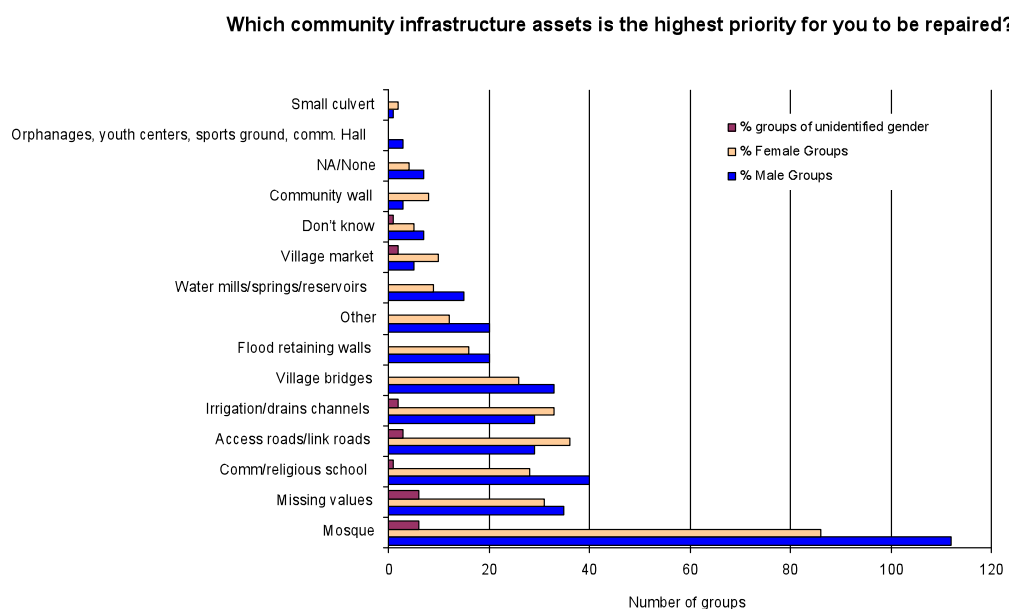
**Do any of these environmental problems exist in your area ?**



The early recovery assessment also reiterates in nearly all the provinces the issues of social cohesion as a result of the floods situation which include the disputes over relief goods as one of the main reasons for the disputes which may have also had other effects on peoples marriages and ethnicity issues may have also arisen due to the frustrations of living in camps or in temporary locations.



On the subject of community infrastructure, the MCRAM findings have captured the priority of the communities on what community infrastructure they would like immediately restored. This has been illustrated in the diagram given below with religious places as the top most priority followed by link roads, bridges, flood retaining walls etc.



The overall assessment report gives a gist of similar issues that have been reported in all the areas covered however with variation of the severity of the issues amongst districts.

Initial findings highlighted serious impacts to livelihoods (including shops, industries, agriculture, livestock), the environment (mud, debris, carcasses, lack of sanitation and waste disposal facilities, standing water), community basic infrastructure (damaged water supply, water pumps, protection works, culverts, drainage and irrigation channels, link roads and bridges), governance (ID cards and deeds lost, government facilities damaged, security and theft problems, transparency issues), and social cohesion (tension building in some areas related to relief distributions).

# Early Recovery Needs Assessment – Pakistan

## Background

As we marked the second World Humanitarian Day, this August 19 2010, we also happen to be in the middle of responding to the most devastating floods in the history of Pakistan, an area the size of England has been affected.

The recent floods in Pakistan are being termed as a slow motion catastrophe – and far from over. The sheer scale of disaster defies comprehension because a flood, unlike a tsunami and an earthquake that swipe away lives in an instant, builds slowly over time. Around the country, an estimated 17 to 20 million people have been affected. That's more than the entire population hit by the Indian Ocean tsunami and Kashmir earthquake in 2005, the 2007 Cyclone Nargis and this year's earthquake in Haiti — combined.

The widespread devastation caused by high floods in Pakistan in a matter of less than a month presents horrid pictures of people, livestock and property being swept away by the surging waves fed by heavy downpour. Entire villages have been wiped out and infrastructure severely damaged in different parts of the country. It is literally a battle against time to save lives as well as plan for rehabilitation of the affected population. No doubt the Floods are being referred to as an 'exceptional' disaster, thereby warranting an exceptional response.

The death toll has now reached 1,677<sup>1</sup> with 2,605 people confirmed as injured in all over the country. Over 1.2 million houses have either been damaged or destroyed<sup>2</sup>. In a disaster of such a magnitude, humanitarian actors need to come together and build on the partnerships that have evolved over the years to respond effectively and support the government and affected communities.

The United Nations system is continuing to save lives and lay the foundations for Pakistan's recovery as the floodwaters start to recede, exposing the large scale of devastation and humanitarian need across the country. This report focuses on the early recovery interventions.

## Rapid Needs Assessment

Soon after the floods hit the country, in order to get firsthand knowledge of the needs of the communities revolving around the themes of governance, community infrastructure, non-farm livelihoods, social cohesion and environment with Disaster Risk Reduction (DRR) as cross cutting, a Rapid Needs Assessment was undertaken by UNDP and its partners under the community restoration cluster in selected districts of Khyber Pakhtunkhwa (KPK), Baluchistan, Sindh, Punjab, AJK and Gilgit Baltistan.

## Early Recovery Needs Assessment Mission

Under the agreed government response framework, UNDP was designated as the lead agency to prepare the Early Recovery Response Plan for the flood affected areas of the country<sup>2</sup>. The early

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<sup>1</sup>National Disaster Management Authority 31 August 2010

<sup>2</sup>10 August 2010



recovery assessment missions were planned to commence for all provinces starting 25 August till 31 August 2010. The Government of Pakistan requested UNDP to undertake early recovery needs assessment and design of the early recovery response plan with participation, consultation and ownership of the federal, provincial and district governments. The objective of the mission was to quickly assess the needs of the flood-affected population to identify strategic and coherent response to enable a timely and sustainable recovery. The mission is also expected to provide evidence base for setting early recovery project based priority interventions, to facilitate the transition from relief to long term rehabilitation.

## **Methodology**

The Methodology adopted included Rapid Needs Assessment followed by UN inter cluster early recovery needs assessment which included UN agencies, NGOs who are members of the Community Restoration and Flood clusters. The ER needs assessment mission focused on seeking primary and secondary data through direct consultation with district government and NGOs. Consultations were held with community members to directly seek their feedback on possible interventions to address their most critical needs. Finally the mission tried to meet with the Additional Chief Secretary of the province and debriefed him/her on proposed interventions. The mission also commenced after a briefing with the provincial authorities who also confirmed and suggested the districts to be selected for the assessment.

PUNJAB





## Background

The recent floods in the southern districts of the Punjab have played havoc with lives and livelihoods of millions. Heavy rains in the last week of July 2010, super flooding in the vast network of rivers along with the hill torrents have severely affected 12 districts in the region. According to the preliminary estimates by the government of Punjab<sup>3</sup>, the floods have affected a population of over 8 million people. Infrastructure and agriculture losses run into billion of dollars and million have been made homeless. Out of 12 affected districts, 7 districts i.e. Ranjanpur, Muzzafargarh, DG Khan, Layyah, Bhakar and Rehim Yar Khan, Mainwali are categorized as the severely affected.

## Food

According to the stakeholders consulted during the assessment process, more than 90 %<sup>4</sup> of the population is involved in agriculture and livestock for their livelihood. It is very important to mention here that nearly 40% of the agriculture work force in the affected areas works as tenants on the land of other people.

<sup>3</sup> <http://www.floodrelief.punjab.gov.pk/Damages.aspx>

<sup>4</sup> PDMA, Punjab

The region is also known as 'milk bucket' for the country and provides milk to all the major dairy companies in the country e.g. Nestle, Haleeb and Engro foods etc.

Summary of Losses in Punjab	
District affected	12
Villages affected	3132
Population affected	8.20 million
Cropped area	3.50 million acres
Houses damaged	More than 500,000
Casualties	103
Source: PDMA Punjab August 2010	

## Impact

The floods have affected nearly 3.50 million acres of the cropped lands. This includes the crops of cotton, sugar-cane, fodder, mung, rice and vegetables. Along with the standing crops, the stored wheat has also been destroyed (an assessment is going on for the exact estimates by the government). The livestock loss assessments are also in the process, the common understanding is that losses are minimal. Please note that the Nestle<sup>3</sup> has shared with the district governments that the supply of milk has only decreased by 10%. This decrease can be attributed to the displacement, accessibility and also to the losses.

According to a rough estimate, from every fifth house of the affected area, men have gone to the other cities for work. The remittances sent by the migrant workforce constituted a good part of the family income and was also spent on the food. Since the floods, men have returned to take care of their families; hence there is a decrease in the family income which also has effects on the food security.

According to the assessment conducted by the WFP, the highest number of extremely vulnerable population is in Rajanpur, followed by Muzaffargarh and Rahim Yar Khan. The impact of flood still continues and may increase the number of affected population. This vulnerability can also be interpreted in terms of food in-security.

The floods in Punjab have directly affected 8.2 million people according to Government of Punjab statistics. According to a vulnerability assessment conducted by the WFP, around 2,666,000 people are displaced in the area. In terms of food needs in the response phase, the displaced population can be divided into three groups i.e. in camps, under open spaces and with the host families. Around 300,000 of the population are in camps managed by the district government and civil society. For the other two categories even rough estimates can't be made. The district government along with the CSO and other citizen groups are catering to the food needs of the affected in the camps.

For the families stranded in the flood zones and camping on the road side, partial food relief efforts are being made by the district government and other non-governmental stakeholders. For the people living with the host families no arrangements have been made.

<sup>3</sup> DCO Layyah, Punjab District

Vulnerable Population in Punjab			
District	Extremely Vulnerable	Moderate Vulnerable	Vulnerable
Rajapur	1,050,051	176,763	142,605
Layyah	221,606	21,582	125,229
DG Khan	260,631	108,428	97,659
Muzaffargarh	756,101	146,073	47,607

Source World Food Programme VAM

## Coping Mechanisms

The floods have severely affected the agrarian belt of the Southern Punjab. Food consumption is heavily dependent on the items distributed by District Government, WFP and other food aid agencies. The majority of affected families, especially the ones in the camps, have reduced their food intake to minimum items, mostly received through aid. The consumption pattern of the households in the open was observed to be extremely poor. The food relief for them is patchy and more or less they rely on their livestock and stored wheat. For both the groups, the food consumption pattern also suggests that there was no meat and hardly any fruit in the diet. The daily diet was mainly restricted to cereals (mostly wheat) and pulses.

## Early Recovery Interventions

To maintain food security among the affected population, a two-step approach is needed i.e. a) provide food aid and b) also to take steps to increase the purchasing power of the affectees. Separate early recovery interventions in terms of food will be needed for both the important groups i.e. land-owners and also the landless households.

For both the groups on their return, food assistance maybe be needed till the coming wheat harvest (April/ May 2011) as affected families have no resources to meet their food need. According to a rough estimate food aid would be required for 1.5 million people in the southern districts of Punjab. To provide food aid, accessibility will play an important role. Rehabilitation/reconstruction of roads would also be significant in order to achieve food security among the affected population.



Villages completely submerged in Jhang District, Punjab

Proactive support in the agriculture would help the food security of the affected with land. Assistance with fertilizers, seeds, cash and tools would be a help in the next crop. Free machinery should be provided for the leveling of the agriculture land. Agriculture loans should be waved off. Soft loans and cash grants should be given to the ones involved in the agriculture. Please note that the above

mentioned interventions are suggested for households having agriculture holding of 10 acres or less. For the food assistance to the population which is landless, non-farm livelihood support should be provided. For the rehabilitation of farms, infrastructure, program like food for work or cash for work can be initiated. Poultry assistance and fish farm cleaning can be other options.

## Livelihood

The population living in South Punjab mainly depends upon agriculture and livestock. Directly or indirectly, agricultural households are always vulnerable to the climatic uncertainties i.e. floods and drought. Despite this only 10 % of population is associated directly with the non-farm livelihood. The major sources of non-farm livelihoods in the affected region includes industries (Cotton Ginning & Pressing, Flour Mills, Jute Textile, Oil Mills, Paper/Paper Board Articles, Petroleum Products, Poly Propylene Bags, Power Generation, Readymade Garments, Solvent Extraction, Sugar, Textile Composite and Textile Spinning, Rice), trade (markets, general trading, hop keeping, fruit trading, clothing), cottage industry (handicrafts), services (Private education (teaching), legal services, barber and hair cutters shops, tailoring etc).

Considering that nearly 90% of the workforce in the floods affected regions is involved in agriculture and livestock, the non-farm sector can be an important pathway for source of income in short time and fast track for individual rehabilitation in the current scenario. In addition, non-farm employment has the potential to reduce inequality, absorb a growing labor force, slow rural-urban migration and overall contribute to the growth of individual income. (Doaba Foundation, Layyah)

## Impact

The recent floods have affected thousand of kilometer of land along the main rivers. The sources



People facing lots of difficulties regarding provision of fodder to the livestock in Jhang District, Punjab

of non-farm livelihoods such as factories, restaurants, textiles and construction industries were not affected. Please note that on the other hand the individual non-farm activities opportunities within the communities such as handicraft work, transport, jobs or private health worker were hugely affected. Almost all the services sectors were severely damaged in the flood affected area. However, it could be restored once the population is settled down and early recovery initiatives are taken in the area. Some of the services have been restored (e.g., Barbers, Tailors etc). The community markets in the affected regions were also destroyed.

The cottage industry (which mainly revolve around handicrafts) has been completely closed as almost all workers had to leave their houses in haste and their assets were completely or partially damaged during the operation. There is a common understanding that the raw materials used in the cottage industry and their tools may have wasted during the floods.

### **Coping Mechanism**

According to a rough estimate, from every fifth house of the affected area, men have gone to the other cities for work. The remittances sent by the migrant workforce constituted a good part of the family incomes and was also spent on food. Since the floods, men have returned to take care of their families, hence the decrease in the family income. Once, the houses are built and the community life comes to normal, the male migration for work would start.

To meet back the cost of daily subsistence living, the affected living in open spaces and with relatives are looking for daily wage labor. In the daily labor wage, supply is very high and demand at this point in time is fairly low.

### **Early Recovery Interventions**

Identification of female/child headed HHs without any livelihood means need to be determined on priority basis and special packages / projects need to be prepared for their economic well-being. Policy for women to be employed as non-wage worker, in the non-farm sector is required (handicraft, health worker, etc). Regular vocational skills training to be initiated – in line with market demands.

There is need for provision of increased coping strategies for vulnerable and poorest segment of population in shape of interest free micro loans or cash grants (for small entrepreneurship). Banks and MFI should be reactivated in the area and should offer small to medium scale interest-free loans (for example: Khushali Bank loan package in earthquake-affected areas).

Provision of free skill trainings as per demand in various sectors of market and free supply of necessary tools to the landless households would help in the early recovery of the effectees.

Provision of training of local vaccinator at community level with the help of live stock department can be a income generation source. Income generation activities for flood affectees in relief camps (involvement in camp management (educated persons), daily camp work and other labor intensive jobs) can also be a substantive measure in the non-farm livelihoods.



## Governance

Earlier, due to the devolution of power, public representative (district Nazim) was the highest authority, now-a-days it lies with the District Coordination Officer (DCO)<sup>5</sup>.

## Impact

There is a common perception with the range of stakeholders that around 15 to 20% of the affected population didn't evacuate on time i.e. were not able to leave with their valuables (livestock, documents and other assets). The district governments got a warning time of a week but they were unable to estimate the magnitude of the floods. All over the affected areas in Punjab, the population is scattered and therefore to reach out to a population which fell in thousands of kilometer was another challenge. Also, the households who were reached on time were not able to perceive the magnitude of the floods. The floods of a similar magnitude struck the area way back in the 1927. Lastly the sentimental value attached to the land, homes and livestock also played an important role in the untimely evacuation.

Police station under water in Rajanpur District, Punjab



<sup>5</sup> EDO Layyah, Punjab District



The affected households who evacuated in the last hour were unable to bring their legal (ID cards, property papers etc) and education documents. According to a rough estimate around 15 to 20%<sup>6</sup> of the affected population comes under this category in all the four assessed districts.

The district government is doing whatever is available in their mean but still there are lots of challenges. The district governments have so far not been able to register the affected. This is giving an opportunity for the non-affected population to get hold of the relief goods provided by a range of stakeholders. It is turning out to be a huge issue in the response phase and will create greater challenges in the recovery and rehabilitation phases. According to a rough estimate there is a large percentage of the affected population in the open spaces (along road side and stranded in higher places). Neither the government has the capacity to bring them into the camps nor are they interested to leave the site of their houses or livestock. In some instances like DG Khan, government is trying to provide them food on site.

The floods along with wiping out the infrastructure have also removed the demarcation mark of the land in the area. This along with the loss of property documents would give a great role to the Patwari.

Patwari is a term used for 'land record officer' at Tehsil level. As the lowest state functionary in the Revenue Collection system, his/her (mostly men) job encompasses visiting agricultural lands and maintaining record of ownership and tenancy. Due to their primary base in rural areas, where literacy and wealth is low, they yield a larger-than-life influence in the local community and are notorious for demanding bribe and changing land records at will. The communities, along with the CSO have highlighted this point and have requested for some special efforts to avoid victimization of the affected population.

A range of stakeholders are of the opinion that weak governance at the district level has played major role in turning this hazard into a mega disaster. One can find roads, blockades, encroachments in the middle of the canals and kucha areas.

The floods have also affected the government departments. The district government is still in the process to assess the damages. District Disaster Management Authorities (DDMAs) were not functional in any of the districts.

## Coping Mechanism

Bearing in mind the importance of the ID cards in the recovery process, the districts government of Muzaffargarh, DG Khan and Rajanpur with the help of NADRA have already started the process of duplicate cards.

District governments are trying to provide food to people living in the open. It is a general perception that a very small

<sup>6</sup> Flood Relief Cell, DCO Office, Layyah, Punjab



percentage of such households have been catered.

To enhance the capacity of the district governments, the officers in trainings and from other portfolios have been called to help-in.

## Early Recovery Interventions

An enhancement of the capacity of the district governments for both short and medium term is required. To respond efficiently and effectively to the response, there is a need to substantiate their efforts with the help of human, technical and equipment resources. In the next phase, DDMA should be strengthened with the help of civil society efforts in all the phases of disaster risk reduction. A range of stakeholders were of the opinion that establishing or notifying DDMA won't serve the purpose. Therefore, there was a clear division of roles and responsibilities, sufficient resources and political will would be required.

For the speedy recovery of ID cards, property and educational documents, NADRA could play an important role.

In the ER phase, efforts to develop building codes for the reconstruction/rehabilitation of houses and other buildings can be useful for the recovery process. Communities in the kucha areas are under the affects of seasonal floods and development/enforcement of building codes can be useful to enhance their resilience against the floods in the years to come.

The efforts to minimize the exposure of the population towards the floods can be very useful before the reconstruction phase. Declaring both sides of kucha area around major rivers as 'flood zone' can be useful. This would minimize the exposure.

The communities have requested time and again for the minimal role of patwaris in the demarcation of land. Usually the patwaris are responsible for 10,000 kms, stakeholders feel that for the speedy resolution of land issues this should be reduced to 1/4.<sup>7</sup>

The early rehabilitation of the government offices is must to ensure the speedy and efficient recovery of the affected population.



<sup>7</sup>Doaba Foundation, Layyah



Solid Waste Management is one of the immediate needs of flood victims in Layyah District, Punjab

## Community Basic Infrastructure

In Southern Punjab, Community Basic Infrastructure (CBI) comprises of link roads, wells, paths, small water channels for irrigation purposes, and common community spaces. Most of the community basic infrastructure is built on self help basis by community itself. These micro infrastructures are socially, economically and operationally linked with livelihood options, ensure basic services to its population and thus conceived as critical lifelines for survival of the populations in the community<sup>8</sup>.

It is very important to mention here that CBI are generally not accounted in the national, provincial or local government level budget and assets records/statistics. District line departments who have contributed to building of the community infrastructure, e.g. water supply schemes and tube wells, rural access roads, culverts and bridges and irrigation channels, possessed some of the general data reference.

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<sup>8</sup> UNDP – Guidance for recovery of Community Infrastructure

## **Impact**

It was observed during the assessment that almost 80% of the community basic infrastructure was either completely or partially damaged. The damages to community infrastructure and collapse of the relevant institutions have impacted on all spheres of life of the communities. The basic services like drinking water, electricity, and access to markets were disrupted. Economic activities also suffered. e.g. broken irrigation channels caused disruption of irrigation water to the crops. Difficult access resulted into higher commodities prices. It also impacted relief activities as well as access of the people to health care services. The affected communities showed top most interest in re-building their homes whereas community basic infrastructure remained second priority. Rehabilitation of water channels is also an important priority for the affected population.

The most important impact of floods is inaccessibility through roads, communication means, link roads and village paths. Restricted or lack of accessibility resulted in increased vulnerability of the affected population. Lack of community basic infrastructure can have adverse impact on the delivery of food and other relief goods to the affected population. It will also hinder early recovery and reconstruction activities.

## **Coping Mechanism**

The areas where water has started to recede has shown signs of recovery in terms of small scale economic activities. On self help basis communities have started rebuilding their homes and basic paths where water has receded. Accessibility is the top most priority in terms of all the phases from relief and early recovery to reconstruction and rehabilitation.

## **Early Recovery Interventions**

For early recovery interventions, the basic recommendation would be to ensure full participation of the communities in all phases of project interventions. Resumption of existing community based organizations, or formation of new ones with focus on women representation in a culturally sensitive way, would ensure ownership and sustainability. During the assessment, it was observed that there is a dire need for trainings and capacity building initiatives of local population. In the early recovery phase, there is going to be a need for masons and skilled laborers. Cash / Food for Work remained the top most recommendation from civil society and affected population.

## **Social Cohesion**

The process of early recovery leading to rehabilitation and reconstruction requires the maintenance of social order, access to and control of resources for securing livelihoods, social protection, the management of collective resources, and solidarity with the most vulnerable people in the community.

## **Impact**

The impact of floods on different dimensions of social cohesion is diversified. At one end, we find great humanitarian spirits from affected population by sharing their belongings and helping others, local influential persons sponsoring meals and other items for affected persons and volunteers collecting and dispatching relief goods. On the other hand, we see people fighting over small relief



Broken roads in Layyah District, Punjab

items, some inefficiencies and discrepancies are also observed at the end of relief providers.

Almost 30%<sup>9</sup> of the affected population moved to their friends and families at the safer places. The host families, mostly with very little household income, extend their help in whatever manner they can.

It was observed that there was no discrimination on the basis of religion, race or caste for distribution of food and other relief goods. There have been some cases of theft in vacant houses after the inhabitants left them in haste because of flood water. Some thefts of livestock are also recorded.

## Coping Mechanism

Unequal relief distribution is a major source of grief and social unrest. The district level stakeholders are trying their best to cater to the needs in an effective and efficient manner. Nevertheless, there are cases of looting and snatching.

## Early Recovery Interventions

The community involvement is the pillar for any early recovery program. From the social cohesion point of view greater participation will ensure social bonding. If the communities are alienated, this will



Siltation on the agricultural land creating havoc in Jhang District, Punjab

<sup>9</sup>Doaba Foundation, Layyah

develop isolation, lack of interest and ownership.

There is a need to register those affected on priority basis. In the process of registration, the district governments would need all kind of resources i.e. human, technical and financial. The demarcation of land issues should be settled on an urgent basis.

## Environment

Environmental issues, such as deforestation, degradation of soil, soil erosion, river bank cutting, were already pervasive before the floods in the affected districts. The floods have further aggravated the problems and have also created new issues. The immediate environmental impacts are

concentrated in areas which come under the direct affects of the floods. The environmental impacts in these areas are debris of the damaged houses and buildings, stagnant flood water, carcasses of animals that have drowned during floods and solid waste.



People have started clearing rubble in tehsil Jampur, in Rajanpur District Punjab

## Impact

According to the initial survey by the government of Punjab, nearly 500,000 houses have been completely destroyed by the floods. The debris of destroyed houses, especially the kucha, mainly consists of mud and wood. Due to the prevailing socio-economic poverty and less availability of construction material, a wide range of stakeholders including community is of the opinion that around 70% of the debris in the form of mud, stones and wood will be reused. The removal of debris from the Pacca houses and government building needs immediate attention.

Though the damage assessment in terms of livestock damages is still going on but according to a rough estimate the average losses in the affected districts is not more than 5%. According to the discussions with the community members the livestock has died due to the direct flooding or starvation when the people left them tied in their houses. In all the four accessed districts, assessment team has learned that the animal carcasses have been disposed by the Tehsil Municipal Authorities (TMA).

The floods have affected nearly 3.50<sup>10</sup> million acres of cropped lands. This includes cotton, sugarcane, fodder, mung, rice and vegetables. One can find standing destroyed crop on the agriculture land. Along with the standing crops, the stored wheat also got destroyed. The clearing of the field and the proper disposal of destroyed crops is a serious environmental challenge.

According to the TMA of the accessed districts, the generation of municipal waste before the floods was minimal in the rural areas. It was shared by the concerned lines department and also observed

<sup>10</sup> <http://floodrelief.punjab.gov.pk>





Children are worst affected due to flood in Punjab

during the field visits that the waste generation has gone up abruptly during the flood response with the relief items. One can find mineral water bottles, plastic bag etc in the road side, open fields, and streams. With no mechanism to collect and dispose municipal waste it is further deteriorating the environment with water contamination and air pollution.

In the affected area, fire wood is been commonly used as a source of energy. This was the practice before the floods, in the interim period people are using the same and will be following it also on their return.

The economy in the affected districts mainly consists of agriculture and livestock sectors. According to rough estimate only 5 to 6% of the labor force in the affected area is involved in various industries i.e. textiles (cotton ginning, pressing, spinning and ready-made garments) flour, paper, power generation and sugar). According to the stakeholder the industry in the region is agro-based, whose waste is minimal and is mainly used to produce other by products.

## Early Recovery Interventions

There is a need to rehabilitate river banks and steps to prevent soil erosion. To stop deforestation and use of wood as a source of energy, there is a need to facilitate the timely supply of timber, fuel wood, fodder and alternative sources of energy to the affected communities. The clearing of the agriculture land and a mechanism for the proper disposal of the destroyed crops needs immediate attention.

<sup>11</sup> Consultative meeting with CBOs, NGOs in Muzaffargarh

## Balochistan



Early recovery has been initiated by people themselves in Jaffarabad District, Baluchistan





## Background

The recent monsoon rainfall, flash flood and riverine flood has brought devastation in a vast area of Pakistan including Balochistan province. The province has experienced the flood in two phases. The first phase occurred in July and affected the districts of Barkhan, Kohlu, Harnai, Lasbela, Loralai, Sibi, Kachi and Zhob and the second phase occurred in August severely affected the districts of Jaffabad, Naseerabad and Jahl Magsi.

The current toll of historical disaster prevailing in the country started from Balochistan Province when heavy rains hit its Eastern districts on 22 July early morning causing hill torrents and flash floods resulting significant damages to human life and property. The affected districts included Barkhan, Kohlu, Sibi, Kachhi and outer skirts of Naseerabad. The month of July ended with 22 people dead, around 50 missing and left some 10,000 families without shelter and food. Village Thalli, 35 KM East of Sibi Town, consisting of nearly 10,000 people, as a result of flash floods had totally been raised to mud and sludge leaving behind no house with a single roof or wall intact.

## Food

The floods swept away homes and infrastructure, ruined standing crops and inflicted severe damage to the

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Source of data in Balochistan: District Census Report and Board of Revenue

economy. As a result of inundation hundreds of thousands of people fled the southern Sindh town of Jacobabad and District Jafarabad to Sibbi, Nasirabad and Quetta districts of Balochistan posing enormous challenges to the government with regard to provision of food, clean drinking water, medicine and shelter. The number of Internally Displaced Person (IDP) camps kept on increasing in Quetta, Sibi, Bakhtiarabad, Nautal and Naseerabad.

## **Impact**

The recent catastrophe of flood has severely affected thirteen districts of Balochistan and the most affected districts are Jaffarabad, Naseerabad and Sibbi (PDMA Balochistan). 90 % area of Jaffarabad district has been completely inundated up to 10 feet initially. The total population of the district got shifted to other places and the people in some areas strangled in the flood water. The affected people of Sibbi and Kachhi are getting adequate food but there is acute shortage of food in Jaffarabad and Naseerabad where less than 50% of the affected people are getting food. The people are getting malnourished due to extreme heat, lack of food, scarcity of potable water and unhygienic living conditions. The children, infants, pregnant women and the poor are the most vulnerable. Secondly, it has been observed that extreme hunger is turning people into beggars.

## **Coping Mechanism**

Some of the affected people shifted to the camps established by the district administration, some others in the houses of their relatives in other areas/towns and few have sold their livestock and other assets like jewelry in order to cope with the requirement of food.

## **Early Recovery Interventions**

The registration of the affected people needs to be carried out immediately. The displaced people should be shifted to their own villages or new camps to be established near their villages. The people of Jaffarabad district may be accommodated in the camps established in the adjoining district of Nasirabad until the water recedes there. In the meanwhile extraordinary efforts are required from the provincial irrigation department to make a strategy for draining out the stagnant water from Jaffarabad district.

The PDMA at the provincial level and the district administration should be strengthened. Food supplies need to be enhanced manifold according to the actual needs of the affected population. The needs of the children, babies, and pregnant/lactating females should also be catered in order to avoid malnourishment. A strategy should be devised to engage the people in work or in various trainings of skill and in lieu they can be provided food. Similar interventions could also be carried out for the females who could be given trainings on farming, livestock management, kitchen gardening and tailoring. Besides, food for education programme can be arranged for school going children in tent schools.

## **Livelihood**

### **Impact**

Almost half of the population (50%) in these four most affected districts are dependent to various

trades like shop keeping, labor work on daily wages, masonry, plumbing, embroidery, tailoring, transport, public and private jobs, running hotels and business. The flood has severely affected the sources of income of the people who were dependent to all the above professions. The people are found to be in the state of trauma and they are worried about rebuilding their houses. Most of the people have lost their belongings, shops along with the commodities and they are unable to restart their work in the present situation. Many are of the view that they cannot even feed their family and children, since during normal work days they were unable to make their ends meet with what they had earned.

Majority of the people want to go back to their own villages and they need immediate support in rebuilding their houses. Presently there seems no pragmatic plan with the government or with any other agency/organization for the early livelihood recovery of the affected population. Seeing the volume of relief requirements of the affected and displaced people the collective resources of the government, NGOs and donors are meager.



Arabail a female from Jaffarabad district says “My husband was running a restaurant and my elder son had a shop which was quite sufficient for the livelihood of our family but the flood has completely damaged the buildings and other commodities of their established business. Now they can not afford food and other requirements of their family, therefore, they have shifted in the camp to get food for her children”.



Apart from Jaffarabad district, the damage assessment in other districts is near to completion where grants can be given as compensation for the damaged houses in accordance with the volume of damage. The shops, tube wells, and other losses can be compensated in shape of easy loans/ grants. To ensure transparency and equal access to the resources a committee can be formed at the district level which should revalidate the losses after physical verification and thorough survey. This committee should have the representation from the district administration, technical members, civil society and donors. In addition skill development trainings can be organized for the unskilled labors, widows and other vulnerable people to provide them opportunity to other avenues as alternative livelihoods. It will also create employment opportunities for such people who otherwise will have depression and psychological problems. Commissioner Naseerabad division is of the view that a sharp increase has been observed in the patients of psychological disorders since many of the basic needs have not been met.

The catastrophe of flood has created an impact to the nonfarm livelihoods along with those dependent on farming. Millions of acres of agricultural land with standing crops got inundated and at the same time the villages, towns and cities have also been severely damaged. A large number of people belonging to every class/group and profession in the region have been affected to a great extent. Along with houses, livestock and other valuable assets the sources of income of these people have also been affected. The businessmen, shopkeepers, private employees, skilled and unskilled labors, transporters and others have become jobless who otherwise were earning to provide for their families' everyday needs. Their houses, assets have got damaged and those who had some savings for a rainy day have spent their money on transportation to get to a safe place.

## Coping Mechanism

Some people have started cleaning the debris of their houses and shops and they have taken loans from their relatives and friends to rebuild their business. Some others have shifted to other towns and cities living temporarily with their relatives. They are making efforts to find jobs. But ratio of such people is very low. The majority is unable to find such opportunities; they are expecting the government and donors to help them in reconstructing their houses and re-establishing their livelihoods. The people of Jaffarabad district are waiting for the receding of stagnant water that is crucial for their recovery.

## Early Recovery Interventions

Presently there is no visible intervention for the early recovery of the livelihoods of the flood affected population. Although there are plans for the government to provide tractor/bulldozer work for the farm lands however but the nonfarm livelihood interventions have been completely ignored.

A committee should be formed at the district level with representatives from the district administration, civil society, donors and NGOs to assess and revalidate the losses of the shops and damages of other businesses and award loans on easy terms/grants to the affected people.

There is a need for special skill development training sessions to be organized for the affected people to provide them better opportunities of livelihood. Skilled and unskilled labors should be provided tools and other necessary equipments which would be helpful for their recovery. The poor females and widows should be provided trainings on various skills of local embroidery, carpet weaving, kitchen gardening and tailoring.

## Governance

Twenty to thirty percent of those affected may have lost some sort of important legal documents like NIC, academic certificates, local/domicile certificates, passports, property papers and others. The process for normal period is usually complicated and lengthy in obtaining such legal documents. Extraordinary steps in this regard are required for assistance of the affected people so they can obtain their important documents.

PDMA, the Army, Frontier Constabulary and NGOs have carried out various rescue and relief operations. They have rescued thousands of people and providing food, shelter and health services to the affected people. The PDMA and provincial government are not getting any commendable support from the federal government. Despite repeated requests from the Provincial Government/

Mohammad Bakhsh owner of a medical store says "My shop has been severely affected flood water and all the medicines worth 5-6 lac rupees were damaged. It was the only source of income for my family". Another affectee named Shahmir, who is a driver from Sohbatpur says "I did not have enough money to shift my family to a safe place on a rented vehicle as the rents got increased by 4-5 times more than the actual. We had to walk for about 60 KMs from Dera Murad Jamali to Bakhtiarabad and it took us 4-5 days to get there. For four days we did not have shelter and enough food, we were living in open sky in this striking heat. Yesterday we got a tent and now getting food. How should I leave my family and children to go and find a job?"





PDMA there has been little response from Federal Government. The provincial government does not have sufficient resources and capacity to cope with such a catastrophe alone. At the provincial level serious governance issues have also been observed. Various agencies and organizations are working for rescue and relief independently.

Similarly there is also a huge coordination and support gap between the provincial government and the districts. In Sibi Division it was observed that the coordination among various agencies was effective but the human and financial resources were meager. The Deputy Commissioner Sibi has very effectively managed the IDP camps and also ensured food, health facilities and tents among the affected people but he has been carrying out relief operations on credit and borrowing from the market. His office does not have adequate budget allocated for relief activities. However, there is a serious coordination gap in Naseerabad division which has the largest number of affected people and IDPs from Sind. The NGOs are only coordination with district government but other agencies and donors operating in the area are not properly coordinating with district administration. The relief operations are being carried out in a haphazard manner.

## **Impact**

The recent catastrophe has affected the population on one hand and the government machinery in the districts on the other. The responsibilities of the government employees have increased because of the damage of infrastructure, government assets, rescuing and providing relief to the affected people and looking after a large number of IDPs from Sind province. Due to inundation of the entire district of Jaffarabad, the offices and record of almost all the departments got affected. The district machinery has been moved to the adjoining district of Naseerabad. The office buildings and residences are not enough to accommodate the government employees of two districts. It is beyond the capacity of the district administration even of the Provincial Government to respond to such an unprecedented emergency situation.

## **Coping Mechanism**

The district administrations of the affected districts and the provincial government have taken some pragmatic steps to improve the response of the flood. Initially without any adequate resources the government with the help of other organizations rescued the affected people and then established various camps. These camps were supported by the PDMA/provincial government, NGOs and donors. Things are now getting streamlined at the provincial level as well as at the district levels. The district administration and other government functionaries of Jaffarabad have established their offices in the adjoining district. Though this arrangement is temporary but government has kept on delivering without any interruption. Similarly, the levies personnel and revenue patwaris have been engaged in the emergency work in order to cope with emerging catastrophe. The provincial government has posted efficient and experienced officers in the flood affected districts in order to tackle the situation more effectively.

## **Early Recovery Interventions**

The recovery of government functionaries/institutions in the flood affected districts is critical for effective governance in responding to the extraordinary situation. Almost all the government buildings including furniture and record in Jaffarabad have been damaged but the estimation of losses is not



possible presently because access to the complete district is restricted. These buildings are 5-6 feet submerged in stagnant water. Therefore, the following steps are recommended for early recovery interventions:

- The provincial government should issue a notification directing the staff of line departments to report to the Deputy Commissioner during the relief and recovery phases of the flood affected districts.
- All the donors and other agencies carrying out relief operations should be directed to have a strong liaison with PDMA at the provincial level and the Deputy Commissioners at the district level in order to avoid any duplication. A strong coordination will also help in identifying the gaps and improve the efficiency of all organizations.
- The government offices and residencies in Jaffarabad district need an immediate recovery plan since they are presently submerged in the stagnant water. As soon as the water recedes the old buildings may be repaired. If the buildings are in dilapidated condition then temporary offices and residencies should be established.
- The affected people who have lost their important legal documents may be provided counseling or the responsible institutions may be pursued to relax the complicated procedure for these people.
- A team of senior and efficient officers and medical doctors should be deputed in the districts of Naseerabad and Jaffarabad to support of district administration for a period of 3-4 months.



Animal corpses are a serious environmental and health hazard in Baluchistan



Stagnant water in the markets has put an end to the livelihoods of hundreds of villagers in Baluchistan

## Community Basic Infrastructure

The recent flood has adversely affected the basic infrastructure of the community like water supply schemes, electricity supply, electronic communication, roads, sewerage system, schools and hospitals. The problems of the people have increased due to damages of the basic infrastructure. Many diseases like gastro, malaria and other water borne have spread due to non-functioning of water supply tube wells. The people are forced to drink contaminated water of ponds and other unhygienic sources. Similarly, large portions the main highway and the railway track have been damaged that has curtailed the mobility of the people. Many affected people cannot get effective assistance due to inaccessibility. The road and railway line connect Balochistan with the provinces of Sind and Punjab. The road is one of the busiest in the country where thousands of the vehicles ply every day however due to the damages thousands of people, transporters are being affected. The sewerage system of many villages has affected the lives of the people.

### Impact

The damage of community basic infrastructure has created unbearable problems for the community in the flood affected districts. Thousands of people have got struck due to damages to the railway line and the highway between Balochistan and Sind provinces. This road provides access from Balochistan to Sind and Punjab. The transporters, restaurants, drivers and conductors and other shopkeepers are usually dependent on highway traffic for their livelihood have been severely affected by the floods. Similarly many water supply schemes, health and education facilities have been damaged affecting the lives of the people to a large extent. A large number of people do not have access to potable drinking water, schools and basic health facilities.

### Coping Mechanism

Steps have been taken to recover the roads without which rescue and relief work for a large number of people would have not been possible. Similarly the water supply schemes, health and education facilities with minor damages have been recovered in some areas. Other places where these facilities could not be recovered, efforts are being made to supply water through water tankers. A temporary tent school has been established in the camp of Sohbat Saray where female teachers have been engaged to teach the young male and female students. And the government is planning to open more tent schools in the camps and affected areas. DHQ Jaffarabad has become non-functional however; a temporary hospital has been established at Dera Allayar through Turkish Government's assistance where the patients are receiving proper treatment. Some other NGOs have established temporary health facilities in the camps of Sibi, Kachhi and other affected areas where patients are being looked after.



Malika, a female from Osta Mohammad, herself having primary education is very desperate for her children's education but seems disappointed from the present situation, she says "My children's education have been affected very adversely, they could not go to the school for last four months, their life is being spoiled... we are very poor, our house has been completely damaged, my husband is a labor but still I emphasize that the schools should be rehabilitated on priority". Many schools have been damaged that has affected the academic year of school going children.





## Early Recovery Interventions

Thousands of people's everyday lives are dependent on the above mentioned CBIs and many others' rely on these infrastructures for their livelihoods. The following interventions are recommended:

- A strategy should be devised by the provincial government for immediate recovery of water supply schemes and sewerage systems in the first phase for the areas where flood water has dried.
- Temporary weather and culture friendly shelters for education and health facilities where major damages have occurred should be established and the minor damaged buildings should be repaired.

## Social Cohesion

The majority of the flood affected people were found traumatized. During FGDs it was observed that some incidents of social issues were reported among the vulnerable, e.g. petty disputes during food/ration distribution, increase in theft, security and socio psychological problems. These issues are being resolved through the local administration, camp management and camp committees. The cases of theft are reported to the police and levies through lodging First Information Reports (FIR) and the respective agencies carry out the investigation and make efforts to apprehend the culprit. The psychological problems are addressed by health teams through counseling and treatment.



A child helping people to evacuate from a village on a "charpai"

The land and property issues may increased in Jaffarabad districts after recession of flood water from the area on re-fixing the agricultural boundary lines. Such disputes are usually resolved by the patwaris and tehsildars of the revenue department and in some cases by the elders and jirgas through tribal norms.

## Impact

Among the repercussions of the recent disaster the increase in social problems of the affected community cannot be ignored. Some instances of theft cases and petty disputes have been reported. The vulnerable population is worried about food/ration and rebuilding their houses. The cases of psychological disorders are being gradually increasing among these people. Some previous well off families are seeking help for food and babies' nutrition. The children of IDPs have also been

observed begging for financial and other assistance.

## Coping Mechanism

Those people who are living in the camps are being managed and controlled by the camp management, district administration and by organizing committees where petty social issues are immediately resolved. Many families have deputed one male member from their respective families at their deserted houses to avoid theft of their belongings/assets. The people with depression and other psychological disorders are being provided the services of counseling and treatment at the established medical camps.

## Early Recovery Interventions

The social problems can be addressed to a great extent if the following interventions are carried out:

- The mechanism of food/nutrition assistance is made in an organized way to ensure that every affected family receives adequately in a dignified manner.
- All the affected families and the vulnerable, in particular, should be assured that they will be assisted in rebuilding their houses.
- Health and education services should be provided to the children.
- Some practical steps should be taken for early livelihood recovery of those involved in farming and non-farming occupations.
- Consistent and frequent counseling services to be provided to the destitute, widows and other vulnerable.

## Environment

In response of the community interviews the following environmental issues were identified before and after the recent catastrophe:

No	Issue	Before	After	coping
1	Stagnant Flood Water	Very low almost negligible	90% area of JA district inundated up to 6 feet	No practical steps taken
2	Animal Caracasses	Very occasional	Thousands of dead animals	No practical steps taken
3	Debris/rubble from damaged buildings	Very slight	Almost everywhere debris found	At individual capacity by tractors or self
4	Sewerage problems	There were sewerage problems	Increased manifold	No practical steps taken
5	Deforestation	In villages where no gas connections available	Tremendous increase	No practical steps taken
6	Soil erosion, mudflows, riverbanks cutting	Gradually happening	Intensified	No measures adopted
7	Mud, silt, sand deposited in houses, courtyards and farms	Slightly happened only in the farms	Tremendous increase	Being cleared other than JA district

8	Affected flood protection bunds	Few incidents	Enormous increase, most of the flood protection bunds affected	No practical steps taken
9	Water pollution	Not much polluted	Intensely polluted	Potable water being supplied in most of the areas
10	Solid waste	Not exposed	No proper system for solid waste management	Some inadequate measures taken

The community energy sources ascertained from the community are as follows:

No	Environmental issues	Before Floods	After Floods
1	Cow dung	Yes	Yes
2	Biogas	No	No
3	Fuel wood from forest	Yes	Yes
4	Fuel wood from farms, orchards	Yes	Yes
5	Kerosene oil stove	Yes	Yes
6	LPG	Yes	Yes
7	Natural Gas	Yes	Yes
8	Electricity	Yes	Yes

In the larger towns of Sibi, Jaffarabad, Dhadar and Deramurad Jamali the supply is available at the household level, majority of the population is dependent on natural gas for their energy sources but after the floods the gas supply has been disconnected for some days and the people are using fuel wood and electricity as the alternate source for kitchen purposes. However, the IDPs of Jaffarabad are still dependent on fuel wood and cow dung for cooking. The flood has severely affected the systems of solid waste management and sewerage. Usually pits are used for solid waste management and new pits will be dug out for restoring the system at household level. The villages and even the most affected town of Dera Allah Yar do not have any sewerage system.

Majority of the houses are built from mud in the rural areas of Balochistan. The people will clean the debris of their own houses but dispose it off near the villages and streets manually or by using tractors. There is no plan for proper disposal away from the population. Disposal of stagnant water is beyond the capacity of the community. However, the Commissioner Naseerabad has already requested the technical department of Irrigation and Power for draining off the stagnant water to the natural course of water flow. Precautionary steps will be taken to avoid inundating



Women carrying water to the nearby relief camp in Baluchistan

any other population or standing crops. The dead carcasses of animals will be disposed off by the municipal and town committees away from the population. The most challenging task is restoring the environment is draining off the stagnant water from JA district and disposing off the carcasses of the dead animals which needs to be carried out immediately.

## Impact

The recent flood has brought a challenging issue of environmental pollution in the affected districts. Water is polluted and contaminated which has aggravated the diseases of gastro, acute diarrhea, diarrhea, clinical malaria and skin diseases. Many deaths and weaknesses have been reported due to the water borne diseases. Similarly the systems of solid waste and sewerage have also been affected which has exacerbated unhygienic conditions among the affected population.

## Coping Mechanism

The patients of water borne and environmental related diseases are being treated at various health facilities in the affected areas. Few NGOs have installed some water filtration plants and also providing latrines for disposal of solid waste in the camps. These filtration plants and latrines are not sufficient for a huge population of affected people. But no pragmatic measures were observed for coping with the issue of environmental pollution. There was even no plan available with the government to combat environmental pollution.



Traditional Balochi Women in a camp in Naseerabad.

## Early Recovery Interventions

The environmental pollution is comparatively a slow but the most dangerous enemy of human and animal lives. Some proposed urgent interventions are required for cleaning the environment which is as follows:

- A pragmatic measure needs to be taken for draining out the stagnant water from Jaffarabad district and at some other pockets of the affected areas.
- The dead carcasses of animals should be disposed off appropriately.
- Spray for mosquitoes should be carried out effectively.
- The sewerage systems where available should be restored.
- The systems of solid waste need to be rehabilitated.
- The sessions of awareness campaigns for environment, health and hygiene should be conducted.

## Khyber Pakhtunkhwa



Men carrying shovels and clearing debris in Rajar, Charsadda District, Khyber Pakhtunkhwa





## Background

The July 2010 floods have surpassed the physical destructions caused by all the disasters Pakistan has faced. 1,248,704 houses have been damaged, with 1,677 deaths<sup>13</sup>, thousands injured and missing, and millions displaced and stranded in the flood water. This disaster affected a large population in the Indus river basin. Khyber Pakhtunkhwa is worst affected in Northern Part, Middle and southern part, the devastation was not limited to these regions. Nowshera, the worst affected district was sandwiched between the floods water in river Kabul and Indus. This situation was worsened by the flash floods from the Chirat area. The standing water reached up to 20 to 25 feet in some areas in Nowshera District. The rain and floods have wrecked the major and minor infrastructure, flushing away the houses, roads, major bridges, electricity network, communication linkages, livestock and extended agriculture land. The most of the affected of the provinces is KP, which was just reeling from the war against terror and displacement of its hundreds of thousands people during the war, when again hit by the crisis and this time by a natural one. The flood has expelled people from their homes and villages. Majority of them are living on the roof tops or are utilizing public facilities which are not damaged, and a large number have taken refuge on the motorway, or highways.

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<sup>13</sup>NDMA situation report 31 August 2010

Sources of data in KP: District Coordination Officer; Noshera, Charsaddah and Swat, PDMA and meeting held with flood affected communities

Damages in KP	
Total Population (m)	25.228
Dead	1,068
Injured	1,109
Total Population Displaced	912,999
Population inaccessible	660,000
Affected Villages	544
HH Affected Approx	546,003
Source: PDMA Website – 1/Sept/2010 – For Details Annex - I	



Sugarcane crops destroyed in village Wadpagg, Peshawar District, KP

## Food

Eighty percent (80%) population is dependent on agriculture in severely affected districts of Khyber Pakhtonkhwa; the rest of the population is involved in livestock, labor, jobs and others. Almost 95% of the agriculture crops/lands were flushed away with devastating flood. The major sources of income and food are agriculture and livestock.

## Impact

The over whelming flood left 1,22000 people without food in 36 affected Union Councils of



Sand and mud adulterated wheat grains in Noshera District, KP bottom:



Nowshera. Community while evacuating could not save or bring anything with them from their homes. Their houses, livestock, food and non food items were washed away with the floods. The most affected union councils are still suffering from the shortage of food items. While the affectees of Khadazai, Rajjar in district Charsadda were still living without food. They are helping each other as did not receive any relief items/goods from Government or from any other agency.



A shepherd taking his goats for grazing land near his village in Mera Akora Khattak, Noshera District, KP

## Coping Mechanism

Local population has been working together for arrangement and provision of cooked foods in the main villages. Most of the victims have started reconstruction of their collapsed houses and shops with helping each other.

## Livelihood

Khyber Pakhtunkhwa has an agriculture based economy. However, quite large portion of the population is engaged in non-agriculture economic activities. Such off farm activities are covered under the Non-Farm Livelihood. July 2010 floods had not only affected the agriculture, but also severely affected the Non-Farm livelihoods. Major industries, however informal sector like wage labor, wheelbarrow owner, arts and crafts etc. Majority of the labor force involved in the agriculture activities are out of job, though would be engaged for the next season's crop cultivation. However, for the time they are in dire need of cash flow to re-instate there live, and get ready for next session crops. The non-form livelihood sector has a potential to inject quick cash in the local economy, and would absorb the growing labor force.

## Impact

The recent flood in the province has destroyed vast lands in plan, and curtail infrastructure in the Mountains. Almost 507,423 hectares of standing crops were destroyed. The devastation is caused in all section of life, livelihoods both agriculture and non agriculture has directly or indirectly affected.

The destruction of the road networks affected the industrial sector. Major market i.e. Nowshera Cloth Market etc. are directly affected. The cottage industry had the similar pattern of the affects, as particular case, Salampur Village of Swat had a quit strong home based waving industry, which is affected indirectly in terms of destruction of network, price hike in raw material. The local market in Mingora City is also adversely affected just in start of the season for this particular industry.

As per the statistics of the government of Khyber Pakhtunkhwa, a total of nearly 400,000 houses have been completely washed away by the floods. Owing to the majority mud-made houses, calculated estimates reveals that around 70% of the debris is in the form of mud and stones, which will be reused. However, the removal of debris from the bricks-made houses and government building needs immediate removal.



Women in Noshera, KP are highly skilled in hand embroidery. They earn their livelihood by making and selling beautiful hand embroidered pieces to traders coming from major cities



Old men displaying their non functional handlooms  
in village Ghari Kakakhel, Charsadda District, KP

## Coping Mechanism

Majority of the affected community are busy in cleaning of their houses, streets and belongings. Some male members are receiving daily wagher job. The community is also counting on the aid provided from various organizations and individuals. The worst affected community is the tenants and farmhands. One such particular community in Hassar Koroona Village of UC Hassar Ysinzai in district Charsadda, the community was residing in the NRSP sponsored camp, while the young man were busy in the restoration of houses, streets, drainage through cash for work.

## Early Recovery Interventions

A detailed community level assessment would be required on immediate basis to identify the most vulnerable HH (Women Headed, Child Headed, Old Aged Headed, large dependent family (+5 dependent/Earner). An immediate Cash Grant should be activated, however this should be supplemented for re-instating any sustainable livelihood.

The majority of the flood affected population had lost their belongings, savings and stock food. The dire need is to inject the cash in the community so they sustain their daily expenses. Cash for Work in the local community is the best option.

The floods have affected nearly 2.75 million acres of agriculture land along with the standing crops that includes rice, maize, sugar-cane and a number of vegetables and fruits. The cleaning of debris of standing damaged crops is a challenge for the affected population.

Losses in the housing and CBI would create labor intensive demand for reconstruction, where skill based employment would be in demand especially in masonry, electric work, carpenter etc. The free toolkit provision will also attract a good number of youth.



People removing debris in UC  
Noshera Kalan, Noshera District, KP

The small business and cottage industries have also suffered, in term of goods lost, tools and infrastructure losses. Micro grants and finance would help this sector to revive.

## Governance

### Impact

Most of the stakeholders believe that around 30 % to 35 % people did not evacuate on time for various reasons. As the floods are routine phenomena for the inhabitants of several districts in Khyber Pakhtunkhwa, this year also the people considered it of the same intensity and opted to stay back, instead of evacuation. The affected people as well as the government believe that it is the worst-ever floods in the history of Khyber Pakhtunkhwa. Secondly, the lack of coordination between government departments also increased the miseries of population. Thirdly, the affiliation with homeland also proved to be a factor for non-evacuation of the people.

As the floods hit most parts of the Khyber Pakhtunkhwa in night, it was difficult for the affected population to carry their legal documents (National Identity Cards, Property Papers and Education Documents etc). As per the gathered information in the four assessed districts, around 25 to 30 % of the affected population has lost their legal documents.

The floods along with damages to infrastructure have seriously damaged the agriculture fields, as most of the fields do not carry demarcation or boundary lines. With the emerging scenario, the role of the Revenue Department is quite important to facilitate the people and to help overcome the land disputes between the affected populations. In some of the areas, where the affected population has lost their property documents, the Revenue Department has to face a serious challenge.

The floods have also affected the district government buildings in all the four assessed districts. The district administration is carrying out detailed survey to ascertain the damages to the buildings. In District Swat, the district administration mentioned that only re-furnishing (white wash, cleaning of buildings etc) is needed and the buildings are not damaged structurally. While in District Nowshera, the district administration mentioned that Revenue Department is the worst affected and their building is fully damaged.



PRCS medical camp in Noshera, KP

### Coping Mechanism

To overcome the issue of damaged buildings, the Revenue Department in district Nowshera been shifted to the DCO Office. However, this is a temporary solution. On the other hand, in district Swat, the district administration is fully functional, despite the collapse of several connecting bridges on roads.

In district Nowshera and Peshawar,



NADRA has been mobilized for issuing duplicate National Identity Cards to the affected population. However, there is a general demand, that the mobile van service may be increased, as the existing support is insufficient.

The district government has decided to provide cooked food to the affected population, who has taken refuge in government buildings till 31st August, 2010. The district government informed that from then onwards, WFP will be supporting the affected population, as per their own mandate.



A man carrying fodder on his back in village Hisaar  
Korrana, Charsadda District, KP

## Early Recovery Interventions

Timely rehabilitation and recovery of the district government buildings should be prioritized, as it would ensure the delivery of services to the affected population. Capacity development at district level was underlined as need of the hour by most of the stakeholders including human and technical (equipment etc) support.

Operationalization of the DDMA must be considered on priority basis along with its capacity development. All the stakeholders were of the view that only notifying the DDMA may not serve the purpose, rather the DDMA must be equipped with human and technical resources. Furthermore, the civil society pointed out that clear division of labor must be earmarked to overcome the lack of coordination between government departments.

Timely recovery of property documents may help in on-farm livelihood of the affected population. For the purpose, the Revenue Department must be strengthened with additional human resource and technical skills.

For the recovery of National Identity Cards, NADRA may be strengthened to increase the mobile van service in the affected districts. Furthermore, the universities may be approached through Higher Education Commission to expedite the process of issuing duplicate degrees and marks sheets to the affected population.

## Community Basic Infrastructure

The flood affected areas in KP can be roughly divided in two regions, first the hilly area of Swat and second is the plain area of Peshawar valley and DI Khan. The nature and devastation of the disaster is different in the two types of region.

Where the CBIs were washed away in the hilly area, these were submerged in the planned area. In the hilly area the high velocity flow of water was the main cause of destruction, in plains it was the standing water. The CBI list includes but is not limited to link roads, street, culverts, small bridges and



wells. The community infrastructure is not on the inventory lists of the Government Departments. It is therefore required to do detailed listing of the CBIs in the community. This is also demanded from the district authorities.

## **Impact**

The CBI is the most affected sector, both in the hilly areas and in the plains. The worst affected districts in term of infrastructure are Malakand, Swat, Dir Upper and Battagram<sup>6</sup>. However, it is worth mentioning that the data reported through district authorities doesn't give detailed CBI damages, it mostly includes large infrastructures.

The CBIs destruction worst affected the accessibility, which adversely affecting the rehabilitation effort. The accessibility in the hilly area is major issue. The synonymous need of detailed inventory building of the CBI emerged during discussions with district authorities. The CBI would require large investments to restore, however it also provides an opportunity to inject the cash in local economy. The CBI reconstruction, also provide a tool to reach the poorest or poor. The community were agreed both for Cash for Work and Food for Work Mechanism; however Cash for Work was on priority.

Damaged Buildings in Noshera Kalan, KP



## Coping Mechanism

The community is coping with situation through self help basis, especially cleaning the streets from sludge and mud. In hilly areas community are using alternates means for commuting, included mule and pony for transportation. The community is also cleaning their wells on self help bases, especially in absence of water supply scheme or contamination of existing distribution systems.

## Early Recovery Interventions

The synonymous need of detailed inventory building of the CBI emerged during discussions with district authorities. The CBI would require large investments to restore, however it also provides an opportunity to inject the cash in local economy. The CBI reconstruction, also provide a tool to reach the poorest of the poor. The community were agreed both for Cash for Work and Food for Work Mechanism; however Cash for Work was on priority.



Completely damaged kitchen showing the devastation caused by flood in Noshera, KP

## Social Cohesion

### Impact

So far in all the four assessed districts, the registration of affected population has not started. In the early recovery phase, the registration of affected population is very important. Generally there are some conflicts on land but during floods the people helped each other regardless any previous disputes. The community used to resolve their problem through Jirga. They can be helped by providing legal support and they need to understand the legalities. Land disputes are arising due to floods as water washed away the boundary demarcation lines. The District Government and Revenue department are trying to find a solution. Water drainage in collapsed/damaged infrastructure is the major reason for disputes and it is aggravating the situation more.

## Coping Mechanism



People with disabilities are amongst the most vulnerable because they are often left out in development efforts due to their being “detached” from the rest of the community.

Wadpaga is one of the exemplary UC for its volunteerism. The people here collected funds of Rs. 200,000/- and donated food and non-food items for IDPs in Swat. Also during the flood, the community used to cook food and distribute it among the displaced population. Local Government is trying to resolve these dispute since most of the Jirga systems have also been affected by the flood.

### Early Recovery Interventions

The demarcation of land issues should be settled on an urgent basis by conducting training on communication and social mobilization regarding awareness of their legal rights etc. The community needs trainings for clear understanding of such disputes and its resolution. Communities can also be engaged in activities for promotion of volunteerism.

### Environment

Some of the environmental issues including deforestation, soil erosion and river bank cutting



Blocked drains and open garbage in Noshera, KP



A girl washing clothes in camp River Kabul, Noshera, KP

have worsened the situation and thus paved the way for floods and other natural disasters. The recent floods have though given birth to some new challenges, as the previous environmental issues are replaced with the new one. Some of the newly emerged environmental impacts in these areas are debris of the damaged houses and other infrastructure, stagnant flood water, carcasses of animals drowned during floods and solid waste management.

## **Impact**

The stored wheat, maize and rice in houses have also been damaged. The damaged grain is producing very pungent smell, thus posing a serious threat for environment. The Kabul River in Charsadda and Nowshera is causing soil erosion and riverbank cutting. At the same time, the Kabul River is prone to cultivation in the nearby areas of river, vegetation on riverside and forestation in main river canals, thus causing hurdles in the passage of river water.

## **Coping Mechanism**

During the field visits, it was observed that the affected population have drained out the stagnant water from their houses and fields.

The people in the affected areas are using wood as a source of energy. This was the same before floods and may remain the same even after the floods. The TMAs of the affected districts pointed out that the solid waste before the floods was minimal and has multiplied by several times, after the floods. The remains of the relief items including mineral water plastic bottles, plastic bags and juice / milk packs are seen lying everywhere. During the field visits, it was observed that these solid wastes are posing a serious environmental hazard in the areas.

## **Early Recovery Interventions**

There is a dire need to enable the flow of water and clear the riverbanks and riverbeds of various hazards through plantation. Furthermore, alternate energy sources may be introduced among the affected population to overcome the environmental issues. The clearing of the agriculture land and a mechanism for the proper disposal of the destroyed crops needs immediate attention.

# Sindh

A traditional  
Sindhi girl  
smiling even  
at the times  
of acute  
distress







## Background

Pakistan's deadliest floods in eight decades hit the province of Sindh, after causing devastation in the country's three other regions and leaving more than three million people stranded.

The area most at risk in Sindh lies in between the cities of Sukkur and Thatta, which are about 340 kilometers (210 miles) apart and where one million people in 2,000 villages have been affected. According to PDMA Sindh, a total number of 7,277 villages are affected due to floodwater, leaving over 7 million people displaced.

It was further reported that 1,060,680 houses have been damaged, 2,62,264 cattle died, while crop comprising 2,453,503 area also damaged due to floodwater. Total 186 persons died and 909 persons got injured in flood devastation. Health Department also added that patients of different diseases are increasing in relief camps as a huge number of 1,86,407 people especially children reported patients of diarrhoea, 34,449 patients of Gastroenteritis, 1,73,592 of acute respiratory infection, 1,29, 265 patients of malaria, 1,96,580 patients of skin disease, 3855 of head stroke, 76413 patients of eye infections and 298,814 patients of other diseases have been treated in all flood affected districts, so far.

Source of data in Sindh: Meetings with District Coordination Officers: Sukkur, Khairpur, Shikarpur and Kashmor, NGOs and affected communities

# Food

## Impact

Equally disturbing was the non-availability of fodder for the animals. Livestock has been a major asset base for the flood victims. Lack of water, vegetation and pasture lands have badly affected the health of animals. There are not any veterinary services available in the camps as a result livestock is dying.

## Coping Mechanism

There is a negative coping mechanism that has been adapted. People are now planning to sell their livestock in the market. Farmers have started selling their sheep and goats at half the price of normal rates. This has also dropped the prices of the livestock in the market. Due to fodder non-availability they have started cutting trees in the areas where they are residing in the camps.



## ER Interventions

Women cooking food for their families in Khairpur District, Sindh

Financial support should be given so that people are able to buy fodder from other areas.

## Livelihood

### Impact

Agricultural land may not be feasible for growing crops until water has completely receded and sludge removed to restore land for agriculture. All tube wells have been completed or partially damaged and even if repaired, can not operate until electricity supply network has been fully rehabilitated in the affected areas particularly in main crop land. The ground water table has risen and in most areas, it has damaged crop land. Until the removal of dead animal bodies and stagnant water within one to two months, the probability of winter/rabbi crops on time would be critically affected.

As 80 to 90 % of affected people termed as 'haris' are badly affected. They would remain in camps for next 2 to 3 months; especially those working on others people's lands are quite reluctant to go back since they fear that their landlords would want a share and they would not also receive support for resettlement and food ration.

The direct effect on production assets be it agriculture or industry, have lead to loss of livelihoods. Lack of livelihoods combined with migration of skilled labor and inflation have had a negative impact

on the region's economic growth. Loss of resources has led to high costs of goods and services. Traditionally, women earned some income by making clothes locally termed as “gajj”, rally and mazri products. These nonfarm livelihoods of women have been drowned with the floods. The raw material that was stored in their houses has washed away completely. They have lost the orders they got from the middlemen. Although they are hopeful that the middlemen will bear the whole loss. The loss of livelihoods has also led to reduction in purchasing power of the people.

### Coping Mechanism

The communities have been coping with the current situation on their own. Situation is comparatively better than rest of the provinces in the country. People did get ample time to take away their essential goods and savings (money and jewelry). However, as mentioned by one of the key informants in Sukkhur that if the situation continues they would start migrating to areas where labor is available.

Male members have been trying to grab other income support activities like working as laborers in construction or industries, women have started using their handicrafts and embroidery skills with available tools they managed to save.

### Early Recovery Interventions

Financial support for re-establishing income generation initiatives like owning personal shops and home businesses like handicraft should also be triggered to facilitate an increase in household income.

It is required to organize skill enhancement training for the skilled women in the camps.



Most of the drivers, masons, barberers and labors have lost their livelihoods due to the recent floods in Sindh. They have opted fishing on the Guddu Barrage, Kashmore District



Sakeel Din Bhumro driving his bicycle locally known as “chingchi” in Khairpur District. He says most of the people have lost their livelihoods because the flood has damaged their chingchis





Hand embroidered shirts locally known as "Gajj" and "Ralli" bed sheets are made by most of the women in Shikarpur District, Sindh.

The products that are made during the trainings can also be given to them so that when they go back to their villages they can start selling their handmade products. Also, the raw material such as needles, sewing machines, fabric should be provided to them during the training. This will not only help them to start their livelihood but will also give them a sense of pride.

There is also a need to provide legal support and establish guidelines in reforming existing land rights. It would be very helpful if financial and legal support is provided for kachcha inhabitants to get a piece of land in stable areas for living and starting their own income support schemes to avoid future devastation.

## Governance

### Impact

Women, particularly pregnant women and breast feeding mothers, face some of the gravest threats in Sindh. They have less access to relief goods, as relief efforts by the government and aid organizations often do not meet their specific needs. They are currently at risk because of lack of medical services and supplies. They are suffering from under- and mal-nutrition, anemia, poor hygiene and sanitation, and greater vulnerability to diseases.

It affects many aspects of day-to-day life,” added father of eight Sajidin Bh-umro. “Many of us dig random holes for our toilet needs. I am hoping the situation will get better as time goes on.”

Migration to developed urban areas contributes to the overcrowding in the districts like Sukkur and Khairpur and Karachi. Public schools are being substituted as camps because the tents are in very short supply. The toilet facilities are totally clogged and furniture has fallen into disrepair. The flood affectees have started using the school furniture as firewood. Many children were found sick, ranging from severe malnourishment, diarrhea, eye infections and skin problems.

Currently detailed assessments have not been carried out by the government (District government), PDMA and NGOs. This is mainly because water has not receded in Sindh.

Some families are scattered and living apart in different districts, camps or other places. Due to non availability of communication means like phones, transports and most important money, they are unable to trace each other. Government authorities like DDMA/DCOs in some of the districts have not been managing proper record of people or segregated families living in camps or other places like living with relatives in other cities. Lack of trained NGOs and absence of local government has aggravated the situation in affected areas and adjacent cities like Sukkur, Shikarpur, Khairpur etc. Due to heavy influx of IDPs, existence of a large numbers of camps either registered or scattered alongside main roads and open areas the government needs coordination support. DDMA and DCO staff are not equipped



According to Shazia bibi “we have evacuated livestock before we evacuated our own children”.



and trained in handling current crisis while NGOs are mainly involved in development and social work lacking crisis management capabilities.

A large segment of affected people have no legal documentation of land occupied particularly in Kachcha areas. Resettlement would be big task without any demarcation of land in affected areas. Haris have no land rights and they usually work under landlord's, therefore have the constant fear of losing their food support due to loss of land and crops.

## Coping Mechanism

People are using their own hand made beds locally known as “charpai” to avoid the heat. Women were also found to sit under the mini trucks owned by their husbands. Handmade fans are used because there is no electricity.

The affectees have also started living with the urban poor and have ended up living in marginal lands in cities. This has put grave stress and aggravated the risks associated with migration. They have managed to bring all their belongings such as livestock, money, NIC cards and wheat silos along with them to bear with the current situation.

Pregnant women are using local dais (delivery experts) for the immediate medical support. According to them they cannot go to the hospitals since they fear new places. Also, they have not received any specific help from any organization working in the camps. Although, they added that they did get medicines for other ailments such as fever, eye infections from them but they are not useful at all.



Many rural women in Sindh feed their families by working during sowing and harvesting season.

There is presence of continued transitional movements across districts or camps to search and unite with other family members. Existing NGOs and some charity organization like Sylani Welfare Trust, Edhi Foundation are trying their best to provide relief support in the form of food provision and medical assistance to the affected population in camps. Some NGOs are partnering with International NGOs, Government and UN agencies facilitating direct implementation of relief work owing to their local links and knowledge of local environment, language and cultural norms.



## Early Recovery Interventions

There is a need to immediately register with DCO/DDMA camp management for receiving immediate facilities like WASH, Rations/foods and other support or need to move in proper camp locations either new or already established by the government. The communities should be prepared to move to proper locations or their native locations in case water recedes in affected areas. The government as a means of encouragement should also provide water and fodders for their livestock to make their return slightly easier. There is a need to acquire NADRA support to minimize transitional movement and reunite families at one place for better recovery support and return to their villages.

There is an urgent need to rehabilitate BHUs and dispensaries in the area. Mobile vans can be sent to provide immediate medical facilities to the pregnant women. It was also found during the assessment that there were LHVs in the camps as well. Therefore, they can be employed immediately for this purpose. Life saving medicines also vaccinations for snake bites should be provided. There is a need for training of DCO/DDMA staff as well as local NGOs in crisis management. Financial and technical provision of recruiting new and professional staff in DDMA/DCO would also need to take place. Provision of equipment mainly IT and GIS mapping tools in setting up information and database management in DDMA/DCO with necessary training about logistics management in crisis situation.

## Community Basic Infrastructure

Massive damage to infrastructure like buildings, roads, bridges, railway track, irrigation system,



Most of the people in Sindh are using their hand woven “charpais” to protect them from scorching heat



Broken boundary walls of the houses in Khairpur District, Sindh

small dams and power installations, foot bridges, schools and BHUs has taken place. The cultivated area has been wiped out completely damaging the major crops of the province such as Wheat, Banana, Jawar, Cotton and Sugarcane.

## Coping Mechanism

People are in dire need of immediate relief items such as food, water, shelter and NFIs. When asked during the survey, they said they are not planning to move back to their respective villages at the moment and that they will be seen for the next 3-6 months in the camps. The primary reasons for this were loss of livelihoods and infrastructure damages in their villages. They are trying to help the district government and the local NGOs which are building hand pumps besides camps. They also proposed to involve them as wage earners for doing such kind of interventions.

## Early Recovery Interventions

Cash for Work remained the top most priority by the affected people and the organizations consulted for the assessment. They proposed to clean the area, build hand pumps and drains if they are paid as daily wagers.



Mohammad Amin a police employee says” I lost my NIC, local certificate, school certificate, employment order and other documents at the time of evacuation during the flood”.





On self help basis, men in Shikarpur District are trying to bore holes for hand pumps



People evacuating from a village in Khairpur District, Sindh



## **Social Cohesion**

### **Impact**

Land disputes are arising due to floods as water washed away the boundary demarcation lines. Damaged infrastructure is major reason for disputes and it is aggravating the situation more.

### **Coping Mechanism**

Jirga has been involved in resolution of such problems.

### **Early Recovery Interventions**

The community needs trainings for clear understanding of such disputes and its resolution.

## **Environment**

### **Impact**

The sanitation crisis and malfunctioning of sewerage system is not confined to one district - it is a province wide problem. In all of the districts surveyed during the Early Recovery Assessment the absence of a sewage system has had major environmental effects. As a result, illnesses caused by poor sanitation are high, especially amongst children. Poor sanitation has also lead to stagnant water in the camps.

People have either returned or are in the process of going back to affected villages; however they

have not been educated by the authorities about the environmental and health problems.

### **Coping Mechanism**

Few transitional latrines were seen in some camps established by international and local organizations, however most of them were utilizing toilets in the schools which were completely clogged. In the camps they were using conventional ways i.e. defecation in open pits.

For potable water, either they would go to the nearest hand pump available in the area or they would wait for the water tankers which came in twice a day. They stored water in the utensils they brought along while evacuating from the area.

### **Early Recovery Intervention**

There is a need to supply tools required to clear lands from sludge/mud like excavators, bulldozers and tractors etc. Repairing and cleaning of water resources like hand pumps, tube wells, water tanks from contamination is also the need of the day. There is a need to immediately conduct a detailed Environment Assessment Studies of affected areas to properly cater environmental damages being done due to super flood in view to restore living environment for people and safe resources like water, lands from contamination and recovery of ecosystem. Provision of setting up waste management units or proper dumping facilities with equipment and training for municipal staff for safe disposal of liquid and solid waste would also need to be set up on an immediate basis.

It is recommended to liaison with the community based organizations to promote health and hygiene in the area. Also, with the collaboration of local organizations such as Development Institution Network (DIN), Al Noor Development Organization and IDEA it is required to clean the area by removing garbage immediately.



# Gilgit – Baltistan



On self  
help basis,  
people  
in Gilgit  
carrying  
stones to  
make a  
retaining  
wall





## Background

Gilgit –Baltistan (GB) region was under solemn disruption of the recent floods (a hydro-metrological hazard) i.e. Flash floods, cloud burst, land sliding, river deluge and rocks fall, etc. due to the western depression clouds systems and the monsoon system struck the GB at the same time and the entire GB was gravely affected by flooded waters in almost all the local river systems, streams and nullahs. Owing to remoteness and road blockages, some villages could not be accessed. The impacts of the recent floods on the lives, livelihoods and fragile eco-system of the GB was stern as the prone and poor communities of the region were unable to response effectively because of the un-expected massive disruptive event in the recent past. The disruption was un-measurable and uncountable. According to the GB Department of Home / GBDMA, more than 87,000 people effected, 195 villages, 2820 house hold effected, 72000 kanals of crop land got damaged, 947 km road, 182 bridges, 100112 trees, 4669 cattle heads, 504 irrigation channels were directly affected. Around 191 people died either due to collapsed buildings (houses etc), flash floods or diseases. (Source Rasheed Ali Dy. Director General GBDMA, 2010).

## Food

Some areas in the region are already food deficit and most of the food items are brought from other cities of the country. There are serious issues of food security as the region is often cut off from rest of the country, halting food and NFI supplies. Land holding per household is approximately 10-15 kanals while each family owns 7-8 livestock and around hundreds of fruit and forest trees of apricot, apple, walnut, cherry etc. The major foods which are produces locally are wheat, vegetables and barley. The local communities are in the practice of stockpiling food for winters and otherwise, however this particular practice is being abandoned. More or less, 99% of the population practices subsistence agriculture and livestock rearing.

## Impact

Due to flash floods and landslides, the standing crops of wheat, potato, vegetables and barley were seriously damaged. The villages which were not directly hit by the floods and landslides have lost their standing crops and fruits due to heavy rain followed by pest infestation. The affected communities are facing extreme shortage of food supplies after the floods, mostly because the Karakorum Highway (KKH) has closed due to heavy landsliding and debris flow. However local government and organizations like Pakistan Red Crescent Society (PRCS) are providing food to the affected people. The community needs flour, cooking oil, pulses, clean drinking water and other staple food items. In addition to the standing crops, seasonal fruits and vegetables of have either been destroyed or damaged due to the recent floods. Most of the affected people have either lost their agricultural tools and implements or have them damaged.

## Coping Mechanism

The local communities were the first to respond in rescue operations in the affected areas. However, local government and other search & rescue organizations reached the sites to help evacuate the people and provide them with the necessities. Some effected families are borrowing food from their relatives or staying temporarily with them, which is an additional burden on the host families.

## Early Recovery Interventions

- Food for work initiatives specially in areas where there is extreme food shortage due to inaccessibility.
- Repairing of damaged potable water supply schemes and provision of emergency clean drinking water supply equipment e.g. solar water filters

## Livelihood

All 100 % of population is directly or indirectly associated with agriculture. The main source of livelihood in the region is agriculture. Ninety percent of the population is dependent on farming. They grow crops like wheat, barley and potato. The land holding size is around 10-15 Kanal, however the land size has been reduced over the years due to fragmentation. Therefore, now they have started adopting alternate professions and the most common being observed are labor on daily wages, masonry, porters and guides etc. Women are also involved in agricultural activities. Livelihood

generation is in the form of sowing of seeds, watering, weeding, cutting of crops, cattle raising and fodder bearers. However, they are not being paid and recognized as income generating sources. Women also do not have any role in the decision making even related to their household chores. Local people, who were earning their living from hotel business, were also badly affected.

## **Impact**

During the floods all of the crops have been damaged. The rain also affected the fruit trees and vegetable gardens. The fruit trade has also gone down because of the floods, as they may not be able to continue the practice this year. The floods also damaged social forestry and non-timber forest products. Livestock rearing is another major source of livelihood for many of the affected people. Normally the use to cull and sell for the animals and earn income but the recent floods have either killed or drowned their domestic stock, leaving the farmers empty handed.

## **Coping Mechanism**

So far the communities have been coping on their own but if the situation remains the same, it is expected that they will start migrating to areas where labor is available.

## **Early Recovery Interventions**

- Provide non-farm livelihoods (trainings, grants for enterprise development etc) support to the communities
- Provision of livestock for the most vulnerable communities
- Cash for work initiatives
- Skill development initiatives for women that would lead to income generation
- Writing-off of the loans, services charges or increasing the loan recovery periods
- Introducing small and medium scale economic incentives for female headed households e.g. poultry, kitchen gardening, and vocational schooling activities
- Pasture development and livestock breed improvement interventions
- Supply of improved agriculture seeds and fertilizers

## **Governance**

The rescue and relief activities were carried out by local administration mostly. In Gilgit district the rescue and relief activities began immediately. This maybe attributed to the fact that there is a functioning Gilgit Baltistan disaster management authority which has been proactively dealing with disasters particularly the most recent one which is the Attabad disaster. The local communities were first to respond in all of the areas hit by the floods. In many cases the link roads were blocked, severing access for many days to come.

## **Impact**

The floods came suddenly without an early warning and there was hardly any time for communities to evacuate timely with their essential credentials. Most of them had to be evacuated in an emergency. However people living in district headquarters had time enough to carry some necessary items before they left. The district disaster management authority was unable to provide support in all effected area's because of the continued heavy rain fall and floods in streams and rivers, that blocked almost all the key road networks making search and rescue operation difficult for emergency handling agencies. The district governments are over stretched due to work and resources. Damage assessment is being done by revenue departments in their respective districts and based on the findings; government will try to compensate the flood losses.

The process of compensation is another issue because it depends on the provision of budget by Government of Gilgit-Baltistan, and allocation of funds for rehabilitation by the Federal Government. The villagers in the most of the areas had no DRR orientation, equipment and capacity to deal with disasters. Furthermore a few civil society organizations are working in particular in DRR and they have been very supportive to the district authorities.

The collaboration between government authorities and CSOs has been an important aspect of the response and relief phase, and it could be further strengthened through recovery and rehabilitation. Community based organizations, conservation committees and village counsels have also been very active throughout this time. Pakistan army has also been involved in relief and response in the region, mostly providing logistics support to the district government authorities in all of the effected districts.

## **Coping Mechanism**

The communities have been engaged in helping each other from the meager resources they had in their possession.

## **Early Recovery Interventions**

- Strengthening of existing institutions and formation of volunteer groups
- Capacity building of government line departments and remote communities in disaster management
- Strengthening of district government authorities through provision of necessary equipment.

## **Community Basic Infrastructure**

Community based infrastructure comprises mainly of link roads, water channels (cools), unpaved paths, mule tracks, community or counsil centers, mosques, jamat khanas, khankas, small brideges and culverts, community schools and small cottage industries such as rug making centers.



## Impact

The public and private infrastructure and services in the districts have greatly suffered because of torrential rains causing flashfloods; causing massive losses of properties during the first week of August 2010. The floods damaged 18 MW hydel-power station of Naltar and the 4 MW hydel power station of Jaglote Goore. Electricity supply to Gilgit city and surrounding areas was totally cut off for about three weeks. In Jaglote Goore, heads, supply channel and pipes were completely damaged. More than a 100 houses, two small bridges and about 5 Km of road was destroyed. Due to the danger of downstream flooding, in case of breach of the Attaabad Lake, people from these villages were already displaced from their settlements into IDP camps. However, the recent floods and landslides lead to blockage of the KKH, further aggravating the situation. Most of the main and link roads within districts and to other districts were damaged. Flooded streams and the river eroded the river banks and disrupted roads, a suspension bridges, agricultural land and plantations. The people reported total or partial damage of their houses, damage of crops, markets, community centers and likewise. The flood also damaged the buildings of government schools, dispensaries and health units.

The district government is engaged in assessing the details of losses. Community based infrastructure like irrigation channels, roads, water schemes, bridges and houses were severely damaged. The Ghizer road remained blocked for almost 3 weeks, ceasing supply of all types of goods and commodities to the valley, and has now opened for small traffic only. According to recent survey by the Ismailia Local Council Damas, there are 50 houses completely damaged / washed away by these floods and more than 200 houses partly damaged. The maximum land eroded by river is 1-10 kanals per household in Punial tehsil. Electricity transmission grid and system in the affected areas is also damaged. High voltage transmission lines were seen shattered at various locations particularly between Hatoon and Golodas. The Singal Hydel Power Station was also hit by the nullah floods and severely damaged and is not operational causing high load shading in the entire tehsil.

The transmission towers of some cellular companies particularly Telenor have also failed in some locations like Gahkuch, Ghizer.

## Coping Mechanism

The communities along with the government started building retention walls on their own. With a lull in the situation, the communities started clearing the debris on their own or with the support of adjacent village communities.

## Early Recovery Interventions

- Support construction / repairing of damaged CBI (schools, water channels, link roads, Khankas, mosques etc)
- Support debris removal and road clearing
- Support structural mitigation initiatives in the communities (retention walls, retrofitting of damaged buildings etc)
- Construction of Emergency Shelters in communities

## **Social Cohesion**

The mountain communities of the GB region have very strong social ties and they are very supportive of each other in rough times. The communities also support the district administration and local authorities voluntarily. However, after cleaning the debris and other materials some disputes on land demarcation may arise. So far there have been no issues at the district government or community level.

## **Impact**

Several water and land related disputes were told to have appeared in the area after flood, which were settled by the village elders amicably. Children and pregnant women were reported having suffered the most during the disaster.

## **Coping Mechanism**

If disputes occur at all, the religious leaders will manage them by involving the elders of the disputed families. In rare circumstances, cases will be dealt by the Police and the Court of Law. In almost all of the villages, decisions are made by elder males. Females are not usually involved in decision making, even in issues such as casting of votes. The males work as daily wage laborer, porters, guides shopkeepers etc to make an earning for their families, whereas, most of the women folk take care of children, look after livestock and spend time in agricultural activities. Another expected dispute may rise on the ownership of the dead & fallen trees. The communities are gathering the dead and fallen trees from the local forests. Village elders will decide on the use of the collected wood later on.

## **Early Recovery Intervention**

There is a need to carry out the Identification of vulnerable groups in terms of disabilities, age, social and religious groups and cater their needs in the ER process and to avoid them being marginalized in the process.

## **Environment**

Deforestation is the major environmental problem of the area. Illicit cutting of forests from slopes have exacerbated the impact of accelerated soil erosion, damaging public and private infrastructure, sources of livelihoods, shelters, roads and bridges in the entire area.

## **Impact**

In the post disaster area, scarcity of drinking water, solid wastes, slope activation, denudation, and sewerage are among major issues. Recent floods have increased the magnitude of these issues manifolds, particularly increasing the occurrence of water born diseases amongst children in the IDP camps and villages. Medicines are still not adequately available to many of the affected population. Lack of solid waste management plans and safe disposal sites for waste management is further aggravating the situation in camps. Lack of drainage, resulting into stagnant waters in some parts may lead to breeding and spread of malarial mosquitoes causing an epidemic in the coming days.



Shortage of fuel is another issue which is increasing pressure on already scanty forest resources. Some cases of diarrhea, gastrointestinal abnormalities, cough and skin diseases have also been reported. The debris of the houses and cattle sheds is also lying in open and is a cause of pollution. Local government or any organizations have not yet taken any steps to manage these issues. The local administration with Red Crescent has arranged tents for some of the villages, but no mechanism has yet been devised to manage solid wastes in the camps. The waste including was scattered all around the camps, which may become a major cause of diseases in the camps, especially among children. However, deforestation, cutting of fruit trees and wild trees mainly for timber, fuel and firewood has accelerated soil erosion on denuded slopes. In some areas, retention walls have also been damaged, increasing the extent of riverbank erosion and landsides in the villages.

## **Coping Mechanism**

The people were using cow dung, kerosene oil and firewood extracted from the local forests and plantations (fruit trees, popular, and Salix) and except for kerosene oil, is still using the same. The villages are dumped with rubble, silt, mud and dead carcasses of animals, which the communities are somehow trying to manage themselves. The communities themselves buried the carcasses of animals outside the village, but a lot of debris is still lying in the villages.

## **Early Recovery Interventions**

Alternate sources of energy needed to be provided to protect the existing forest stock, coupled with rigorous firewood plantations on denuded slopes is recommended to improve forest cover, water quality and watersheds. Village youth, volunteers and boy scouts can be mobilized to safely dispose off the hazardous wastes, and for public education and awareness, health & hygiene sessions, medical camps and cleanliness campaigns can be organized in IDP camps and surrounding villages.

- Support to social forestry and deforestation initiatives
- Slope stabilization and bio-engineering initiatives
- Introduction of concepts of land use planning and zonation
- Education and awareness raising campaigns regarding environment protection, solid waste management and climate risk mitigation etc
- Provide technical trainings for capacity building of the communities in natural resource management as part of DRM

# **Pakistan Administered Kashmir (PAK)**



The sand being taken of the house at Shah Sultan Mahalla  
Muzaffabad on self help basis



## Background

Pakistan Administered Kashmir lies between longitude 730 – 750 and latitude 330 – 360 and comprises an area of 5134 square miles (13,297 square kilometres). The topography of the area is mainly hilly and mountainous with valleys and stretches of plains. Main rivers are Jehlum, Neelum and Poonch. PAK is divided into three divisions (Muzaffarabad, Mirpur & Poonch) and ten administrative districts with Muzaffarabad as the capital of the state. The Muzaffarabad Division comprises of Muzaffarabad and Neelum, Rawalakot Division comprises of Bagh, Poonch & Sudhnuti districts whereas districts of Mirpur Division are Mirpur, Kotli & Bhimber. These ten districts are further divided into 32 subdivisions. The people's participation in the political and socio economic development is ensured through the elected institutions of the PAK Legislative Assembly comprising 41 directly and 8 indirectly elected members and the PAK Council with six elected members.

According to a letter issued by PAK officials, most affected districts as a

result of recent floods were identified as Muzaffarabad, Hattian and Neelum. The worst affected in terms of damages incurred is district Neelum. Neelum is the largest district of PAK, covering 27% of the PAK area, with scattered population, less facilities, situated along the Line of Control and mostly dependent on import of daily use items, including food from rest of the districts. The area is mainly dependent on Muzaffarabad Kail road to connect with rest of the world. It has various natural and man made disasters, and has specially been affected by the recent floods.

## Summary of Damages and Losses

Following is a consolidated report regarding losses of human and property in PAK from 28 July to 24 August 2010.

Summary of Losses in PAK	
District	10
Persons Dead	71
Persons Injured	87
Number of Houses fully damaged	1496
No of houses partially damaged	5504
Number of Shops fully damaged	517
Number of shops partially damaged	491
Cattle head perished	288

## Food

Most of the area of district Neelum remains inaccessible from December to April in the year due to heavy snow fall and people have to collect and store necessary items for winter from August to November and without the road approach the food security is also a major challenge. Recent floods only added further to the dilemma of the affected population. The area was cut off due to landslides which were triggered post floods, resulting in severe food shortage in the area.

During the first 10 days after flood till re- opening of the road all food items in the local market were purchased by the people. People remained struggling for food items throughout the period. Agriculture Department reported estimated damage of 4322 MT maize, 4.8 MT rice, 237 MT fruits and 928 MT to standing crops in District Neelum.

According to State Disaster Management Authority (SDMA) in district Neelum during the recent rains 2,265 families consisting of 15,175 people, 8.87 % of total population, have been directly affected due to death or injury of family member, totally or partially loss of houses and shops, loss of livestock and loss of water flour Mills. No notable food shortages were reported in Muzaffarabad district or Hattian which were also affected by floods. However, the worst affected district of Neelum due to road inaccessibility issue faced acute food shortage in the beginning. The families were in need of immediate food assistance along with other basic needs for their recovery.

### Crops Damage in District Neelum, most affected in PAK

Crop Type	Baseline (Tons)	Damage (Tons)
	Standing Crop	Standing Crop
Maize (Grain)	12,350	4,322
Maize (Fodder)	18,525	6,483
Rice	14.4	4.8
Fruits	7,856	237
Vegetables	1,856	928

Source: District Government Authorities

Data collected for district Muzaffarabad by SDMA reveals that during the recent rains 1,580 families consisting of 10,556 people, 1.72 % of total population, have been directly affected due to death or jury of family member, totally or partially loss of houses and shops, loss of livestock and loss of Grats (water flour Mill).

As reported by AJK Agriculture Department 14005 MT of maize 150 ton rice 871 MT fruits 564 ton Vegetable of standing crop got damaged during flood.

### Crops Damage in District Muzaffarabad

Crop Type	Baseline (Tons)	Damage (Tons)
	Standing Crop	Standing Crop
Maize (Grain)	56,690	14,005
Maize (Fodder)	85,035	21,007
Rice	1,214	150
Fruits	28,067	841
Vegetables	1,204	564

Source: District Government Authorities

AJK Food Department has 14 food depots and 100 registered food dealers throughout the district neelum. According to government authorities, all available flour 1,345 MT was distributed on subsidized rates throughout the district. However, consultation with NGOs and communities revealed of price hike as a result of food shortage in the district. After the opening of the road AJK food department has started food transportation for storage for the winter. AJK food department has also started distribution of ramazan food package in the area. However, long queues of people waiting to receive the supplies have been reported.

Other notable NGOs working in the district are Pakistan Red Crescent Society, Children First, Islamic relief and the World Food Programme (WFP). WFP has planned to distribute food for next three months to all population in the district. WFP has started distribution in most remote areas of the district as the road access has improved.

### Coping Mechanism

As highlighted in a consultation with NGOs and communities working in district Neelum, initially the



most affected families were taken care of by their relatives and neighbors during the first week. In the context of the holy month of Ramazan, the spirit of sharing and generosity of host families was visible. Direct consultations with communities highlighted that people borrowed food items from neighbors in some cases, purchased available food items from the market, and started alternate diet in case of non-availability, for example, green tea instead of milk tea and locally available vegetable.

Accessibility was also partially addressed by the locals as they constructed small foot bridges and foot paths in some key areas. Transportation between two landslides was also restored by use of donkeys and other arrangements to transport food items.

## Early Recovery Interventions

According to result of the consultations, food component is already taken care of by NGOs in the region, AJK Food Department and WFP. Given that the road approach has been restored, and that SDMA, PRCS and WFP are actively engaged in food distribution, there seems to be no urgency for food. According to Deputy Commissioner Neelum Mr. Shahid Ayub, the annual requirement of food for the district is 17,640 tonnes whereas 300 tons is available in the stock.

As the area of AJK is hilly and people are cultivating crops on man-made terraces developed by the construction of protection wall or raisers during the rains most of the terraces have slide downed and crops have been severely damaged. In district Neelum, early recovery interventions can be planned through supply of seeds for kitchen gardening to enable community to meet their vegetable requirements for the upcoming winters. Support to poultry farming at household level can also help local market with food supplies. Availability of maize flour by rehabilitation of watermills can also support meeting community's need of food at local level reducing dependency on wheat flour and rice which is brought in from other areas to Neelum Valley.



Landslides, triggered by floods, have blocked access to major roads and hampering relief aid transportation in district Neelum.



## Livelihood

In district Muzaffarabad, the flood water created havoc in the low lying areas adjacent to the rivers of Neelum and Jehlum. The flood water submerged many walk ways and Neelum Bridge as well. The influx of water in two rivers was too huge. Neelum valley suffered most in terms of impact on livelihoods. On one hand, there is price hike while on the other hand due to economic inactivity purchasing power is on decline which may result in malnutrition.

### District/ Agency Level Loss of Agriculture Land & Infrastructure - Muzaffarabad

Tehsil	Baseline (acres)	Area Inundated (acres)	Area Irreversibly Lost (acres)	% Forest area destroyed	No. of Storage Godowns Damaged	No. of Agriculture Ext. Office Completely Destroyed	No. of Agriculture Ext. Office Partially Destroyed
Muzaffarabad	48333	7733	78		0	0	0
Nasirabad	21020	3363	35		0	0	0

Source: P&D Department Azad Govt. of the State of J&K Muzaffarabad

### District/ Agency Level Loss of Agriculture Land & Infrastructure – Hattian

Thesil	Baseline (acres)	Area Inundated (acres)	Area Irreversibly Lost (acres)	% Forest area destroyed	No. of Storage Godowns Damaged	No. of Agriculture Ext. Office Completely Destroyed	No. of Agriculture Ext. Office Partially Destroyed
Chikar	5841	1309	66		0	0	0
Hattian Bala	20277	4095	55		0	0	0
Leepa	2718	620	19		0	0	0

Source: P&D Department Azad Govt. of the State of J&K Muzaffarabad

Name of District	Building/ Equipment/ Poultry Farm/ Livestock farm	Estimated Value (Rs in million)	Buildings, Medicine, Utensils & Feed etc		Mortality of Animals		
			Poultry Farm	Livestock Farm	No.of Buff/Cow	No.of Sheep/Goat	No.of Poultry birds
Hattian			Not yet reported	Not yet reported	10	25	"

Apart from agricultural damages in adjacent areas of the both rivers, loss of some cattle head was also reported in the statistics given by the P and D department.

Name of District	Building/ Equipment/ Poultry Farm/ Livestock farm	Estimated Value (Rs in million)	Buildings, Medicine, Utensils & Feed etc.		Mortality of Animals		
			Poultry Farm	Livestock Farm	No.of Buff/Cow	No.of Sheep/Goat	No.of Poultry birds
M'abad	Boundary wall of Poultry Complex Manik Pian	2.000	Not yet reported	Not yet reported	15	30	Not yet reported

## Coping Mechanism

One key lesson from the Pakistan earthquake of 2005 that the communities and government in PAK seem to reiterate is the trust in people's ability to recover themselves. Livelihoods recovery through community mobilization, and allowing the communities to prioritize their needs seemed to work well in the earthquake and therefore the preferred modality for floods early recovery intervention as well.

In this village there are 49 families and 480 people. The major castes are: Bhoan, Mirs and Butts. Ninety five percent of the working class work as drivers, daily wagers, labourers, hawkers in bus-stand. Five percent of the working class is in jobs of army, municipality and teaching.

One of the community members said that they migrated from Neelam and are living in the area since 1969. Initially they inhabited 5-6 houses and later on the number increased to 49 households. They have also witnessed the flood of 1992. Prior to the earthquake of 2005 the area was quite fertile, according to him but afterwards problems increased.

He further mentioned that as people faced multiple problems in terms of accessing relief and getting compensation of their houses due to loss of their legal documents including National Identity Cards and property documents. In recent floods of 2010, during evacuation, people of the area were very vigilant about their documents while leaving their homes and taking shelter on safer places. As a coping mechanism to avoid such destruction in future they have decided to shift the complete settlement to a new place. This place is no more safer as river may cause destruction again and is unlivable.

In the same location, a separate discussion was also held with the women who identified shelter as the key priority. The women seem to also have learnt from the experiences of the earthquake and while they did cry out on the constant barrage of one natural disaster to another, they did mention their trust in the humanitarian workers 'who always deliver on their promises', said Bibi Haneefa, a local resident. She also mentioned that women are keen to take skills-based training so that they can earn a living from home. 'Stepping out of the house is not an option...it is not possible for us', she said.

## Early Recovery Interventions

District Muzaffarabad: In Baila Makri, immediate need is shelter as almost 80% of their houses are not in livable condition. Male members, generally associated with daily wages laboring are hesitating to leave for work as their women and children are not safe in open sky. Overall 28 houses are not livable and 21 houses need retrofitting and other minor repairs. Women should be provided with some vocational training as they really want to share the burden of livelihood with male earning members

During a meeting with DC Hattian Mr. Shafique Ahmed Kiyani, he mentioned Leepa valley is the most affected area in the district and access was not possible as main link roads washed away during recent rains and hill torrents. In this district, people came to seek help from the District Commissioner but they were asked to use their existing resources to recover and rehabilitate themselves on self-reliance basis. Soon after the devastating rains of 28-29 July 2010, DC assigned revenue department and its local staff (Patwari) for a comprehensive damage and losses assessment by involving community notable persons and key informants. He learnt that most of the people were able to restore their losses on their own, with a vigour to move back to normalcy. District government is ready to help the community in restoring the communal losses while for personal losses they will have to rely on their own resources.

of their families. Women know embroidery and stitching work; if linkages could be developed with some entrepreneur in the nearby city of Muzaffarabad then they can share the economic burden of their families. A youth group of around 20-30 people is available in Baila Makri and is associated with daily wage laboring or driving small scale local transportation generally not owned by them. The youth is ready to receive some skilled training so that livelihood options could be multiple for the local population. As a nonfarm



Sand deposit in the prefabricated shelters in Bela Makri , Muzaffarabad  
livelihood options , local people can be provided with good fishing equipment as they are living on the bank of the river and can be linked with local market to sell their fish-catch on good price.

In District Neelum one of the key interventions required to restore livelihoods is to make markets accessible. The proposed interventions under landslide management and restoration of basic infrastructure and link roads in other sections is expected to address accessibility issues.

It is also reported that 93 watermills have been damaged or washed away by the flood water. Therefore an intervention for the restoration of these should be initiated. One watermill is a source of income for a family size of 6-8 persons and it also benefits surrounding population of 500-600 persons. The overall cost of rehabilitation of one watermill is around 1200USD.

The women have requested for the vegetables seeds as there is shortage of vegetables. Maize flour is used here which is also scarce.

## Governance

The devastation caused by the floods in Pakistan made it even clearer that the first responders at the district and state/provincial level need to be strengthened further in order to save lives and to effectively deliver on the ground. Disaster risk management is a subject which is better served at the community level and by strengthening the government at the first responder level. The ER needs assessment mission concluded that there was no second argument to the strengthening of the State Disaster Management Authority (SDMA) as this message reverberated right from the Additional Chief Secretary to the DCO Muzaffarabad to line departments in the field. A focused meeting was also held with Director General SDMA and possible areas of support under early recovery were discussed.

Ghulam Ali, a resident of Baila Makri, lost his house in recent floods. Ghulam is taking care of 5 orphan children of his brother, who lost his life in 2005 earthquake. Ghulam is a daily wage labourer in Muzaffarabad city. "I am worried that how I will rebuild my house. I am unable to go find work in city as my family is living in unsafe place."

In a consultation with DC Neelum and the Revenue Officer it was shared that almost 350 families have lost their houses in addition to important documents and national ID cards. Timely evacuation in upper Neelum valley could not be possible as there were no such early warnings by the concerned agencies. Flooding in Nullahs and streams, which actually caused the major damage, started unwarned triggered by the cloud outburst. Casualties and injuries were mainly because of the lack of early warning system and the people catching timber/wooden logs flowing in the streams. However, down the stream the people were warned time and evacuated timely.



SDMA was also recipient of UNDP/DFID support for its offices in Muzaffarabad, as part of earthquake 2005 response programme.

The loss of ID cards, other important documents was not reported at the state level. In addition any causes of conflicts due to floods were also not reported in all consultations across all levels.

## Coping Mechanism

The mission observed that post earthquake relief and rehabilitation activities in the area have developed a networking of district government, NGOs as well as other stake holders therefore response to current flooding was very much coordinated especially in the context of rescue and relief. This coordination would also be helpful in early recovery as well as rehabilitation activities aimed in the area. SDMA was holding regular meetings at the state level with all NGOs which was a useful platform of information exchange and building synergies in response activities.

While it was clear that the loss and damage was not just limited to human life and property, it also affected few government buildings especially in worst affected districts. However, all government officials, right from State level to the district level clarified to the mission that any damage was not big enough which the State government could not cope on its own. They would rather have early recovery interventions remain focus on restoration of community basic infrastructure, livelihood opportunities as well as environmental recovery. It was a remarkable demonstration of self-reliance which the mission also acknowledged to the Additional Chief Secretary in the last wrapup meeting.

## Early Recovery Interventions

Strengthening SDMA was the only early recovery intervention which was pointed out by everyone, including other non-government sources. They identified the need for search and rescue equipment, communication equipment and other IT support.

## Community Basic Infrastructure

District Neelum is linked with the district Muzaffarabad and other parts of PAK through 200 km Muzaffarabad Toabut road which is the only approach.. The road from Muzaffarabad to Authmaqum is being reconstructed. During the recent rains the road from Muzaffarabad to Authmaqum was blocked by huge landslides at nine places and a number of small landslides at many places whereas beyond Authmaqum three main bridges were washed away by flood resulting in the whole district being inaccessible. All other roads linking the other parts of the Neelum to the main road were also badly affected by floods at some places roads near nullahs have been completely washed away. Although the road has been re-opened temporarily by clearing slides through constructing by passes and temporarily bridges but is highly susceptible. A light shower is sufficient to reactivate the slides to block the road.

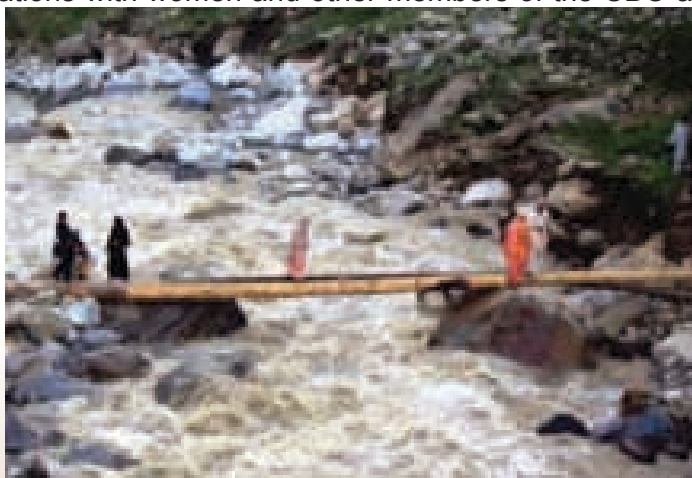
Recent torrential rains have caused flooding in streams, nullahs and river Neelum resulted heavy losses to private public properties along with 10 lives (District Govt. Neelum). All communities of the district especially settled along the river/ nullahs/ streams bank suffered huge damage especially communities near Nullah Shunther, Dawarian, Lawat Nagdar.

In a meeting with DC Neelum and Revenue Officer, it was discussed in greater detail how flooding and landslides have devastated Community Basic Infrastructure (CBI) in the area badly. Three bridges at Main Neelum roads have been destroyed whereas approach/ access of 2 other bridges were also damaged. Diversion of river course at Lawat perished 800 feet long road, similarly ½ km of road section at Shahkot washed away. Almost all link roads were badly affected by flooding and landslides therefore the district was not only cut off by Muzaffarabad but also people were stranded at various places within the districts.

Bridal paths, bailly bridges and foot bridges were badly damaged all over the district which has further aggravated the food crises, unemployment and lack of basic facilities. The only communication network is of PTCL landline which was ineffective during floods; although efforts have been made it has been restored at most of the places but landslides are a continuous threat to the only communication system of the area.

Following issues were highlighted in consultations with women and other members of the CBO at Lawat Paian and Attahi villages:

Other than the directly affected families all the district population is largely affected by the damage of CBI. Linked road damage has paralyzed the life of communities in terms of price hike of commodities and fuel, loss of livelihood and communication. Medical facilities available in the district were already insufficient before floods and they used to approach Muzaffarabd for medical treatment. Women at Athai Athmuqaam Jamila Lateef reported, until now a pregnant women had lost life during child birth



Community restored Foot Bridge at Nagdar



as there is no gynecologist in the district and main Neelum – Muzaffarabad road was blocked due to landslide. Pedestrian access (bridal paths, Foot Bridge, etc) to schools and health facilities are also badly damaged due to rains and landslides.

## Coping Mechanism

District government focused on immediate rehabilitation of main Neelum road and in a short time restored main bridges and accesses. At some places where the bridges or road sections cannot be restored alternate kachha roads/ diversions were developed.



Dist Govt started repair work. A retaining wall is being constructed after the flood

Similarly new approaches have been developed from the main land sliding areas. Pak Army has been a major partner of district government in all these activities. Road from Kundal Shahi to Kuttan village, 5 km in length, was totally destroyed by the flooding in Nullah Jaagran which has been a hurdle in approaching for relief activities. Focusing on it, the 2 km stretch was restored making the vehicular access possible in the area. Dolli and foot bridges over Nullahs have been built and bridal pathways at Khawja Seei, Kel Seri, Nullah Sorgan, Nullah Shounthar and Nullah Jaagran.

On self help basis, community has restored or made many new bridal pathways and foot bridges.

## Early Recovery Interventions

- Recent floods and land sliding has caused large scale damage to link roads which are important to be rehabilitated immediately for which huge resources will be required. However, to restore community's routine life bailly bridges, foot bridges, access to schools and health centers are to be restored on priority basis.
- Check dams, bio engineering protection techniques and protection/retaining walls along the Nullahs and streams are very important to reduce vulnerability of the settlement along such streams.
- Irrigation channels, shops and water mills are to be restored for bringing back employment opportunities for community. Water mills repairs will not only help restoring livelihood but also meeting the food requirement locally.
- Mini hydro power plants can help generating energy as well as revenue for the communities.
- In district Muzaffarabad, all Nullah have captured lot of debris which is important to be removed and check dams are to be built to avoid further threat of flooding in future.
- Although this may not be possible under early recovery initiatives but multilayered communication system should be introduced as many areas only have PTCL landlines or limited or no cell phone networks.

## Cost Estimates of Early Recovery Activities

Cost estimates for ER activities in District Neelum

S. No	Union council	Activity	Unit	Unit cost	Quantity	Cost in Mill Rs.
1	Kundal shahi	Community roads	Km	5000 m.day	16	2.4
2		Water channels	Km	2000 m.day	10	0.6
3		Foot paths	Km	1000 m.day	15	0.45
4		Field terracing	Cft	5 m.day%cft	150,000	2.25
5		Check dams/protection walls	Cft.	5 m.day%cft	170,000	2.55
<b>Sub Total</b>						<b>8.25</b>
6	Kel	Community roads	Km	5000 m.day	10	1.5
7		Water channels	Km	2000 m.day	10	0.6
8		Foot paths	Km	1000 m.day	20	0.6
9		Field terracing	Cft	5 m.day%cft	90,000	1.350
10		Check dams/protection walls	Cft.	5 m.day%cft	100,000	1.5
	<b>Sub Total</b>					<b>5.55</b>
	<b>TOTAL</b>					<b>13.8</b>

Cost estimates for ER activities in District Hattian Bala

S. No	Union council	Activity	Unit	Unit cost	Quantity	Cost in Mill Rs.
1	Banamula	Community roads	Km	5000 m.day	10	1.5
2		Water channels	Km	2000 m.day	15	0.9
3		Foot paths	Km	1000 m.day	12	0.36
4		Field terracing	Cft	5 m.day%cft	100000	1.5
5		Check dams/protection walls	Cft.	5 m.day%cft	100000	1.5
<b>Sub Total</b>						<b>5.76</b>
6	Chakhama	Community roads	Km	5000 m.day	13	1.95
7		Water channels	Km	2000 m.day	10	0.6
8		Foot paths	Km	1000 m.day	15	0.45
9		Field terracing	Cft	5 m.day%cft	80000	1.2
10		Check dams/protection walls	Cft.	5 m.day%cft	80000	1.2
	<b>Sub Total</b>					<b>5.4</b>
	<b>G. Total</b>					<b>11.16</b>

As pointed out by Deputy Commissioner Hattian, Chief Officer Local Govt. Hattian and President NGOs Network, 3 out of 4 bridges on Moji Nallah have been completely washed away by the flood in union council Banamula. Seven out of Ten bridges have been carried away by flood on Kazinag Nallah in union council Chakhama. People in these areas are facing severe problems of accessibility to market and transportation of food and necessary items to their houses.

As identified by the Chief Officer Local Govt. Hattian, restoration of the following foot bridges could be included in the early recovery programme:

1. Foot bridge Moji.
2. Foot bridge Doba sydian
3. Foot bridge Chumb Doba
- 4 Foot bridge Khatar Nar
5. Foot bridge Kona Batangi.

The cost estimate of the above foot bridges is in table -1.

Cost estimates of foot bridges in UC Banamula and Chakhama

S. No	Union Council	Name of Bridge	Span (ft)	Estimated Cost (Mill Rs)
1	Banamula	Moji	70	0.900
2	Doba Sydian	60	0.850	
3	Chakhama	Chumb Doba	65	0.900
4	Khatar Nar	60	0.850	
5	Kona Batangi	70	0.900	
		<b>Total</b>		<b>4.400</b>

Source: District Authorities

## Social Cohesion

In village Changan, local community with the help of NGO (Strengthening Participatory Organization SPO) strengthened a 30x6 feet long gabion wall against the stream of Changan which was always considered as a potential hazard to the major part of the village settlement. On 29th July stream was full of rain water and flash flood and continuously building pressure on the protection wall. According to Mr. Ghulam Hussain, president CO of the village” we were continuously watching the gabion wall we constructed and observed that the wall is fighting like a guard for two days and people got time to take out their belonging from vulnerable area. We were feeling pride and people who were



Civil works-retaining walls initiated by dist govt in collaboration with community in district Neelum.



Destroyed gabion wall at Chnagan Nullah but before destruction it has given the beneficiaries enough time to evacuate and save belongings.

against its construction admitted that they had a wrong perception before. Now we all think that such infrastructure if built properly can save our lives.

## Environment

After meeting with a wide range of stakeholders, Government Agencies (Director SDMA, Deputy Commissioner Muzaffarabad, Secretary Planning & Development, Secretary Local Government, Secretary Industries Additional Chief Secretary Development (ACS) AJK during the focus group discussions with the local & international NGOs, the following important environmental impacts of floods were identified and listed with priority.

Almost all the officials, NGOs, and community members at Muzaffarabad pointed that landslides are real topmost environmental problem. The landslides created real problem for communication system and caused damage to life and property. The impact of landslides on different aspects of human life is described

## Impact

The geology and soil of AJK is favorable for landslides. The heavy continuous rains for four days triggered enormous landslides in district Muzaffarabad. From Muzaffarabad to Kohala 43 new small & medium landslides occurred on 28th of July 2010 blocking the road at different points. The road was cleared after one with coordinated effort of NHA and C&W department AJK. Similarly many large landslides occurred on Muzaffarabad- Chakhoti road blocking the roads which were cleared again by the coordinated effort of FWO, NHA & C&W department AJK. Similarly the main road to Neelum valley could not be fully cleared even after almost one month. The debris is cleared but few hours again the road is closed by debris material of landslides at Goga Kus, and Deverian. It has been partially cleared up to Athmaqam after two weeks but is closed after every small shower. Beyond Athmaqam the upper Neelum valley is still closed. The relief operations were affected because of inaccessibility. Helicopter service was used to evacuate the tourists struck up the Neelum valley. Army helicopters are being used for transportation of food in the upper valley. Pakistan Army is helping in rehabilitation of road.

The bank erosion has caused the cutting of the main roads and the link roads. The main road from Muzaffarabad to Kohala had been cut at about nine sites and diversion has been excavated for traffic. The road remained closed for one day because of road cut by the river and landslides above the road. The main Muzaffarabad – Chakoti road has also been cut due high flood in Jhelum river. Even new retaining wall constructed by FWO has been cut and damaged at more than five places.



The road network of Neelum district A landslide initiated during the flood on Kohala road



Landslide triggered by river bank erosion on Kundal Shah road

has been extremely affected by the bank cutting of the Neelum and its tributaries streams. With the cutting of the road network by bank erosion and landslides normal life the communities and livelihood is affected badly. Even availability of food has become problem. In the upper part of the valley Pak Army is helping the district administration for the transport of the food.

### **Coping Mechanism**

The main roads are being cleared by NHA, C&W departments AJK and FWO. In case of Neelum road, jeeps are used to transport the passengers between two large landslides and in some cases mules and donkeys are being used to transport the luggage and food items between the blocked portions of the road. On Neelum road the passengers have to walk over the landslides because the stone are moving continuously. The communities used logs at critical points for crossing the cut places of the road. Alternate route is also being by four by four small vehicles for transportation of food material and passengers to Neelum road.

In case of links roads communities have carved paths to cross the landslides or walk over the



land slide area if landslides are active landslide in case where stones & rocks are still rolling on the landslides or have carved the paths through the landslides and people cross the landslides by walking. The roads have to be cleared by removal of debris through loaders or bulldozers for vehicular traffic.

### **Early Recovery Interventions**

A landslide assessment study in PAK needs to be conducted showing the extent of the landslides and their stabilization mechanism. There is a need for a landslide management project during the flood rehabilitation & reconstruction phase.



Road cut endangered house by river bank erosion

## PDMA/PaRRSA Update # 26 - 1400 Hours Summary of Losses / Damages : 23 August 2010

District	Total Popula- tion	Dead	Injured	Total Population Displaced	Population Inaccessi- ble	Villages Affected	HH Affect- ed/Approx	Infrastructure										PESCO				Livestock				
								Houses		Shops	Roads	Bridges	Culverts	Education Facilities	Health Facilities	G Build- ings	WSS	Trans Former	Pole	Grid Station	Cattle	Crops (Acres)	Others			
	Million					Affected		PD	CD																	
Tank	0.343	9	9	35000			21,270			1	7	3	1	3			19									
DI Khan	1.247	15		20468			56,373	846	2924		35	2					29			2					180252	
Lakki Marwat	0.708	11	26				4,013	107	57	5	2		1	8	1		5							31		
Bannu	0.938	8	9	2700		60	7,782	30			1	6		35		2	4	10	29				135	89232		
Mansehra	1.526	29	37	27706			3,267		3958		33	3	3	9	33		43									
Abbottabad	1.09	15	6	7518					1074			1				84	31								1500	
Haripur	0.895	29	21	20629			8,092	83	2947		1	3	1	37		51	51									
Baltagram	0.607	36	18	7301			1,488	1043	72	72	35		21		11	68	1	18					361			
Kohistan	0.478	85	10	32122	150000		66,333	488	1902	3			107	11		65							4300			
Peshawar	3.054	40	68	37373		97	33,867	15202	5339							14							120	92797		
Charsada	1.431	66	106	145810		85	71,819	13827	20,830		34	3		60		40										
Nowshera	1.226	167	10	350336		109	71,403	17892	50,048			4		134	11		61			1						
Mardan	2.074	8	40	11403		182	2,856	6016	1629				8			35						8	700			
Swabi	1.45	6	4	742			2,198	3						29		16								100		
Karak	0.63	19	52				7,276	7	83	1		1				29						6				
Kohat	0.821	35	36	50		48	5,531	10601	311		1					28						302	3750			
Hangu	0.459	12	13	581			6,549	100	83	1	2	1				9						26				
Swat	1.863	95	207	101220	350000		90,665	3	14460	161	2	21	3	69	13	41				1				34470		
Dir Lower	1.068	35	12	420			25,812	200	60		56	16		1		70										
Malekand	0.669	18	15	2436			6,441	738	348	224	20	7		17	48	63					2			35000		
Shangla	0.636	162	241	11403	60000		11,950	1869	1629		4	30		51	5	77					20					
Buner	0.792	19	35	3122			802	1308	446	15	15	3	6	8	3	23	25	104			227		3676			
Dir Upper	0.795	77	4	100000	100000		30,071	600	55		57	104	40	14	5	43		104			2720		25000			
Chitral	0.428	21	21	1155			9,881	353	165	17	13	39				44				1	180		150			
Province																		560	50					80,000		
Total	25,228	1017	1000	919495	660000	581	545739	70273	109391	283	282	23	629	139	153	908	596	305	5	8438		466627		80000		

\* 1100 Km of light and high transmission line in Province

\*\*The area is inaccessible due to damaged roads.

## Annex – II

List of floods affectees in Charsadda, Nowshera, Peshawar and Kohistan districts					
S#	District	Tehsil	Village	Affected families	Support required
1	Charsadda	Shabqadar	Srikh	900	Food, Medicine, Shelter
			Marozai	500	Food, Medicine, Shelter
			Masizai	600	Food, Medicine, Shelter
			Qala	400	Food, Medicine, Shelter
		Charsadda	Gulabad	700	Food, Medicine, Shelter
			Sukar	800	Food, Medicine, Shelter
			Ambadher	500	Food, Medicine, Shelter
			Aagra	900	Food, Medicine, Shelter
			Shekh Kaley	400	Food, Medicine, Shelter
			Nisata	2000	Food, Medicine, Shelter
			China	1500	Food, Medicine, Shelter
			Dagai	500	Food, Medicine, Shelter
			Majoki	600	Food, Medicine, Shelter
			Dab Ghareebabad	400	Food, Medicine, Shelter
			Mirzagan	800	Food, Medicine, Shelter
			Utmanzai	300	Food, Medicine, Shelter
			Babra	200	Food, Medicine, Shelter
		Tangi	Mrizadher	1200	Food, Medicine, Shelter
			Bear Ghari	700	Food, Medicine, Shelter
			Bella and Trakha	250	Food, Medicine, Shelter
2	Nowshehra	Nowshehra	Nowshera Kalan	5000	Food, Medicine, Shelter
			Khweshgi	2500	Food, Medicine, Shelter
			Pabai	200	Food, Medicine, Shelter
			Jahangeri	300	Food, Medicine, Shelter
3	Peshawar	Peshawar	Mulazai	100	Food, Medicine, Shelter
			Photwar	120	Food, Medicine, Shelter
			Matra	250	Food, Medicine, Shelter
			Miskan Abad	120	Food, Medicine, Shelter
			Khat Kornu	80	Food, Medicine, Shelter
			Kaniza	90	Food, Medicine, Shelter
			Hasan Gari	65	Food, Medicine, Shelter
4	Kohistan	Pattan	Bankhal	150	Food, Medicine, Shelter
			Hajidara	30	Food, Medicine, Shelter
			Sagodara	20	Food, Medicine, Shelter
			Shamadara	20	Food, Medicine, Shelter

S#	District	Tehsil	Village	Affected families	Support required
			Chowder	30	Food, Medicine, Shelter
		Kolai	Maidan	40	Food, Medicine, Shelter
			Koz Ranolya	200	Food, Medicine, Shelter
			Chansar Ranolya	300	Food, Medicine, Shelter
				23765 Families	
23765 Families or 166355 individuals (133055 adults and 33300 children) WFP KP has provided the food assistance to the above mentioned families.					

# Annex – III



## GOVERNMENT OF SINDH PROVINCIAL DISASTER MANAGEMENT AUTHORITY DAMAGES CAUSED DUE TO RAIN/FLOOD-2010

UPDATED AS OF 8/25/2010

1600 Hours b

District	Persons Died		Village Affected	Persons Affected	Area Affected (in acres)	Crop Area Affected (in acres)	Houses damaged		Persons injured/killed	Cattle feed perished	Relief Camps Established by Govt	Persons in Relief camps established by Govt
	BE	NBE					Fully	Partially				
Kashmore	6	4	435	592,800	405,524	405,124	31,108	29,234	14	62	47	150,000
Shikarpur	10	14	1,184	425,320	401,831	170,169	20,218	11,795	77	836	262	86,686
Sukkur	6		130	215,800	145,820	R.A.		145,820		112,948	268	186,227
Ghotki	-	3	133	100,340	105,157	105,157	9,200	1,225	578	41,776	114	15,381
Jacobabad	R.A.	R.A.	1,123	766,800	706,231	697,800	R.A.	R.A.	R.A.	R.A.	R.A.	R.A.
Larkana	6	2	116	67,890	R.A.	R.A.	R.A.	R.A.	R.A.	R.A.	499	180,323
Quamber		2	58	128,569	1,000	800		18		11	43	35
Shahdadkot												
Shikarpur	21		287	324,848	151,566	48,855	1,994	10,598	30	20	322	95,078
Karachi/Floors	4	8	223	68,800	103,876	63,800	5,227	1,368			202	24,221
Badin	6	6	381	378,800	77,140	59,326	54,000	144,897			206	85,032
S. Benazirabad		1	94	66,800	98,461	63,413	R.A.	R.A.	R.A.	R.A.	41	8,893
Hydrabad		1	35	65,467	25,828	R.A.	R.A.	R.A.	R.A.	R.A.	73	10,670
Jamshoro			130	178,800	3,830	9,850	2,048	858	8	187	68	15,481
Mulani	1	-	22	22,456	66,140	63,500	197	208		26	36	5,317
T.M. Khan		1	18	26,576	26,160	26,160	841	371	R.A.	R.A.	30	4,112
T. Allahpur												
Thatta	6	1	362	204,878	302,748	197,848	1,5	1,5	68	1,5	908	89,345
Badin											11	1,394
Mirpurkhas												
Karachi											23	29,147
TOTAL	66	43	4,610	3,884,367	2,858,932	1,711,156	134,623	346,067	767	165,776	2,369	379,082
		100										

FIGURES SUBJECT TO VARY AFTER DETAILED ASSESSMENT BY DISTRICT GOVERNMENTS CONCERNED

RA: Reports awaited

SOURCE:

DISTRICT GOVERNMENTS

NOTE: Reports of few districts is awaited which will be incorporated ASAP.

PHQ, NADRA

BE Bread Earner, NBE: Non Bread Earner In Kashmir all the bunds, shades, schools, have been declared as relief camps

U.S Under Survey

People evacuated from Shikarpur and Jacobabad are now heading towards Hyderabad, Jamshoro and Karachi. The government has raised tent cities in Karachi



# Annex – IV

## 25-Aug DAMAGES AND LOSSES OF BALOCHISTAN PROVINCE

District	Population Affected	Area Affected (sq.km)	Villages Affected	Deaths	Injured	Houses Damaged Partially	Houses Destroyed Completely	Cropped areas affected (in Acres)	Cattle head perished
SIBI	54,222	60	30	6	70	0	7,746	64,000	15,031
Naseer Abad	127,526	40	2,498	3	0	376	18,218	349,400	unknown
Barkhan	25,494	25	22	18	25	0	2,346	4,205	unknown
kohlu	59,430	33	50	1	2	0	6,550	0	unknown
Kachhi	3,000	47	19	1	2	0	286	152,100	unknown
Kila Saifullah	1,400	14	0	0	0	200	0	0	0
Jafer Abad	399,994	4	0	16	1	0	57,142	0	unknown
Ioralai	1,750	31	0	0	0	250	0	0	0
Musa Khail	700	9	0	0	0	100	0	0	0
Sheerani	1,050	0	0	0	0	150	0	0	unknown
Khuzdar	500	0	0	0	0	0	0	0	x
Jhal Magsi	0	13	0	0	0	0	0	61,000	Not reported
Harnai	805	0	0	0	0	100	0	0	Unknown
Mastung	250	0	0	0	0	0	0	0	x
Lasbela	0	46	0	3	0	0	0	0	X
Quetta	3,000	0	0	0	0	0	0	0	x
Total	679,121	322	2,619	48	100	1,176	92,288	630,705	
25-Aug									

# Annex – V

## PROVINCE-WISE SUMMARY OF DAMAGES & LOSSES GILGIT BALTISTAN

District	Population Affected	Area Affected (sq.km)	Villages Affected	Deaths	Injured	Houses Damaged Partially	Houses Destroyed Completely	Cropped areas affected in Acres	Cattle head perished
Gilgit	7,429		74	5	3	214	761	2,041	112
Skardu	4,877		29	56	4	32	112	1,144	1,213
Diamer	42,500		71	103	8	367	953	1,699	1,558
Ghizar	7,855		68	5	2	726	528	1,783	1,500
Ghanche	4,200		35	13	14	29	253	776	210
Astore	2,006		33	1	-	11	79	901	50
Hunza Nagar	12,738		37	-	-	36	144	639	26
Total	81,605	7,500	347	183	31	1,415	2,830	8,983	4,669

## Annex – VI

### Consolidated Report Regarding Losses (Human and Property) in PAK from 28 July – 24 August 2010

Division	Name of District	Persons Dead	Persons Injured	No. of Houses - Fully Damaged	No. of Houses - Partially Damaged	No. of Shops - Fully Damaged	No. of Shops - Partially Damaged	Cattle Head Perished	Other Losses
Muzaffarabad	Neelum	11	16	710	944	222	141	133	2 Hydro Power Stations of Pak Army 1 Bridge partially damaged at Deraian, 1 Furniture Factory 1 Power House (200 KW Kel Extension) > Building, residential quarters and the penstock pipes between old and new powerhouse has been completely swept away by the flood. 2 MW Power Station at Kundal Shahi has been partially damaged 2 Mosques damaged. 18 Schools partially damaged 16 Bridges (5 PWD, 11 LG&RD) damaged. 88 Ghazal (Water Mills) damaged. 2 mini and 20 General Hydro Power Stations have been damaged 3 Big and 1 small vehicle damaged
Muzaffarabad	Muzaffarabad	14	4	114	1079	65	173	7	100 KW Power Station at Patika damaged, 3 persons missing
Muzaffarabad	Hafisan	10	9	89	286	17	0	8	1 School completely damaged, 9 Ghazal (water mill) damaged 1 Masjid damaged.
Mirpur	Mirpur	3	0	0	0	0	0	0	1 Water Channel for power houses of Leepa and Kathal has been damaged. 362 families displaced from low lying areas of the reservoir due to entry of water in their houses.
Mirpur	Kotli	6	2	3	4	0	0	0	1 poultry farm collapsed and 2,000 chicken died.
Mirpur	Bhimber	3	10	0	142	15	0	26	3 Fish Farms, 2 mini dams and 1 cattle farm partially damaged.
Poonch	Rawalakot	0	1	155	195	17	6	4	1 Poultry farm completely collapsed.
Poonch	Bagh	6	4	169	2110	137	73	5	10 Crush Machines, 1 Govt. Primary School Building and 2 Private School buildings completely damaged.
Poonch	Sudhmaji	11	32	65	134	3	0	0	1 Hase Van and 1 Truck damaged in accident.
Poonch	Haveli	7	7	191	610	41	98	105	2 Cers damaged due to landsliding.
<b>TOTAL</b>		<b>71</b>	<b>87</b>	<b>1,496</b>	<b>5,504</b>	<b>517</b>	<b>491</b>	<b>288</b>	

Source: State Disaster Management Authority. Total Population affected is estimated to be more than 132,000 people.

# Annex – VII

## FLOOD EMERGENCY CENTER P&D DIRECTORATE POSITION OF ROADS IN PUNJAB

Sr.No.	Name of Road	Flood Affected Road Sections/Kms	Traffic Condition
1.	Lahore Sargodah Mianwali Bannu Road Art: 2 from Km NO 267.37 to 409.26 L = 141.89 in <b>District Mianwali</b>	<ul style="list-style-type: none"> <li>Mianwali - Kalabagh Section</li> <li>Kalabagh to Essa Khel upto Provincial Boundary * KM 379 to 381 (Jhalasr) Water passing 1 ft.</li> </ul>	<ul style="list-style-type: none"> <li>Open for all types of traffic upto Jinnah Barrage. Light traffic from Mianwali to Kalabagh is playing through old road rail cum bridge.</li> <li>Opened for all type of traffic.</li> </ul>
2.	Jinnah Barrage Link road Length 7.70 Km, <b>District Mianwali</b>	Jinnah Barrage to Kot Chandana near Kalabagh	Road closed for all type of traffic. Due to breaching of R.M.B by Irrigation Department.
<b>Heavy traffic is presently using alternate route of Mianwali Chashma Dara tang Bannu road.</b>			
3.	Chund Massen to Pir Kot Sadhana road, Length 25.50 KM <b>District Jhang</b>	Km 20 to Km 25 Water over topping the road	Road closed for all type of traffic.
4.	Rangpur - Chowk Munda - Daira Din Pannah Upto Pulli Qambar on Indus Highway <b>District Muzaffargarh</b>	<ul style="list-style-type: none"> <li>i) Daira Din Pannah Chowk toward chowk Munda</li> <li>ii) Pulli Managsian Pulli Qambar Km 67 - 68</li> </ul>	<ul style="list-style-type: none"> <li>Road opened for all type of traffic.</li> <li>Road closed for all type of traffic. (Water passing through 5 Nos. Road cuts)</li> </ul>
5.	Karam - Daed Qureshi - Kot Addu - Layyah Road (Km 09 to 54), <b>District Muzaffargarh</b>	<ul style="list-style-type: none"> <li>i) Section Karam Daed Qureshi to Adda Gurmami (Head Kalroo)</li> <li>ii) Section Kot Addu Bye Pass</li> <li>iii) Adda Gurmami-Gujrat Town-Sanawan-Kot Adu-Daira Din Pannah</li> </ul>	<ul style="list-style-type: none"> <li>i) Road opened for all type of traffic. (Steel/Boat Bridge has been erected)</li> <li>ii) Road opened for all type of traffic.</li> <li>iii) Road opened for all type of traffic.</li> </ul>
6.	Jatol to Karam Daed Qureshi <b>District Muzaffargarh</b>	Km 59-60 (Near Shah Jamal)	Road open for light and medium heavy traffic <b>3 Nos. Boat bridge erected</b>
7.	Khangarh Shah Jamal Road <b>District Muzaffargarh</b>	Km 6.2-7.2	Road open for light and medium heavy traffic <b>3 Nos. Boat bridge erected and 2 cut filled.</b>

# Annexure VIII

## Flood Emergency Center P&D Directorate Position Of Roads In Punjab

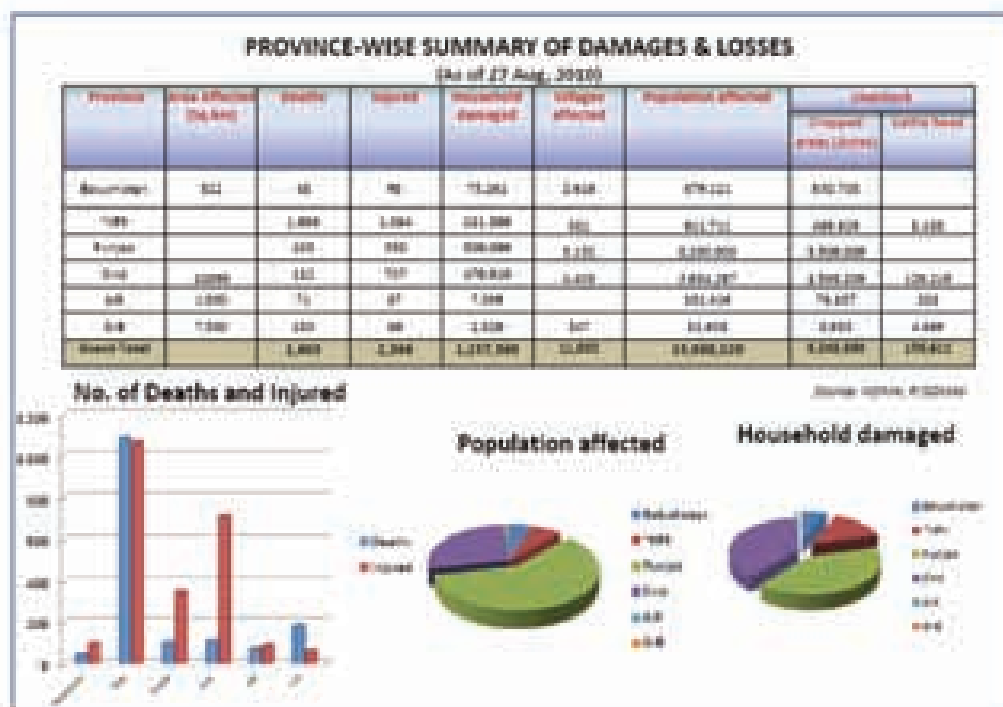
Sr.No.	Name of Road	Flood Affected Road Sections/Kms	Traffic Condition
1.	Lahore Sargodah Mianwali Bannu Road Art; 2 from Km NO 267.37 to 409.26 L = 141.89 in District Mianwali	Mianwali - Kalabagh Section Kalabagh to Essa Khel upto Provincial Boundary * KM 379 to 381 (Jhalar) Water passing 1 ft.	Open for all types of traffic upto Jinnah Barrage. Light traffic from Mianwali to Kalabagh is playing through old road rail cum bridge. Opened for all type of traffic.
2.	Jinnah Barrage Link road Length 7.70 Km, District Mianwali	Jinnah Barrage to Kot Chandana near Kalabagh	Road closed for all type of traffic. Due to breaching of R.M.B by Irrigation Department.
Heavy traffic is presently using alternate route of Mianwali Chashma Dara tang Bannu road.			
3.	Chund Massan to Pir Kot Sadhana road, Length 25.50 KM District Jhang	Km 20 to Km 25 Water over topping the road	Road closed for all type of traffic.
4.	Rangpur - Chowk Munda - Daira Din Pannah Upto Pull Qambar on Indus Highway District Muzaffargarh	i) Daira Din Pannah Chowk toward chowk Munda ii) Pull Managsian Pull Qamber Km 67 - 68	Road opened for all type of traffic. Road closed for all type of traffic. (Water passing through 5 Nos. Road cuts)
5.	Karam - Daad Qureshi - Kot Addu - Layyah Road (Km 09 to 54), District Muzaffargarh	i) Section Karam Dad Qureshi to Adda Gurmani (Head Kalroo) ii) Section Kot Addu Bye Pass iii) Adda Gurmani-Gujrat Town-Sanawan-Kot Adu-Daira Din Pannah	i) Road opened for all type of traffic. (Steel/Boat Bridge has been erected) ii) Road opened for all type of traffic. iii) Road opened for all type of traffic.
6.	Jatoi to Karam Dad Qureshi District Muzaffargarh	Km 59-60 (Near Shah Jamal)	Road open for light and medium heavy traffic 3 Nos. Boat bridge erected
7.	Khargarh Shah Jamal Road District Muzaffargarh	Km 6.2-7.2	Road open for light and medium heavy traffic 3 Nos. Boat bridge erected and 2 cut filled.
8.	Muzaffargarh to Mondka Shah Jamal Road District Muzaffargarh	Km10,11,12,13,14 & 15 Road cut in Km 12,13,& 14width 250 150 150 ft.	Road closed for all type of traffic. (Road is under flood water 1 ft.)
9.	Wasanday Wali Dewala Road District Muzaffargarh	Km 3,4,8,11 4 No. Road cut	Road closed for all type traffic Water is passing through the road cut
10.	Kot Chutta to Drahma Length = 21.00 KM, District D.G. Khan	KM No. 19 6 inches water over topped and breached the road	Road closed for all type of traffic.
11.	Adda Rind to Bait Bat Wala Length = 14.35 KM, District D.G. Khan	Km No. 8 Flood water breached the road down stream of flood bund of Ghazi Ghat.	Road closed for all type of traffic.
12.	N-55 (Trimin) Distry No. 25 to Shah-diawala Length = 12 Km District D.G. Khan	Km 0 to 6 Flood water breached the road at different five locations	Road closed for all type of traffic.
13.	Vehova to Mithawan U/c Vehova Length 9.85 KM District D.G. Khan	Km 2,5 and 6 Flood water breached the road 200 Rft damaged in km 3	Road closed for all type of traffic.
14.	Fazilpur to Hajipur road. Length = 14.49 KM District Rajanpur	Km 4 damaged	Road open for all type of traffic.
15.	Dajal to Miranpur via Tibbi Solgi road Length = 19 KM District Rajanpur	Numerous breaches/road crust and bridge/culverts are damaged.	Road closed for all type of traffic.



16.	Indus Highway to Noorpur via Kotla Rubait road Length = 14.00 KM District Rajanpur	Km No. 1 1.5 to 2 Ft. water in causeway	Road closed for all type of traffic.
17.	Chak Shaheed to Bakharpur road Length = 12 KM, District Rajanpur	Km 1 The road crust breaches and berms damaged.	Road closed for all type of traffic.
18.	Rajanpur to Hajipur Length = 28.02 KM. District Rajanpur	KM No. 4, 22 & 25 Flood water cut the road and damaged the berms.	Road open for all type of traffic. Steel bridge erected in Km 4 cut filled in km 22
19.	Jalapur to Fatehpur road and extension from jalapur to Indus Highway Length = 19.36 KM, District Rajanpur	KM No. 6 1.5 to 2.5 ft. water in causeway	Road closed for all type of traffic.
20.	Aqilpur to Bait Sountra Length = 15.67 km District Rajanpur	Km No. 15 Flood water 3" overtopped the road.	Road closed for all type of traffic.
21.	Jampur to Kotla Muughlan Length = 7.12. District Rajanpur	KM No. 1 & 2	Road closed for all type of traffic. (Boat bridge erected in Km 1)
22.	Soon Miani Bhung to Ibal Abad (Kacha Razi Road) Rojhan Length = 5.70 km District Rajanpur	KM 0.00 to 5.7 Flood Water 1' overtopped the road.	Road closed for all type of traffic.
23.	Fazilpur-Hajipur (Dhundi Adda) road to Mud Haji Haibtan Length = 4 km District Rajanpur	KM No. 1 Flood water 6" overtopped and breacherd the road	Road closed for all type of traffic.
24.	Rajanpur Kashmore road Mile 38 (Tower Chowk) to Rojhan city Length = 8.00 km District Rajanpur.	KM No. 4 Flood water damaged the culverts / berms	Road closed for all type of traffic.
25.	Rahim Khan Petroleum Indus Highway to Railway Crossing via Basti Rind Sakhi Length = 8.00 km District Rajanpur.	KM No. 1 Flood water damaged the culverts / berms of the road.	Road closed for all type of traffic.
26.	Qasba Kin via Basti Faqir Muhammad Khird Basti Faiz ullah Taibrani Sawali-jat Taura Lunjwani Piran Ditta Bhatti Length = 3.50 km District Rajanpur	KM No. 2&3 Flood water 6" & damaged the culverts / berms of the road	Road closed for all type of traffic.
27.	Rajanpur-Muhammadpur Gum wala Bmp Post Length = 6.75 km District Rajanpur	KM No. 1 & 2 Two cuts made by irrigation Department to protect the Rajanpur City.	Road opened for light traffic. (Boat bridge has been installed over cuts)
28.	Noorpur Nawan Shahir U/c Noorpur Manjhu wala Length = 5.10 km, District Rajanpur.	KM No. 2 & 4 6" water overtopped and breached the road.	Road closed for all type of traffic.
29.	Rajanpur-Kashmor Road Mile 38 to Uzman via Bhundo Wali Length 13.50 KM District Rajanpur	Km. 0.00 to 9 flood water about 9 inches overtopped the road	Road closed for all type of traffic.
30.	Highway to Dera Sardar Amin Khan Mazari Length = 5.00 KM District Rajanpur	KM 0.00 TO 5 Flood Water Damage the Berms	Road closed for all type of traffic.
31.	Indus Highway Mile 29 to Basti Bhorra Lunjwani on the Right Bank of Tariq Minor Length = 8.00 Km District Rajanpur	Km 0.00 to 4 Flood water damaged the berms	Road closed for all type of traffic.

32.	Hajipur to Nawan Shahir Length 9.00 Km District Rajanpur	Km 5 9" water overtopped and breached the road	Road closed for all type of traffic.
33.	Sadiqabad - Kashmore road Length = 35.00 KM District R.Y.Khan.	Dauwala to Switra km. No. 21.50 to 35.00 Road cut developed about 25 ft. in Km. 33 Water Overtopped at KM No. 27.4 to 28.8	Road open for Light traffic Steel /Boat bridge erected in Km 33
34.	Road from Bye pass Fateh Pur Tiwana to Ehsan Pur (Length: 2.50 Km) District R.Y Khan	Km 1.00 Flood Water overtopped and damaged the Road	Road closed for all type of traffic.
35.	Road from Adabpur Chak No. 49/NP to Basti Bhattian (Length: 0.40Km) District R.Y Khan	Flood water overtopped the entire length of the road	Road closed for all type of traffic.
36.	Road from Basti Taj Muhammad Nehaya to Haveli Sayedan (LengthL 2.70 Km) District R.Y Khan	Flood water overtopped the entire length of the road	Road closed for all type of traffic.
37.	Road from Basti Semeja to Bhong - Dauwala alongwith Sui Gas (Length 2:00 Km) District R.Y.Khan	Flood water overtopped the entire length of the road	Road closed for all type of traffic.
38.	Bridge near Head Fazil Over Bhong Canal & approach Road (Length : 1.00 KM) District R.Y.Khan	Flood water overtopped the entire length of the road	Road closed for all type of traffic.
39.	Road from Basti Khawaja Mian Mazhar Ahmed road to basti Shabbir Ahmed Shah Mouza Chohan Laiquat-pur (length 0.62 Km) District R.Y.Khan	Km 0.32 to 0.62 Flood water overtopped the entire length of the road	Road closed for all type of traffic.
40.	Road from Dera Faridi road to 16/22 Adda Nazimabad (Length 0.79 Km) District R.Y.Khan	Flood water overtopped the entire length of the road	Road closed for all type of traffic.
41.	Road from Basti Pehlwan to Basti Jam Manzoor (Length = 0.9 Km) District R.Y.Khan	Flood water overtopped the entire length of the road	Road closed for all type of traffic.
42.	Road from Mian Akmal Sheikh Riyaz Abad to Basti Dingra Malook Shah via Asghar khird alongwith repair of Bridge over Bhong Canal (length 4.00) District R.Y.Khan	Km 3 to 4 Flood water overtopped the entire of the road	Road closed for all type of traffic.
43.	Gulehra Gali to Patriata Rest House. Murree	Km 7-10	Road open for light traffic.
44.	Pasrure, Norwal Road	KM 12 Qila Ahmadabad (9" Water in causeway)	Road open for all type of traffic

# Annexure IX



## Up-Dated Tentative detail of Damages Caused in Balochistan due to Heavy Rains /Floods 25th August, 2010

[illegible]

# Annexure XI



## GOVERNMENT OF AJK STATE DISASTER MANAGEMENT AUTHORITY

DAMAGES CAUSED DUE TO RAIN/FLOOD-2010

UPDATED AS OF 9/7/10

1500 PST Hours

PROVISIONAL

District	Persons Died	Village Affected	Persons Affected	Area Affected (in acres)	Crop Area Affected (in acres)	Houses damaged			No. of Affected Families	Persons injured/disabled	Cattle head	Roads Damaged (Nos.) / Length	Government Buildings Affected	Relief Camps Established by Govt	Persons in Relief camps established by Govt
						Katcha	Pakka	Total							
	BE														
1 Neelum	9	2	79	100,000	370,500	4,199	1,654	1,654	14,286	18	133	19.25	14	-	-
2 Muzaffarabad	10	4	404	9,093	24,700	14,993	1,393	1,393	1,515	4	7	105.48	-	-	-
3 Hattian Bala	7	3	56	2,635	7,410	5,772	375	375	439	9	8	38.78	5	-	-
4 Bagh	4	2	102	15,953	7,410	5,286	2,279	2,279	2,659	4	5	73.23	1	-	-
5 Haveli	5	2	102	5,607	2,470	2,396	801	801	934	7	105	57	1	-	-
6 Rawalakot	-	-	39	2,450	2,470	6,946	350	350	408	1	4	62	30	-	-
7 Sudhanutti	9	2	52	1,393	17,290	4,446	199	199	232	32	-	51	65	-	-
8 Kotli	4	2	33	50	-	20,674	7	7	8	2	-	0	18	-	-
9 Mirpur	3		18	2,500	6,175	2,717	-	-	417	-	-	0	20	-	-
10 Bhimber	3	-	53	994	6,175	7,963	142	142	165	10	26	0	4	-	-
<b>TOTAL</b>	<b>71</b>	<b>938</b>	<b>140,675</b>	<b>444,600</b>	<b>75,392</b>		<b>7,200</b>	<b>7,200</b>	<b>21,063</b>	<b>87</b>	<b>288</b>	<b>407</b>	<b>158</b>		

**NOTE:** THIS IS PROVISIONAL DATA. P&D DEPARTMENT IS COLLECTING INFORMATION IN COLLABORATION WITH ALL LINE DEPARTMENTS

NA: Not Available

RA: Reports awaited

U.S Under Survey

BE Bread Earner, NBE: Non Bread Earner







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