A Painful Ordeal

History of flood 2010 in Muzaffargarh
Preamble

The recent flood in the country and particularly in District Muzaffargarh has caused colossal damage and inundated many villages. Nature has wiped out the odd and archaic infrastructure in one devastating swoop from north to south. The magnitude of the flood can well be imagined from UNO assessment that more than 20 Million people are homeless as a result of flood, exceeding the combined total of individuals affected by 2004 Indian Ocean Tsunami, 2005 Kashmir and 2010 Hattie earthquakes. It is believed that 1/5 of Pakistan’s total land has come under water due to flooding. Although the world has seen many deadly floods such as in China in 1931, 1975, 2007, Netherlands 1530, Vietnam 1971, Bangladesh 1974, 1987, Iran 1954 and Philippine 2006 etc; yet the present series of floods in Pakistan is unprecedented and it has brought immeasurable loss, both to lives and property. The toll of suffering is horrendous. People are displaced by cruel waves of mighty Indus and forced out of their houses and hearths. They had to flee their homes with nothing but the clothes they were wearing.

Although flood has affected 44 districts of Pakistan but Muzaffargarh is the worst of all. More than 2 million people have been displaced by raging waters of Indus and are forced to live under open sky with an added grievance that nobody bothers about them. People rendered homeless are seen roaming from pillar to post to get square meals amid deplorable conditions. They have been deprived of their crops, lands, livestock, income and means of livelihood.

The experts attribute these floods to a number of reasons of which global warming is considered the first one. Rich countries of the world are being blamed and it is generally presumed that global warming is promoting excessive rains and consequently catalysis floods. In Pakistan the temperature
started rising in May and it was recorded as 53.5 in Mohinjodaro (Sindh). The day was the hottest one not only in Pakistan and Asia, but also the fourth highest temperature ever recorded on earth. Monsoon rains started in early July 2010 and record breaking rain, the worst in last 80 years (274mm), was recorded in Peshawar. These rains were followed by hill torrents which gave rise to floods in the Northern Province, and water started moving downwards to Punjab and Sindh.

Many other reasons have also been put forward to explain the puzzling and disquieting phenomenon of flood but the unpreparedness and negligence on the part of Irrigation authorities is being considered as an important cause of this worst disaster which has afflicted the country. The Metrological Department had forecast the heavy rains and in spite of advance knowledge, no adequate measures were taken in time. It is also alleged that breeches in the embankments which unleashed large scale of devastation were not natural but man made and politically motivated. Strong public sentiments against political leaders perceived as the architect of this unmitigated disaster have also been noticed in the media. Many environmental and demographic changes also contributed to this tragedy.

There is no denying the fact that the flood has paralyzed the life and shattered the economy, infrastructure and heritages. It has made the task of rehabilitations and reconstruction a big challenge. Inspite of coverage of flood in the media, certain aspects of disaster still need to be highlighted so that a true picture of miseries and misfortune becomes visible and facts are known to all those who are interested in helping these affected people. An effort has been made to unveil all aspects of floods from causes to suggestions with the hope that this brief description of facts will help the policy makers, stakeholders, planners, civil society activists and individuals in understanding the real magnitude of this disaster and in shaping the new era of rehabilitation and reconstruction.
Profile of the District
Muzaffargarh is an old and prominent district of Punjab province and is situated between two rivers ie Indus on right side with distance of 35 KM from District Head Quarter and Chanab on left 8KM away from city. It attained the status of district in 1861 with Mr. J.S Tye as first Deputy Commissioner. Muzaffargarh was an underdeveloped district before independence but it made tremendous progress after 1947 and especially in last two decades. A large number of industrial units like Pak Arab Oil Refinery, three Thermal powers, 20 textile mills, two jute mills, three sugar factories and many other big and small units have been established in the district. It is interesting to note that about 1/5 of the total electricity of the country is produced in this district.

Flood History
The river Indus has been flowing very gently and low flood had been witnessed in proceeding 80 years except in 1929. Similarly, the Chanab became violent on two occasions only. It may be added here that the normal flow of Indus remains 2 to 3 lac cusecs feet and of Chanab 1 to 1.5 lac cusecs feet and high flood starts when the flow exceeds this limit.

Moving With the waters
The water level in Indus started increasing from 31July and an unusual flow was witnessed during August, 2010. The below table showing water flow at different dates is an eloquent testimony to this fact.

<table>
<thead>
<tr>
<th>Date</th>
<th>Maximum Discharge/cusecs feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-08-2010</td>
<td>959991</td>
</tr>
<tr>
<td>03-08-2010</td>
<td>934</td>
</tr>
<tr>
<td>04-08-2010</td>
<td>790</td>
</tr>
</tbody>
</table>
As the pressure of water piled at Tounsa Barrage, it came out of the river bank and reached protective embankments of Abbas wala on the left side of the river Indus near D.D Panah. The embankment could not resist the pressure as it was not properly maintained and repaired and it breeched on 2-8-2010 at 4:09 PM. The water entered the city of D.D Panah and then moved rapidly to the southern side of T.P Link canal. It over flowed the canal banks and water started gushing towards Kot Addu city after making breeches in canal. It continued advancing towards south and reached Mehmood kot after crossing the cities of Sinawan, Gurmani and Gujrat and submerging many villages. The sensitive installation in the towns of Gujrat like Oil Rifinery, P.S.0 Depot, Grid Station and AES Lal Peer Power House came under four to eight feet flood water and a breech in Muzaffargarh canal was made as a part of measure to protect these industrial units from complete destruction. The water moved towards the town of Budh, Baseera and entered the city of Sher Sultan on 17-08-2010 after crossing a area of 140 KM. The traffic between Muzaffargarh to DG khan, Muzaffargarh to Kot Addu and Muzaffargarh to Alipur was suspended as four to six feet high water was over flowing on these roads and at certain places it eroded the roads and made the flow of traffic impossible.
On the other hand the administration declared high alert in the main district Head Quarter city on 08-08-2010 at 4:00 AM in the morning and asked the people to move to safe places. A large number of people who had migrated from Kot Addu and others areas and were staying in the city either in camps or with the relatives, once again starting moving to other cities and the panic scene which human eyes observed on that day are unprecedented in history of the district. The city was deserted by the evening and only Govt; employees were seen on duty although they had also shifted their families to other places. The offices, banks, courts, shops were completely closed and the situation continued for 3-4 days unless the breech in canal on the northern side of the city was plugged and city was declared safe. The Indus water started receding from 25th August although it is still flowing in the southern towns. The main breeches in Abbas wala embankment have been plugged and after down fall in the water the mighty Indus has returned to its own normal river bed. The water is still standing in the fields especially in the low lying areas and the access to many places is still impossible owing to the destruction of roads, bridges and canal banks.

The Losses/effects
The recent flood has destroyed the infrastructure like roads, bridges, transmission lines, grid station, schools, hospitals, buildings etc and shattered the economy. The people who had stayed to look after the homes and valuables became marooned and suffered from starvation and hunger as the water continued flowing for one month which is beyond the normal flood which often recedes after a few days. As a result of this disastrous flood almost all the people have lost their belongings in swirling flood water. The area is littered with animal carcass, human dead bodies, saline water brought from the main drain passing near Muzaffargarh canal which was constructed for draining out saline water. The mixing of water will devastate the fertile
farm lands and render them unsuitable for cultivation for several years. It has created greatest challenge for the feeding of the cattle as fodder has been completely washed away by the cruel waves. The detail of visible losses is as under.

- More than 2 Millions People out of 3.504 m total population have been hit, hurt and displaced. According to NADRA three lac families (Consisting of average 7 persons) have been affected.
- The standing crops of cotton 91%, rice 93%, sugar cane 70% and fodder 97% have been destroyed.
- An area of 398203 acres out of 783283 acres cultivated/ sown has become under water.
- Thousands houses in 599 revenue villages have been razed to ground and submerged by flood water.
- Infrastructure like road, bridges, health units, veterinary hospitals, schools buildings and canal embankments have been swept away by the swirling water.
- 51 persons are reported to have died/drowned in the flood although the unofficial number is in hundreds.
- 30 % of total road have been damaged.
- More than 600 schools have been affected.
- The number of health units damaged in the flood is reported as 21. (rural health center 3, basic health center 18).

The flood has not only washed away the houses, shelters, crops, etc but taken away the dreams, hopes and ambitions of millions of people. Out of 93 Union councils following 72 have been affected.
<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Tehsil</th>
<th>Total No. of Union Councils</th>
<th>Total Population 2006</th>
<th>Severely Affected UCs (More than 50%)</th>
<th>Moderate Affected UCs (Less than 50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Muzaffargarh</td>
<td>35</td>
<td>1210864</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Kot Addu</td>
<td>28</td>
<td>969084</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Ali Pur</td>
<td>14</td>
<td>484758</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Jatoi</td>
<td>16</td>
<td>550243</td>
<td>Zero</td>
<td>7</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>93</strong></td>
<td><strong>3214949</strong></td>
<td></td>
<td><strong>36</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

The flood water has destroyed 91.77% cotton, crop, 70%-sugar cane, 93%-rice and 97%-fodder crop in the distt. The further tehsilwise detail is as under:
The district is 2\textsuperscript{nd} largest district in the province in live stock sector. During flood 5 Civil Veterinary Hospitals & 28 Veterinary Dispensaries out of total 89 have been damaged.

Communications:

<table>
<thead>
<tr>
<th>Roads</th>
<th>Total Length</th>
<th>Damaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Govt, roads</td>
<td>2516.03 KM</td>
<td>728.82 KM</td>
</tr>
<tr>
<td>Provincial roads</td>
<td>550 KM</td>
<td>70 KM</td>
</tr>
<tr>
<td>National Highway roads</td>
<td>45 KM</td>
<td>7 KM</td>
</tr>
</tbody>
</table>
Railways
The Railway line was started/constructed in 1886 and the train service continues between Mutan and Rawal pindi and Multan & Queta. The railway line between railway station Budh to Mehmood kot (9 KM) has completely been washed away. Similarly breeches have occurred near railway station Guramani, Sinawan, Kot Addu and DD Panah. The rail traffic is suspended till today causing heavy losses to railways and inconvenience public.

Education:

<table>
<thead>
<tr>
<th>Schools</th>
<th>Total No.</th>
<th>Damaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>1906</td>
<td>337</td>
</tr>
<tr>
<td>Middle</td>
<td>194</td>
<td>35</td>
</tr>
<tr>
<td>High</td>
<td>110</td>
<td>17</td>
</tr>
<tr>
<td>Colleges/ HSS</td>
<td>17</td>
<td>6</td>
</tr>
</tbody>
</table>

The National Commission for Human Development (NCHD) has established 407 Feeder Schools in the Distt. and out of it 229 have been damaged. Similarly, a number of schools in private sector have also been inundated by the flood water.

Health
The flood water has also damaged health institutions in the distt. The detail are as under:
1- The water entered in tehsil HQ hospital Kot Addu
2- 21 Basic Health centers out of all 71 were damaged
Electricity
1-Two thermal power stations KAPCO-Kot Addu with capacity of 1600 MW and AES Lal pir 726 MW were damaged and production suspended.
2-Grid station, Transmission lines etc were damaged in two tehsils.

Fisheries
The fish farms on 1700 acres of land have been completely washed away by the flood water.

Food Department
The Provincial Food Depts. has established many food storage centers here where the wheat is purchased from the farmers in the M/O April, May every years & is stored in these godowns. The flood water damaged about thirty thousand bags at each centre located at Kot Addu, Senawan, Sheikh Umar, Ghazi Ghat and Rakh Harpaloo. Causing loss of million of rupees.

Relief Measures by Government
All the three tiers of Govt, i.e. Federal, Provincial and District are engaged in relief activities. President Islamic Republic of Pakistan visited the flood affected areas of the District. He was accompanied with U.N Genral secretary Bankimoon. Prime Minister of Pakistan and Federal Ministers also visited the district and distributed dry ration and other relief goods amongst affectees. The Minister of stat for economic affairs Miss Hina Rabani Khar also visited the flood affected areas of Kot Addu, Sinawan, Baseera, Ghazi Ghat and Sultan Colony and distributed relief goods to affectees. The Chair person NCHD Muhtarma Nafeesa Shah also visited the district along with Mr
Zulfiqar Ahmad Director General and Muneef Malik Director Punjab Province. She distributed 10 trucks of dry ration amongst the flood affectees and visited the NCHD camps/ villages on Mehmmod Kot road.

The Chief Minister Punjab has frequently been touring and visiting nearly all affected towns of the district. He took notice of the complaints made by affectees against the Government Officials and removed the two District Coordination Officers, an Executive Engineer irrigation, Executive District Officer Revenue, Deputy District Officer Jatoi and Executive District officer Health from their post on account of bad governance. Mr Tahir Khurshid a senior and experienced officer of district management group is the third DCO of the district with in a period of one month.

The District Government adopted pre-flood and post- flood measures. The people were rescued and evacuated during flood but due to inadequate resources/ equipments, thousands of people became stranded and are still marooned. The District Government has following flood fighting equipments.

<table>
<thead>
<tr>
<th>No.</th>
<th>Equipment</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dewatering set</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>Boats</td>
<td>08</td>
</tr>
<tr>
<td>3</td>
<td>Life Belt</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Lifer Jackets</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>Volunteer</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>Showels</td>
<td>90</td>
</tr>
<tr>
<td>7</td>
<td>Helicopter</td>
<td>01, Later on 3 more were added</td>
</tr>
<tr>
<td>8</td>
<td>Private Boats</td>
<td>60</td>
</tr>
</tbody>
</table>
The District Government set up 50 relief camps in Govt, schools and buildings for affected people and provided them shelter and food. These camps were first closed on 9th August when high alert was declared in the city and finally on 31-08-2010. The state of camps was pathetic and environmental conditions unsanitary. Mostly the rice was served to the affectees which is not liking of people who are used to roti.

Besides Relief camps the District Govt, is distributing Dry Ration, Tents and other goods which are received from individuals NGOs and other districts and are stored in Comprehensive High School which is notified as Ware House. According to the statistics released by District Govt, the relief work taken up till 23-08-2010 is as under.

The District Govt, is also carrying out survey of damages and loss and a survey committee consisting of Village Patwari, Head master of school, member of youth council etc has been constituted. The Committee has been asked to complete its task at the earliest.

- The Live Stock Department started vaccination of animal and is also distributing wanda amongst the cattle owners. Similarly 67 camps have been set up in various areas of the districts and 4 mobile dispensaries remain roaming through out the day. The department treated 576833 animals and distributed 4050 bags of wanda.

- The role of Pakistan Army has been lauded by all segments of society. Pak Army did commendable work in rescue, evacuation & relief operations. The food was supplied by Pak Army to stranded people sitting on sand dunes & high places surrounded by flowing water.

- Rescue 1122 remained alert and active and helped the people as and when called.

- The Director General Social Welfare Punjab Mr.Akhtar Nazir Warraich frequently visited the district and managed dozens of relief goods, trucks for flood for affected people by managing the resources from other districts/places.
Relief work by Stake Holders / Civil Society

The civil society and individuals are also participating in relief work and providing food, shelter, health and water facilities. The NGOs have acquired immense importance these days being closer to the community and effective service provider. There is no denying the fact that our NGOs are evolved in commendable service to the community and have established credibility with the people by demonstrating capability and commitment. The Islamic countries of Iran, Saudi Arabia and Turkey are also providing aid in the shape of shelter and food. Some international NGOs have installed water filtration plant. The traders, industrialist, individual and all organizations from all over the country and abroad are generously sending their relief goods and some of them are distributing it with their own hands probably on account of trust deficit. The UNO agencies are organizing Govt, authorities/NGOs into clusters for relief action includes nitration, shelter, health, WASH. Although many national and international agencies are attending to the emergency call of the people yet the response is very slow and less vigorous.

The prominent international organizations involved in relief and rehabilitations work are as under.
UNO (UNICIEF), WHO,
OXFAM
PLAN International
Save the Children
Care international
Concerns
Humanity First
The National organizations actively involved in the flood relief activities are as under:
National Commission for Human Development (NCHD)
DOaba Foundation
Sangh foundation
District NGO Network Muzaffargarh
SPO
Mojiz Foundation
Al khidmat Foundation
Minhaj Welfare Foundation
Falih Insaniyat
SYCOP Muzaffargarh
Traders Association
Pakistan Goods Transporters Association
Indus Textile/Sunrais
Mahmood Textile Mills
Problems / Threats

The flooded areas/ people are having unusual problems which have made their life miserable. The field survey in union councils Kashifabad Mehmood kot and Wahan Pittafi (Tehsil kot Addu) Shahjamal, Taliri and Manka Bhuta (Tehsil Muzaffargarh) and Bait Meerhzar (Tehsil Jatoi) reveals that the people are facing following major problems.

- The rehabilitations / reconstruction is the most important issue these days. As the water is receding, the people are preparing to go back but the question is where to stay? Their houses have been converted into debris and they are badly in need of shelter. They are forced to live in open tents and shabby camps after being thrown away from homes by the flood.
- The restoration of access by plugging the breeches in canal and repairing the roads, bridges and other infrastructures is another problem. The roads have either been cut away by authorities or eroded by the flood water. The people are unable to reach their homes as no access is available.

- The non availability of clean drinking water is another matter of concern of flood victims. The drinking water is polluted due to flood water in which human dead bodies and animal carcasses, insects etc are seen floating.

- There is acute shortage of food as the stock of grain/ wheat has been drained away by flood water and the people who were surprisingly caught by water did not find time to carry it to safer places. People are faced with hunger and deprivation. Individuals/ NGOs are bringing huge quantity of grain and food items but these are not distributed in an orderly manner. Scuffles are reported over grabbing of different goods among IDPs.

- The polluted environment, stagnant and contaminated water has given birth to the diseases like diarrhea, gastro, skin affect and scabies. The District HQ Hospital is being visited by thousands people every day. No any health facility is available to IDPs as the nearest hospitals are lacking medicines and staff. The available stock of medicines is going to be quickly consumed and according to MS DHQ the shortage of human resource and medicines are two major issues likely to be faced by health authorities. Serious, sever and alarming heath issues have cropped up. WHO report dated 5-9-2010 states that acute diarrhea, respiratory infection, skin disease and suspected malaria remain the leading causes of seeking health care in the flood affected areas. It further adds that 108979 patients’ consultations were reported on 2-9-2010 in flood areas of Pakistan and the ratio of diseases in Punjab as noticed on 3-9-2010 is as under.

1. Diarrhea 11%
2. Skin Infection 24%
3. Respiratory 18%
4. Fever 10%
5. Others OTH 26%
In Muzaffargarh the states of diseases is reported is as under.

<table>
<thead>
<tr>
<th>Types of disease</th>
<th>No of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gestro</td>
<td>52609</td>
</tr>
<tr>
<td>2. Injuries</td>
<td>6174</td>
</tr>
<tr>
<td>3. Skin infections</td>
<td>58184</td>
</tr>
<tr>
<td>4. Fever</td>
<td>4648</td>
</tr>
<tr>
<td>5. Eye/ear infections</td>
<td>25714</td>
</tr>
<tr>
<td>6. Snake bite/RTI</td>
<td>39548</td>
</tr>
<tr>
<td>7. Other diseases</td>
<td>66994</td>
</tr>
<tr>
<td>Total Treated Patients</td>
<td>283435</td>
</tr>
</tbody>
</table>

- Live stock losses have added to catastrophe in the District. The Washington Post in its issue on 29th August described the situation as under “The UN agency said the flooding has killed at least 2 Lac Livestock. The animals have been wiped out and those who remain have lost their production capacity due to illness and stress. Feed has been destroyed and barns collapsed” The feeding of animals is another important issue as the fodder crop has been damaged and husk eroded by flood water.

- The issue of livelihood is another serious problem. Due to standing water, the sowing of next crop is impossible. The rural population which consists of 87% of the total population of the district is dependant on agriculture. Due to unsowing not only the shortage of grain is apprehended but the unemployment of agriculture workers will further add to the poverty of millions of people as they will have no means of livelihood. The economic/socio cost of the flood is thus threatening.

- Disappointment, unemployment, destruction of properties is a fertile ground for any thing ranging form unrest and riots to disorder and chaos.
• The fertile land has been turned into sand dunes due to swirling water and it will take long time to remove the huge sand and make the land once again cultivable. A Lot of resources and machinery including the Bulldozers are required.
• Cattle lifting, Dacoty and other crimes are on the high side.
• The education infrastructure has been badly damaged and rebuilding of schools is a gigantic task. The issue of establishing temporary schools and sending the children to educational institution is a matter of concern not only for the govt, but for the parents as well.

Suggestions/ Learning
In this hour of calamity we have to wake up and remain awake. On the spot visit to flood affected areas and meeting with community members including the teachers, social workers, growers, traders, students, farmers and former women councilors in most affected 9 union council the Rapid Need Assessments (RNA) was conducted and it was found that the people are in dire need of food, shelter, clean drinking water, medicines/ health care and vaccination/ fodder for animals. It will not be out of place to mention here that 30% of the total cattle owners in the district are landless. The people hit and hurt by catastrophe are in need of help and no amount of aid is enough. They are looking towards an anchor of hope in the sea of miseries. Some of the suggestions made by the affectees are summarized as under.
• Food is a priority and sustainable food supply system is to be developed. A disaster on such large scale can hardly be expected to be surmounted in a short time. In Pakistan where the govt, are always looking and relying on foreign aid/ loans even for ordinary functions like security and justice such an expectation with out the help of international community is nothing short of crying for the moon
• A robust planning in terms of reconstruction of infrastructure and ravaged irrigation system is needed in order to turn this crisis into an opportunity. The restoration of infrastructure is of paramount importance as it is the main stay of country’s economy. It is often seen as indicator of socio/ economic position of a country. The bridges, roads etc serve as back bone for public services and are vital to sustains economic and social economy. This issue may be given priority over all other matters.
• The flood has razed the houses to ground and those houses which did not collapse in the beginning would cave in after a few days as the flood water has damaged their foundations to the core. The issue of shelter requires immediate attention of all concerned. A large number of tents are needed for the people as it will take six month to a year to build houses and till such time people need make shift shelter.
• The short term measures such as remittance of loans, utility bills etc and free supply of fertilizer, seeds, fodder are urgently required as immediate relief. The people of the district were already living beyond the line of poverty and there is apprehension of dramatic reversal in the figures due to flood.
• Immediate preventive and curative measures are required in the health sector. The distribution of Aqua Tablets, ORS, Sanitation Material and supply of cooler/ jerry cans of water, establishing static hospitals, mobile health teams are few measures which can help in improving the prevailing health scenario and controlling the apprehended water borne diseases.
• A realistic survey for determining the loss and damages be conducted by teams consisting of neutral persons including the members of civil society/ NGOs.
• The most affected union councils / areas where the water is still flowing are still out of reach and the Govt, nor civil society has been able to go there owing to lack of access. Much of the relief goods are being distributed in the areas other than those union councils and duplication has also been reported. Just, fair, equitable and transparent mechanisms are to be developed for distribution of relief goods in all areas of the district and a monitoring committee consisting of public / private sector be constituted to oversee the process.