

Pakistan: What worsened flood disaster?

Friday 10 September 2010, by [MEMON Naseer](#) (Date first published: 7 September 2010).

The devastation from floods could have been much less had certain practices of disaster-management been in place.

Rivers this year brought unprecedented disaster in all provinces of the country. From rickety civil infrastructure to shabby administrative web, everything has been washed away by the horrendous disaster. According to one estimate, half of the 367,000 people who lost their lives to natural disasters between 1986 and 1995, were victims of storms, river floods or flash floods. From 1998 to 2002, the world witnessed 683 flood disasters with 97 percent of these visitations occurred in Asia. The trend clearly indicates doomsday projections for the years to come and calls for a tectonic shift in current practices of disaster management in vogue in countries like Pakistan.

The Indus River that brought the major havoc in parts of Punjab and Sindh provinces is still tormenting human settlements. Its fury is set to catapult more during the leftover monsoon. Both natural and human factors triggered this devastation. According to Professor Martin Gibling of Dulhousie University, the Indus was even mightier during a warm period some 6,000 years ago. Then 4,000 years ago as the climate cooled, a large part of Indus dried up and deserts replaced the waterways.

The professor points finger towards localized warming phenomenon as responsible element for the disaster. In his opinion, monsoon intensity is somewhat sensitive to the surface temperature of the Indian Ocean. During times of cooler climate, less moisture is picked up from the ocean, the monsoon weakens and the Indus River flow is reduced. In this backdrop, climate change seems to be a major factor behind pathologically insane monsoon this year.

The dominant threat posed by climate change is increased degree of non-reliability of historic data, often making all estimates redundant. Khyber Pakhtunkhwa experienced a unique monsoon this time, which has hardly any precedent in the past. No analysis of historic data would have foreseen what was seen in the recent weeks. This episode is actually even more alarming than anything considered less or unexpected hitherto may happen any moment anywhere with greater severity than imagined.

Higher degree of weather unpredictability induced by climate change phenomenon is a real challenge for already fragile flood management systems in Pakistan. Extreme and unpredictable weathers are likely to make disasters a moving target, making it near impossible for flood managers to respond such disasters with given capacity.

Along with several responsible factors that made the disaster excruciating, inter alia the absence of localised early warning system, ineffective disaster management paraphernalia, virtually non-existent integrated flood management plan, and a system bereft of proactive planning to mitigate disaster impacts need to be delved deeper. The disaster has also denuded the capacity gaps of the agencies responsible for disaster management, particularly at provincial and district tiers.

While all provinces have faced devastation, a report of the Federal Flood Commission issued on 20th

August reckoned that Sindh province was the worst-hit as it shared 3.68 million among the 7.71 million flood affectees in the country. The number of Sindh house, 211,375, was highest among the total 303,698 houses battered. Likewise, Sindh shared 4,359 affected villages out of 11,027 and the crop land of 1.55 million acres out of total 4.70 million acres crop land was inundated by the sheet of water. The Sindh government's latest statements put the toll of affectees to over 7 million people. In all likelihood, these digits will swell and would paint more somber picture with every passing day.

The scale of disaster would have outdone the response in any case, yet the miseries could have been much less had certain practices of disaster management been in place. In Khyber Pakhtunkhwa, the Peshawar Met office could not transmit the timely warning of the predicted showers only because the fax machines in the DCO offices of Charsadda and Nowshera were not working properly. Likewise, the initial estimates of flood at Sukkur barrage were derided by the actual flows that made Sindh government manic, ultimately leading to enigmatic decision of breaching bunds, railway tracks and roads to ease off the barrage structures and certain strategic locations.

Shadowy decision-making process has sparked another controversy that may eventually snowball into a full blown conflict. A comprehensive management plan would have more precisely determined the potential sites for breaches to eschew major losses. However the media reports suggest that the murky decision were taken at the spur of the moment presumably influenced more by politics than any informed process or institutional mechanism.

The breaches in Tori and Ghouspur bands in Sindh actually triggered the worst disaster enveloping the vast areas in north Sindh and rendered several hundred thousand shelterless. As a result, districts of Kashmore, Jacobabad, Shikarpur and Qambar-Shahdad Kot are witnessing a worst human crisis in history. The worst part was inadequate evacuation notice and unavailability of transport which made migration intractably difficult. More than seven million people have lost their abodes, source of livelihood, and went through a traumatic experience.

Ignoring the very fact that a flow of 10 million cusecs would have spilled over any dam of the size of the proposed Kalabagh dam, a clamour was raised that it was mere absence of large dams that has caused this disaster. No engineering or flood management science would substantiate this argument. Sukkur, Guddu and Kotri barrages braced a flow of one million cusecs for nearly ten days. Any such dam would not have the capacity to absorb this flow. It would have rather made the very dam structure vulnerable to burst with seams and to potentially multiply this catastrophe manifold.

Coinciding with floods in Pakistan, China also faced the wrath of floods and at one stage hundreds of soldiers were deployed to prevent a likely disaster due to bursting of Wenquan reservoir that could have inundated Golmud city of more than 200,000 population under four meter deep water wave. In this very year, the north-east of Brazil, known for droughts, witnessed a devastating flood, killing 50 people and leaving 150,000 homeless. The devastation has mainly been caused by bursting of dams on two rivers. In March 2009, a dam bursting near Jakarta killed scores of people. Series of dams and barrages have led to excessive siltation in the river bed, thus elevating the surge to dangerous levels.

Human settlement pattern has been another cause of large-scale displacement. Mass exodus from the flood plains has transpired the very fact that unregulated human settlements have made the scenario further bleak. Rampant damming and diversion during the past few decades has changed the flood regime entirely and vast tracts previously part of flood plains were exposed as dry land encouraged new settlements.

Before Tarbela dam, katcha area of Sindh received a flood of 300,000 cusec almost every year and a flood of 500,000 cusecs for 77 percent of years. Tarbela and other barrages completely altered flood

pattern, leaving large parts of flood plain barren and thus paved the way for dense human settlements in the strips flanking the river course. According to a report, some 50,000 acres of katcha area is under settlements. The decades-long absence of planning of rural areas and skewed development patterns forced marginalised rural communities to recourse to development along the river course. Dwellers of such areas were noticeably more resistant to evacuation as their asset base was tied to the flood plains.

Unbridled deforestation, partly due to lack of regular flood flows and partly due to avaricious elements in politics and bureaucracy, also increased the flood impact. There is an impending social disaster if rehabilitation and reconstruction phase is not designed and executed with transparency and participation of various segments of society. Avoiding such disasters in future needs a long-term planning along with a committed and competent execution mechanism.

By Naseer Memon

P.S.

* Source: The News.

* Naseer Memon is an environmentalist and currently Chief Executive of one of the largest rights-based NGO of Pakistan, Strengthening Participatory Organization-SPO.