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Flood and Displacement in Rural Sindh: People´s Perception

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Abstract

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Throughout the history floods have caused major damages to the mankind not only in terms of human life, but also complete loss of livelihoods and destruction of infrastructure. According to Munich Re (Kron, 2003., Shen, 2010) one third of all reported damages and one third of all economic loss is flood related. Numerous studies reveal that disasters are not only outcome of natural hazards but also of socio-economic structures and political processes that make individual and families vulnerable (Lebel et al.,2006, Wisner et al., 2004, Dixit, 2003).

One has to be careful associating these catastrophic events solely with climate change, however, the findings of the IPCC (2007) report and recent studies underline the observed environmental change with regard to changing rainfall patterns and frequency of floods in Pakistan. The IPCC (2007) report underlines the observed past and present climate trends and variability in Pakistan. With regard to precipitation, an increase in summer and winter precipitation over the last 40 years in northern Pakistan is stated as one of the key trends. In addition a decrease of precipitation by 10-15% in coastal and arid regions was observed. The observed water stress in Pakistan, which is associated with population growth and inefficient water use, is further deteriorated through climate change. Wetlands and ecosystems in Pakistan are increasingly threatened by decreasing precipitation and droughts (Cruz, et al., 2007).

Moreover, recent studies with regard to the occurrence of rainfall variability, extreme weather events and decreasing crop yields also underpin the evidence for the impacts of climatic changes in Pakistan. Projections with climate models indicate that extreme weather events like drought and flooding will become more frequent and of greater magnitude in different parts of Pakistan. It is expected that extreme events would further stress existing infrastructure and institutions. Agricultural production is expected to suffer from high temperatures, droughts, floods and soil degradation. In addition, more intense tropical cyclones and sea-

level rise could put risk on livelihoods in coastal low-lying areas and cyclone-prone regions. Furthermore, fresh water resources are vulnerable to the negative effects of climatic change in Pakistan (Farooqi, Khan, & Mir, 2005).

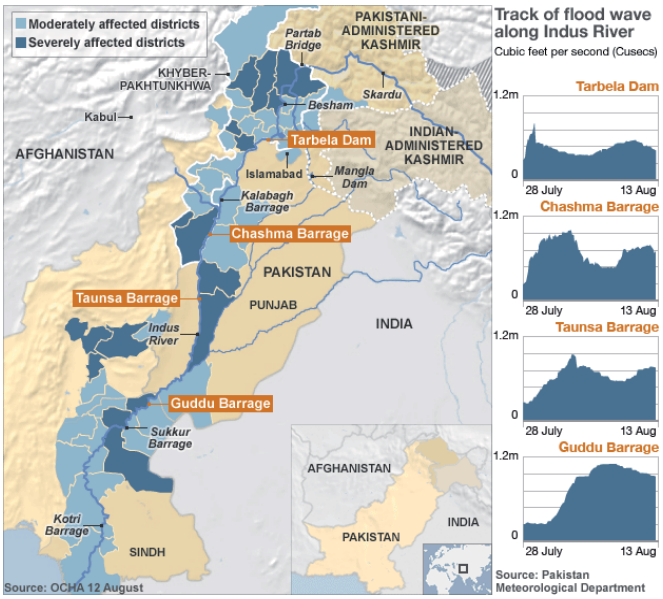
Precipitation towards the end of the century for the northwestern Himalayan Mountains and upper Indus plains of Pakistan was modeled with a regional climate model PRECIS in a recent study. Model results suggest that under the A2 and B2 scenarios overall precipitation will decrease during winter and notably increase during spring and monsoon, compared to the baseline period from 1960 to 1990. During Monsoon, the results suggest increasing precipitation for the southern Himalayan regions, whereas the northern Himalayan areas and southern plains will suffer from decreasing precipitation (Ashiq, Zhao, Ni, & Akhtar, 2010).

While it is expected that the overall precipitation during monsoon in South Asia increases remarkably, the diverse precipitation pattern likely leads to more frequent floods during monsoon seasons. In addition to that, Pakistan will suffer from less rainfall during the dry season (Hussain, Spöck, Pilz, & Yu, 2010). Moreover, the human dimension of climate change is cause of concern. Regarding climate extremes and migration, the IPCC (2007) stresses that the impacts on natural resources will negatively affect food availability and livelihoods leading. Climate Change is now increasingly recognized as contributing to vulnerabilities that can generate migration (Warner et al., 2009). It is concerning that environmental scarcity in turn can lead conflicts and through that to displacement of people and changing migration patterns (Barnett, 2003).

Climate-induced movements are expected for the coming decades in Pakistan due to extreme weather events and worsening environmental conditions leading to land degradation, shortfalls in food production and poverty. In addition, a population growth of 200 million people is expected, which will further put stress on scarce environmental resources (Cruz, et al., 2007). The most recent flood events in Pakistan are rated as the greatest humanitarian crisis in 2010 resulting in huge displacement of people from flood affected areas of rural setup to the urban areas where assistance, income opportunities and infrastructure were

perceived to be readily available. Although the estimated numbers have to be regarded cautiously, it is estimated that around 2,000 people lost their lives and many were displaced by the floods. The 2010 flood has affected an area of 10.518 million acres Moreover, the flood has disproportionately affected the poorest regions of Pakistan, southern Punjab and rural Sindh where deprivation levels are high and the infrastructure is poor(G.M. Arif at el.,2010). Also see Figure 1.

Figure 1: Affected districts and track of flood wave along Indus River



Source: BBC, http://news.bbcimg.co.uk/media/images/48729000/gif/_48729850_pakistan_indus_flow_624.gif).

The potential of large scale internal displacement of population in Pakistan especially from areas around the Indus river- underscores the urgency of research on environmental migration for generating knowledge to better prepare the population. Disasters do not directly increase international migration in Pakistan, but certainly have increased internal rural-urban migration and displacement.

Environmental migration means the migration of the persons due to sudden or gradual changes in the environment (Biermann & Boas 2010). Unlike migration due to gradual-onset events, sudden disasters cause "distress migration" in which affected populations temporarily evacuate to escape from immediate harm (Hunter 2005, Raleigh et al.2008). The most probable impact in such situation is ….."highly unequal processes of resettlement"(Fussell & Elliott 2009). In this paper, "distress migration/displacement " is more relevant to the situation.

"We had never thought of leaving our area but the floods forced us to leave our homes." Abdul Rashid, Farmer, Mirpur Sindh, refugee in Mithri Flood Relief Camp, Hyderabad, Sindh,(Field notes ,September 2010)

In literature, Hugo (1996) placed environmental migration as a subset of forced migration because changes in the resources base compel people to move and sudden disasters force immediate distress migration. IOM proposed definition of environmental migration as: "persons or group of persons who , for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions , are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad" (IOM, 2007).Environmental Migrations is consider a social phenomena, like Lueck (2011) argued that environmental migration is a social phenomena in which environmental changes are filtered through social structures to force the most vulnerable populations to permanently migrate and once displaced, these populations face numerous barriers to becoming resilient.

The most recent flood events in Pakistan are rated as the greatest humanitarian crisis in 2010 resulting in huge displacement of people from flood affected areas of rural setup to the urban areas where assistance, income opportunities and infrastructure were perceived to be readily available. During that when on one hand it was a difficult decision whether to move or not to move due to the limited means of communication, on the other hand elite and powerful landlords having access to information and resources diverted the flood water into fields

and the unprotected areas destroying crops and livelihoods of most vulnerable population. The United Nations General Assembly argues that nations should: "Develop and implement domestic legislation and policies dealing with all stages of displacement, including through the identification of a national focal point within the government for issues of internal displacement, and through the allocation of budget resources" (Kalin, 2008)

Flood and displacement in Pakistan left certain rural populations more vulnerable to disaster than others. The impacts were more visible during the onset of the disaster yet not a surprise. The social structures and historic patterns in the remote rural areas are the detrimental factors in people´s response to the disaster. The affected rural communities were fully dependent on the state help not only for making decisions about their move but also for information about the exact intensity of the disaster. The relief activities and disaster response mechanism due to their centralized nature were not enough equipped to reach large number of displaced population. For a long time, the disaster response agencies including local government were waiting for the funds and the goods to be released. The main constraints among others were the loss of social network and social structure normally rural population rely on in time of no disaster. With the "distress migration/displacement", these traditional social systems were interrupted and rural communities were bound to rely on non -traditional mode of communication and networking making them more vulnerable to disaster.

This paper/presentation is based on interviews and discussions with the flood affected families who migrated from the remote villages of Sindh and got shelter in Flood Relief Camps near Hyderabad and Karachi in the Sindh Province of Pakistan. Here, communication is seen as an integral part of decision making in which participation is essential (Shen, 2010). This short research study was academically supported by Environmental Migration, Social Vulnerability and Adaptation section of United Nation University, Institute for Environment and Human security by providing inputs for questionnaire whereas date collection and interviews were done from September until November 2010 with the help of students of Social and Media Sciences, Zulifiqar Ali Bhutto Institute of Science

and Technology, Karachi Pakistan beside the principle author. However, it is important to mention that this piece of work was done to get the on-spot impression of the people and is not based on in-depth empirical field research. The main purpose of the study was to highlight the information gathered during the disaster onset based on direct interactions with the displaced people in the relief camp of rural Sindh, Pakistan. The objective was to help understand dynamics of environmental migrations in the area and to further emphasize the need for more climate change based research in Pakistan.

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