

Floods, river Indus and the local livestock breeds in Pakistan

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Background

Beginning in July 2010, heavy monsoon rains caused the most severe flooding in Pakistan's history. Flash and riverine floods have affected more than 20 million people and 13000 villages, with at least 1600 dead and 90000 homes destroyed. The damage thus far appears most severe in Khyber Pakhtunkhwa, which received many times the province's annual average rainfall in less than one week. The heavy rains in Pakhtunkhwa and the adjoining areas of northeastern Afghanistan cause grave flooding in the river Indus. The Indus River continued to rise, however, as it travelled southward, flooding at least eight districts in Punjab and thousands of communities along the Indus River in Sindh and Balochistan provinces. The flood water is out of control and still continues to sweep the southwest of the country. The flood water is now knocking at the door of the historic and metropolis city of Hyderabad.

River Indus had been playing the role of life line in the socioeconomic and socio-cultural life of the people living on both side of it. The Indus had been worshiping by those people since unknown time. The people still have many religious and cultural believes with the Indus. The river had been passing in a determined way and accumulates its excess water in the small lakes and ponds on its banks. In the adjoining areas of the river, there are historical cities and the croplands of the country. Unfortunately Pakistan lost all those precious assets. The main causes of the floods are erratic rains, pattern change in rainfall, deforestation in the northern forests zone, encroachment in the pathway of the river Indus etc. The causes of the floods will be discussed in the following paragraphs.

Climate change

Change in rain pattern and flood in river Kabul during monsoon is a new phenomenon. Enormous water in Indus, both because of erratic rains and the speedy melt of the snow in Himalaya caused flooding in the river. For the current floods, rainfall of about 400 millimeters (16 inches) in mountainous areas in the far north of Pakistan and adjoining parts of Afghanistan between July 28 and 29 triggered a torrent of water down the Indus and Kabul Rivers. The only explanation can be the link to climate change. Because that area very rarely receives monsoon rains," the risk of the monsoon belt shifting as well as changes in the intensity of the monsoon. The Tibetan Plateau (TP) 'Roof of the World' exerts profound influences not only on the Asian monsoon large scale circulation through its dynamical and thermal forcing, but also on the water cycle of the entire Asian continent. The TP could be appropriately called the 'Water Tower of Asia'. In recent years, there has been growing evidence of increased warming, accompanied by early snow melt, and retreat of high mountain glaciers in the Himalayas and the TP regions (and many others). Particularly in the western and central Himalayas, the rate of retreat has been increasing in recent decades. Already glacier melt has led to soil erosion, bursting of glacier

lakes, with devastating floods in Himalaya countries. The eroded soil also caused in the decreasing the depth of the river bed.

Land grabbing and land use

Not an old story, even very recently the chief minister of Sindh decided to hand over land along the banks of River Indus to Board of Revenue would facilitate influential landlords to grab it in the name of landless women and fill in their coffers after disposing of the same to multinational companies. This is besides the environmental degradation it would cause, in sheer violation. It argued that Pakistan was required to increase forestry as per the international agreements but it was destroying even the land reserved by nature for forests and violating the Forest Act 1927, the National Conservation Strategy 1992 and the National Environment Policy 2005. The government's decision to hand over forest land to their favorites and convert kutchha areas (wet lands) into fiefdoms of landlords would inflict double damage by obliterating survival of millions of people and destructing the environment. Such areas are the homelands of pastoral communities. The pastoral communities are the custodians of the precious animal genetic resources of the country.

During the last long drought when some lakes were dried the influential land mafia grabbed the lands (lakes and ponds). They leveled it, converted those waste lands in croplands. The lakes, ponds and the banks were the niche of precious flora and fauna biodiversity. The banks of the river, lakes and ponds had been using for livestock grazing by the indigenous livestock keepers since ancient time. Those grazing lands were the cradle of many precious livestock species especially buffalo and cattle. The banks of river, lakes and ponds were inhibited by dense forest mostly of wetland species. Such species of plants have high water absorption ability. This sad state of situation cause a phenomenon like arteriosclerosis in human being, the river flow was disturbed, squeezed and the river then broken its banks and swap the centuries old civilization of the people. Such a bad practice not only squeezed the flowing way of the river also acted as accumulating pesticides and chemical fertilizer in the water of the Indus.

Another dilemma is the leasing of the Indus basin and other grazing lands to the "land colonists" (mostly from the rich Arab states). Million of hectare of land is either already leased and hand over or in process. From such lands mostly the forest and wild plants are removed and the livestock keepers are banned to inter in the area for grazing. Deforestation caused soil erosion and the basin of the river is filled with the silt, resulted in the narrowing of the flow vein of the river.

Deforestation and timber mafia

The timber mafia is very active in the northern moist forests of the country. The deforestation caused soil erosion and land sliding, resulted in the destruction of the infrastructure in the north. Littoral and Swamp forests of the south of the country are vanished for the construction (like in Karachi and Hyderabad) and farming purposes in the adjoining areas of Sindh and Balochistan provinces. Also deforestation for lands grabbing is continue in the Thar and Cholistan deserts (part of the Great Indian Desert). A lot of precious biodiversity of flora is removed from those deserted lands. The tropical and sub-tropical thorny forests of the central Pakistan are removed by the land grabbers for agriculture. Also the wood of those forests are sold for fuel purposes. In

all the affected areas of the deforestation and land grabbing the most worst affected communities are the livestock keepers and the landless farmers.



Fig. Deforestation in Sindh

Losses of the floods

The floods have affected the most densely populated livestock areas in Pakistan. Livestock make up about half of agricultural GDP. “Livestock in this country are the poor people’s mobile automated teller machines (ATM),” Thousands of landless livestock keepers faced havoc losses because of the floods. Landless farmers are either keep their livestock in the cropland areas and graze it in the crop aftermath and the fellow lands. Some landless farmers keep their livestock in peri-urban areas; they are commercial farmers and supply milk to the urban dwellers. Those livestock keepers usually keep 3-5 buffalo and 1-2 cattle. Such farmers saved their buffalo, because buffalo is good to cope with the flood situation. She can swim and survive but need feed and water. In the present situation there is no food even for the human being. Buffalo is facing sever hunger which is another threat to the life of the animal. Also the stressful condition prone it to many infections. Many animals died because people had to leave them behind when they were rescued by the Pakistan military and other rescue services. “You can put chickens, goats and sheep in the boat and take them with you but you can’t take a buffalo or a cow,”



Fig Balochi sheep breed

Millions of livestock have been affected by the floods in Pakistan and are badly in need of food and medicine, Food and Agriculture Organization (FAO) of the United Nations said. Around 200,000 cows, sheep, buffaloes, goats and donkeys have already been confirmed as dead or missing but the final numbers will be much higher, possibly into millions. If you count poultry losses, then millions of animals have already died with the entire poultry stock wiped out in some areas.



Fig. Berberi goat

Women in the life line of Pakistan, keeps 1-2 goats, 1 buffalo or cow and many more chicken. In most of the cases the women has no land. The animals are the only property of those rural women. They lost those animals. Hundreds of thousands of livestock cared for primarily by women and kept for milk, meat and draught power have died in the floods. Livestock deaths are a crippling loss for poor women as the cost to replace them is equivalent to years of earnings.

Pastoral people are the badly affected people in general and specially in the flooding situation. Everywhere they were deprived of their rights. The lands grabbed by the lords and foreign investors were primarily used by the pastoral people since unknown times. Their livestock is comprised of indigenous livestock breeds of chicken, sheep, goat, donkey, cattle, buffalo and camel. Their animals are well adapted to the climatic extremes and can cope the situations, like flood etc. The river banks, lakes, ponds, waste lands, wetlands and forestlands are judiciously used by the pastoral people. Their system of livestock keeping is environment friendly and in synergy with the local environment. They seldom use pesticides and other chemical to harm the aquaculture of the river and the sea. The dung and urine of their livestock is the food of the water life (fisheries etc) and also works as organic manure for the flora of the region.



Fig. The famous game bird Aseel

Species wise, the most affected animal was poultry chicken, especially the commercial farms. The second most was the exotic cattle. She could not swim, she need more and clean water, and she needs more feed and health care, especially in the flood condition. This phenomenon is a good listen for the multinational company like Nestle, who promote exotic cow culture to replace well adapted black gold river buffalo of sub-continent. There was a win-win situation for sheep and goat. They were easy to take by flood water and easy to take in the boat.



Fig. Buffalo walking in the flood water to move to uplands.



Fig. Local cattle are trying to escape from the tide of water.

The livestock breeds affected in the flood are vary, e.g. sheep, goat, cattle, buffalo and chicken. The most affected livestock breeds are Damani and Balochi sheep; Berberi goat, Rojhan, Cholistani, Redsindhi and Bhagnarri cattle; Neli Ravi and Kundi buffalo.

Needs of the affected people

Millions of surviving animals are now facing severe feed shortages and health threats. They need feed and medicine. In good times people build up their herds and in bad times they sell livestock to generate cash. Every animal we save is a productive asset that poor families can use to rebuild their lives when the floods finally pass. The main priority and challenge is to get feed to those animals that have survived as much of the country's traditional animal feed straw and forage has

been lost in the floods. For buffalo and cattle, it is essential to enable the herds to rebuild quickly during the next breeding season. It is also imperative to get medicines to animals that have fallen weak or sick because of the disaster.

There is also need of restocking, especially the women livestock keepers. A set of goat or sheep and poultry can be the best solution to re-strengthen those flood affected women.