

Floods In Pakistan: Weath Of Nature @ Mismanagement Of Government

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4. Floods are wrath of Nature

4.1 Frequent flooding due to excessive volume of melt-out water.

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An American author, Rebecca Solnit says,

"There are disasters that are entirely manmade, but none that are entirely natural"

The above words of the author syncs with Pakistan's situation, whether it be wrath of nature or climate change, it presents as disastrous for Pakistan. Climate change globally, along with negligence of individuals, exploitative policies of government, short-sighted modernization agendas at the cost of environmental degradation have exposed Pakistan to more frequent massive floods. Whether it be floods of 2010 or recent floods of 2022, they brought massive destruction of lives, livestock, infrastructure and economy of Pakistan. Floods in Pakistan are mainly due to mismanagement of government than wrath of nature. Climate change has happened globally. Had floods only happening due to climate change then they all countries would have been facing floods after monsoon. There is illegal occupation of floodplains by land grabbers under the influential people, diversion of natural course of water to more

populated areas and massive deforestation in evergreen forest are significant factors for frequent and massive floods. Intentional breaches in levee to allow huge volume of water flow away from politically and strategically important locations towards more populated backward areas causes loss of thousands of lives and destruction of large areas of agricultural land. Disaster management regime in Pakistan is flawed and ineffective with lack of institutionalization, inclusive approach, integration and sustainable efforts in already resource constrained environment. However, excessive melting of glaciers and heavy monsoon every year also ~~are~~ ~~of~~ the major factors causes of floods overshadowing role of wrath of nature. Floods can be controlled or at least its scale of destruction can be mitigated through pragmatic policies with more focus on climate resiliency, construction of dams, taking initiatives for risk reduction like Ten billion tree tsunami and construction of climate smart cities. In addition to these measures, national disaster management authorities should take proactive approach rather than reactive to mitigate the devastations in post-disaster phase.

Pakistan is subject to more flooding. It is more prone to disasters due to its geographical location, high dependence on agriculture and water resources, low adaptive capacity of its people, and weak system of emergency preparedness. The driving forces for more frequent and apocalyptic floods are intense heatwaves, droughts, heavy monsoons, excessive melting of glaciers causing excessive ^{over} flow of water. According to world resource institutions report Pakistan is among top 15 countries most severely exposed to risks of floods. To worsen the situation, there is no construction of small and large dams and systemic mismanagement by the government turns floods into disasters.

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Firstly, the major cause of flood in Pakistan is illegal occupation of floodplains by landgrabbers who work under influence of feudals, landlords and politicians. Floodplains are important for reduction of flood intensity because they are capable of absorbing floods. However, landgrabbers have illegally occupied these vast inlands. They have constructed roads ~~at~~ and they use these lands for

agricultural purpose and housing lands. Resultantly, the scale of floods increases. These alterations have diverted the natural course of water. Instead of flowing towards floodplains, they divert this water to the more populated backward areas, & villages causing disruption of lives of millions of people, thousands of casualties, killing of livestock, destruction of infrastructure, roads, and bridges etc. It happens in provinces of Sindh and Punjab where feudal system is still dominant, proving to be main cause of flash floods.

Secondly, massive deforestation in watersheds is main cause of frequent floods. **Lands covered by forests have shrunken from 33% during independence to 3-4% today.** This is due to immense deforestation by locals and timber mafias under the influence of politicians and forest officers. Forest along the rivers help against floods by reducing soil erosion and decreasing amount of run off water. Along with acting as a shield against floods, forests reduce pollutions and global warming. They have positive impact on climate, ~~help~~ help reduce temperature.

of the environment. However, like other forest reserves forests have also been eliminated with rate of almost 5500 acres per year. They have augmented rate of flood water and intensity of floods. Hence, floods in Pakistan are due to mismanagement of government that is unable to control and hold accountable major mafias for immense deforestation.

Thirdly, India plays a major role in controlling water from Indus river towards Pakistan. After During independence, Indus water treaty was signed between Pakistan and India for distribution of water. India is our consistent rival that has always proved detrimental for Pakistan. Likewise, India has constructed many dams and controlled units for flow of water towards Pakistan. It ~~releases~~ ~~may~~ overflows water intentionally to cause destruction of agricultural crops and reduce productivity of Pakistani crops to ensure instability of economy. Sudden uncontrolled release of torrential water causes nothing but only floods. The construction of water manipulated structures and

controlled release of water is a sheer breach in Indus water treaty. Yet, Pakistan pays a high price for trans-border terrorism of water in the shape of massive floods and droughts.

In addition to trans-boundary water terrorism, another cause of floods due to government mismanagement is ^{levee} breach that is intentionally created ~~to~~ ~~leeee~~ to divert water from strategically important areas towards more populated areas. Levee are the embankments to protect stream overflow. However, politicians, elites and landlords of the state being intentional breach in levee for controlled flow of water away from their agricultural lands, crops, housing lands. They divert huge volume of flood water towards backwards areas ~~is~~ especially in Sindh and Punjab province. So, these intense floods prove fatal for thousands of lives. This multiplies the destruction caused by floods with little or no warning in ~~po~~ marginalized areas impacting lives of millions of people. ~~Da~~ This huge loss happens due to mismanagement of government and ineffective policies of

government bodies, not merely due to wrath of nature.

Further, disaster mismanagement and ineffective policies of the government compounds the destruction caused due to environmental degradation and ~~fixed~~ ~~na~~ climate fickleness. There is lack of institutionalization and inclusive, and coherent approach. The disaster management, development planning and environmental management work in isolation. They have lack of coordination and integration which reduces ^{their} efficiency and ^{adaptive} capability. In addition to this, there is lack of training and skilled workforce required to work with efficiency in emergency situation. In floods of 2010 and 2022, it was observed that Pakistan army was called to provide relief and rehabilitation effort and supply ^{education} to the affected individuals. However, still disastrous floods of 2010 and 2022 have not cautioned the government to work on pragmatic policies. It should focus more on human development ~~para~~ paradigm.

People living in vulnerable areas should be trained to cope up with such disasters so that losses are reduced. In addition to this, disaster management regime has visible bad governance. They focus on rescue and relief operations after flooding. Rehabilitation facilities are provided to the refugees. There is complete lack of proactive approach and disaster management regime works with reactive policies which is a major cause of immense destruction. Floods of 2002 resulted in economic loss of almost \$33 billion dollars and impacted lives of ~~30~~ million people. Several crops, roads, bridges, houses were damaged. However, they could have been avoided or at least mitigated if government has taken proactive approach in risk assessment and disaster management regime. Fiscal mismanagement along with resource constraints increases impacts of disastrous floods. These all factors highlight the fact that frequent and intense floods in Pakistan are mainly due to mismanagement of government.

On the other side, there is also role of wrath of nature for floods in Pakistan. Higher rates of glacial melting is one of the most important causes of flooding in Pakistan. Himalayan glacial melting is an important source of water in the Indus river system. ~~Due to~~ However, due to climate change and rise of global temperature, melting of glaciers has increased and huge volume of required water is lost. On the other hand, over-flow of water has become significant cause of flooding almost every year of Pakistan had constructed dams, water reservoirs and levees, the damages due to excessive water flow and heavy rains could have been averted.

According to Engineering services Pakistan report 2018, Pakistan has capability to build 750 dams for management of water. But unfortunately, Pakistan has build only 450 small and large dams and it depends mainly on Tarbela and mangla dam. The countries such as India and Bangladesh

have constructed enough dams to effectively deal with issue of water management. So, the overflow of water due to excessive glacial melting could have been controlled if management of government was efficient. Therefore, frequent floods in Pakistan are due to flawed disaster management regime.

Lastly, Pakistan is facing heavy monsoon every year which has raised concerns. The average rainfall in Sindh and Balochistan is increased by 400%. Normally, water carried by monsoon rain feeds rivers and irrigate croplands. But heavy rainfalls have caused flooding in rivers. Now, these rains cause floods every year. To worsen the situation, government has done nothing to adequately deal with harms caused by torrential floods. The tangible efforts by the government can reduce the impacts of floods. This highlights negligence by disaster management regime.

The impacts of natural disasters can be effectively reduced if government of Pakistan take some efficient steps. Firstly, the disaster management authority (NDMA) should be reformed with enhanced integration with development planning ~~and~~ sector. There should be proper training of workforce as well as people dwelling in vulnerable areas to cope up with emergency situations. Risk reduction initiatives should be taken ~~at~~ such as ten billion tree tsunami and government should focus on policy implementation and completion not merely formulation and documentation. The adaptive capability of the institution should be increased and more focus should be on human resource development. Disaster management authority needs to take proactive approach instead of reactive approach so that devastations caused by flood could be eliminated or ~~at~~ atleast mitigated. Efficient management with accountability and transparency can help

reduce immense loss caused by devastating floods.

In a nutshell, climate change is biggest offender of current century. In case of Pakistan, it has been a destroyer. Massive flooding, intense heatwaves, heavy monsoons, droughts, unprecedented rainfall have become very common due to global climate change. Pakistan is vulnerable to disasters and climate hazards. It is among top 10 countries which are exposed to disasters risks. The criminal neglect of government and doormanly of institutions have worsened the situation. Floods of 2010 and 2022 proved disastrous but unfortunately, government has still not become cautious in this segment. Advance spending in climate adaptation, resilience and early warning signs can help avoid losses and damages amounting to atleast 10 times the investments, according to world resource institute study, 2024. At this time, ~~the~~ government has no option other than investing in climate change adaptation and take resilient and proactive approach to reduce further destruction.