

Disaster Management in Pakistan: Challenges and Way Forward

Outline:

A- Introduction

1- Definition and significance of disaster management

2- Pakistan vulnerability to natural and human-induced disasters

B- Major Disasters in Pakistan's History

1- 2005 Earthquake

2- 2010 Super Floods

3- 2022 devastating Floods

4- Droughts, heatwave and landslides

COVID-19 Pandemic

C- Challenges in Disaster Management

1- Lack of early warning system

2- poor coordination among institutions

3- Inadequate funding and resources

4- Limited public awareness and community participation

5- Political instability and corruption

6- poor post-disaster rehabilitation and planning

D- Way forward

- 1- Strengthening institutional capacity and coordination
- 2- Investment in early warning systems and technology
- 3- public awareness and community-based disaster management
- 4- Integration of disaster risk reduction into national planning
- 5- Climate adaption and environmental protection
- 6- International cooperation and donor engagement.

E- Conclusion

Thesis restatement

The Essay

Disaster management refers to the systematic efforts by a state, civil society and institution to prevent, mitigate, prepare for, respond to, and recover from disaster. In the context of Islamic Republic^{of} Pakistan,

disaster management assumes special significance due to the country's high vulnerability: geographically, climatically, and socially. As one analysis notes, "What's causing Pakistan's deadly Floods?" is intimately tied to anthropogenic factors and climate change. Pakistan faces natural hazards such as monsoon, floods, glacial lake outburst floods (GLOFs), earthquakes, landslides, heat-waves, droughts, alongside technological disaster, urban flooding, and human-induced risks. The effectiveness of disaster management in Pakistan determines not only lives but also development sustained, infrastructure protected, and vulnerabilities reduced.

Pakistan has witnessed several catastrophic disasters. The 2005 earthquake in northern areas killed over 73000 people and displaced millions. The 2010 floods, one of the worst in history, affected nearly

20 million people and submerged one-fifth of the country. Recently, the 2022 floods caused unprecedented damage submerging one-tenth third of Pakistan, displacing 33 million people, and inflicting over 30 billion dollars in economic losses. In addition, recurring droughts in Balochistan and Sindh, heatwaves in Karachi, landslides in Gilgit-Baltistan, and the COVID-19 pandemic further exposed the country's weak disaster management system.

In 2025 Pakistan is confronting one of its more severe monsoon and flood emergencies. As of early September, the National Disaster Management Authority (NDMA) reported a death toll of 881 and more than 9,206 houses damaged across the country. The floods have affected millions; in Pakistan Punjab alone, one report noted that "more than 4,500 villages have been submerged, affecting more

than 4.4 million people in the Province" since last August. In eastern Punjab, almost 1.2 million affected in one incident. Beyond the numbers, disaster is multi-dimensional.

Despite the institutional architecture, a number of persistent challenges undermine effective disaster management in Pakistan. These can be grouped.

Although meteorological forecasts and warning systems exist, they often fail in translation in local action. For example, in remote hilly districts the communication of warnings may be delayed or not reach vulnerable communities. As noted: "coordination and communication gap between individuals, Provincial and district level disaster management authorities, remote areas alerts do not effectively trickle down." Grass root awareness, household evacuation plans, risk knowledge in vulnerable communities remain low. The organization HANDS

Welfare Foundation highlights "Lack of awareness about disaster management, risk reduction at the grassroots level." as a major issue.

The disaster management structure spans federal (NDMA), provincial (PDMAs), district/taluka administration; however, coordination between them is weak. For example: "Survey points out govt's failure to improve disaster risk management, state bureaucracy frustrated every attempt to establish disaster management structures at the local or community level." Many districts still lack trained personnel, equipment, logistic capacity, rescue stock. Institutional staffing remains weak in many remote districts. Disaster management often remains reactive; budget allocations for DRR (Disaster Risk Reduction) are limited; enforcement of building codes, land-use zoning suffers due to lack of funds and political will.

A major obstacle in Pakistan's

disaster management is inadequate funding and resources. The institutions responsible for disaster management face severe financial, technical and human limitation. Due to inadequate funding, these organizations often lack modern equipment, efficient communication systems, and proper emergency shelters. The absence of advanced technologies like satellite monitoring and GIS-based risk mapping weakens early warning mechanisms and real-time coordination during disaster. Financial dependence on international donors during crises highlights the country's limited self-sufficiency. Consequently, Pakistan's disaster management remains reactive rather than preventive, causing avoidable loss of life, infrastructure, and livelihood.

Furthermore, limited public awareness is one of the most persistent challenges in Pakistan's disaster management system. A large portion of

the population, especially, in rural and underdeveloped areas, remains unaware of disaster preparedness measures, evacuation plans or first aid practices. This lack of awareness leads to panic, confusion, and poor decision-making during emergencies. The education system gives little emphasis to risk disaster (DRR), and public campaigns on disaster safety are rare or ineffective. Consequently, communities depend entirely on the government for rescue and relief rather than adopting preventive measures. Furthermore, the absence of community-based disaster management programs prevents citizens from playing an active role in resilience building. In many cases, people settle in flood-prone areas or construct unsafe houses due to ignorance of hazard risk. Therefore, the management system faces difficulties during disaster management.

Moving forward, Political instability

and corruption severely undermine effective disaster management in Pakistan. Frequent changes in government, shifting priorities, and lack of continuity in policies hinder long-term disaster preparedness programs. Institutional reforms often stall due to political interference, while coordination among federal, provincial, and local agencies suffers from bureaucratic rivalries. Corruption compounds the problem. Funds allocated for disaster relief, rehabilitation, and infrastructure are often misused or diverted. The misuse of relief goods and the politicization of aid distribution during crises erode public trust in government institutions. Weak governance also delays timely decision-making and resource mobilization during emergencies, worsening the impact of disaster.

In addition, poor post-disaster rehabilitation and planning remain major weaknesses in Pakistan's disaster

management framework. After every calamity whether the 2005 earthquake, 2010 or 2022 floods and the devastating flood of 2025, the focus largely remains on emergency relief rather than long-term recovery. Temporary shelters, ad-hoc compensation, and uneven aid distribution often leave victims in prolonged sufferings. Likewise, In 2025 September floods, many people like ~~the~~ Tiktoker, Waqar Bhinder, ~~Cricketer~~ cricketer Ahmad Shehzad, and Assistant Commissioner Achil Riaz Gondal worked for the emergency relief in many flood affected places. But this relief was temporary. Moreover, the rehabilitation process seldom incorporates future risk reduction measures, causing the same communities to be affected repeatedly. Rehabilitation programs also failed to address psychological trauma, livelihood restoration, and social reintegration of displaced persons. As result, affected

populations remain dependent on external aid rather than achieving resilience.

Given the foregoing challenges, a multi-dimensional way forward is required.

Strengthening institutional capacity and coordination is necessary. Develop a National Disaster Management Strategy that clearly defines roles of NADMA, PDMA, district authorities, private sector and NGOs. Often disaster - frontline lies at district taluka level; ensure adequate staffing, budget, equipment and trainings. Establishment of contingency funds, disaster-response funds, with transparency and accountability.

secondly, invest in satellite-based remote sensing, glacial lake monitoring, flood modeling, urban flood mapping. The FRP modelling, urban flood mapping document recommended "strengthened early warning system"

and improved forecasting capabilities. Warnings must reach local communities via multiple channels. They must be accompanied by clear action plans like evacuation, routes, shelters, livestock relocation etc. Use of school media, community programmes to build a culture of preparedness. Teach children about hazards, household plans, and safe behavior.

Thirdly, Every major infrastructure, housing, agriculture and urban planning projects must incorporate risk management and adaptation measures. Prohibit settlement in high hazard zones, regulate informal housing, ensure flood-defences, check embankment encroachment.

For the climate adaption and environmental protection, invest in reforestation, watershed management, glacier-lake hazard mitigation, river bank protection and sediment management. Encourage flood insurance, climate risk Funds, disaster-risk transfer for

governments and communities. The FRP document lists "risk-financing mechanism" as key. With cities growing rapidly, urban disaster risk management (storm drainage, flood zoning, resilient infrastructure) must be prioritised.

Lastly, International cooperation and donor engagement for cross-border hazards is important. For river-basin flooding (indus basin), glacial lake outburst lakes, upstream and downstream coordination is ~~nessee~~ essential. Use drones for remote assessment, and blockchain for relief-fund tracking. Joint drills, regional early warning systems, capacity sharing with neighbouring countries promote regional warnings. The frequency and intensity of hazards are increasing; this require long-term commitment rather than ad-hoc responses.

In summation, disaster management in Pakistan stands at a crucial

crossroads, demanding urgent reform and sustained commitment. Despite frequent calamities from earthquakes and floods to droughts and pandemics the country's response largely remains reactive rather than preventive. Weak institutions, limited resources, lack of public awareness, and political instability continue to obstruct progress toward a resilient framework. However, disaster also offer an opportunity for transformation. With strategic planning, strong governance, and community participation, Pakistan can turn its vulnerabilities into strengths. Investment in early warning system, technology and ⁱⁿ education is vital for minimizing future losses. As the saying goes, "Disasters are not natural; they are the result of unpreparedness." Only through collective efforts and visionary leadership can Pakistan safeguard its people and achieve long

Day: _____

Date: _____

term - Stability in the face of
recurring natural and human induced
disasters.