

Disaster Management in Pakistan : challenges & Way Forward.

A. Introduction

B. Challenges in Disaster Management in Pakistan

1. Lack of Political will and Poor governance
 - Disaster management remains reactive rather than preventive.
2. Weak coordination among NDMA, PDMA's, and local authorities
 - overlapping mandates and absence of a clear chain of command.
3. Insufficient budget allocation and financial mismanagement
 - overdependence on foreign aid and lack of long-term planning.
4. Low public awareness and community unpreparedness
 - No disaster education or training at grassroots level.
5. Poor early warning systems and outdated technology.
 - Ineffective dissemination of warnings to vulnerable areas.
6. climate change, deforestation, and unplanned

urbanization

- Increased frequency and intensity of floods, droughts, earthquakes.

7. Weak policy implementation and non-enforcement of building codes

- Illegal construction in hazard-prone regions.

C. Way Forward for Effective Disaster Management

1. Ensure political commitment and strengthen governance

- Prioritize disaster management in national agenda; empower NDMA.

2. Improve institutional coordination and capacity building

- Clear define roles, decentralize power, train personnel.

3. Increase budget and establish disaster risk reduction funds.

- Shift focus from relief to preparedness and resilience.

4. Launch public awareness campaigns and community-based preparedness

- Incorporate disaster education in schools and media.

5. upgrade early warning systems and adopt modern technology.
- use GIS, satellites, AI, and mobile alerts for timely response.
6. promote environmental sustainability and climate adaptation
- Reforestation, proper urban planning, and ecosystem protection.
7. Enforce building codes and update disaster management policies.
- Mandatory compliance and accountability mechanisms.

D. Conclusion

Disasters, whether natural or man-made, have become a recurring nightmare for Pakistan, leaving behind loss of lives, collapse of infrastructure, and long-term economic setbacks. From the catastrophic 2005 earthquake to the devastating 2010 and 2022 floods, the country has repeatedly found itself unprepared and overwhelmed. In today's world, disasters are no longer rare events; they are increasing in frequency and intensity due to population growth, climate change, and environmental

mismanagement. Pakistan, unfortunately, sits at the crossroads of multiple vulnerabilities - geographically, socially, economically, and institutionally. Disaster management in its true sense, is not just about rescue and relief after a tragedy; it is about risk reduction, preparedness, early warning, coordination, rehabilitation, and long-term resilience. However, in Pakistan, disaster response largely remains reactive rather than preventive. This gap between policy and implementation exposes deep-rooted structural weaknesses in governance, institutions, planning, and public awareness. As a result, each disaster turns into a national crisis instead of a manageable challenge. The issue becomes more alarming when we realize that the poor, rural communities, women, and marginalised groups suffer the most. Yet, with the right political will, strong institutions, modern technology, and community participation, disasters can be mitigated and their impact significantly reduced.

Therefore, this essay critically examines the major challenges in Pakistan's disaster management system - such as poor governance, weak coordination, limited resources, outdated technology, environmental degradation, and policy failures - and proposes practical way forward measures including institutional reforms, financial investment, technological advancement, public awareness, sustainable planning, and strict implementation of laws.

Although disasters are inevitable, their destruction is not; with political commitment, institutional efficiency, technological preparedness, and community participation, Pakistan can transform its disaster management from a reactive system into a resilient and preventive model.

Disaster management in Pakistan remains ineffective primarily due to a lack of political will and poor governance. Instead of treating disaster preparedness as a long-term national priority, successive governments have focused only on short-term relief after a

crisis occurs. This reactive approach results in weak planning, insufficient funding, and the absence of comprehensive disaster risk reduction strategies at the federal and Provincial levels. Moreover, Political instability and frequent changes in leadership disrupt Policy continuity, leaving disaster management institutions without clear direction or authority. For instance, despite the devastating floods of 2010 and 2022, Parliamentary debates and development budgets have consistently prioritize Political projects over disaster prevention, as highlighted in reports by the Asian Development Bank. Therefore, without consistent political commitment and good governance, disaster management in Pakistan cannot evolve from crisis response to proactive risk reduction.

Another major challenge in disaster management in Pakistan is the weak coordination among federal, Provincial, and local institutions such as NDMA, PDMA's, and DOMA's. Although these bodies were created to work

in a hierarchical manner, they often operate with conflicting mandates and lack of communication. The absence of a clear legal framework leads to coordination delays in disaster response efforts. Local government bodies are often closet to the ground but rarely empowered with adequate resources or poor on-ground response plans. The 2022 floods exposed the NDMA's limited capacity to mobilize resources across provinces, leading to delayed government response and causing widespread damage. Thus, without a clear legal framework and coordinated efforts in disaster management, the response is often and inefficient. A critical challenge in Pakistan is the lack of a unified disaster management policy coupled with limited resources. Despite the frequent

results in a hierarchical structure, in practice they often operate in silos with overlapping mandates and unclear responsibilities. The absence of a unified command system leads to confusion during emergencies, causing delays in decision-making and duplication of efforts. Local authorities, who are closest to the affected communities, are rarely empowered or consulted, resulting in poor on-ground execution of disaster response plans. For example, during the 2022 floods, multiple reports revealed that NDMA issued warnings late, PDMA failed to mobilize timely resources, and local governments were left waiting for directives, causing widespread chaos and higher casualties. Thus, without effective coordination and a clear chain of command, disaster management efforts in Pakistan remain fragmented and inefficient.

A critical obstacle in disaster management in Pakistan is the insufficient budget allocation coupled with chronic financial mismanagement. Despite facing recurring floods, earthquakes,

droughts, and climate-induced disasters, disaster preparedness and mitigation are rarely treated as financial priorities.

Most of the budget is spent after disaster occurs on relief and compensation rather than on prevention, early warning systems, infrastructure strengthening, or capacity building. Even the limited funds allocated are often delayed, diverted, or lost to bureaucratic red tape and corruption, reducing their impact on ground-level preparedness. According to government audit reports after the 2010 and 2022 floods, billion of rupees in relief and rehabilitation funds were either unaccounted for or spent without transparency, leaving communities vulnerable to the next disaster. Therefore, without adequate and transparent financial investment in disaster risk reduction, Pakistan continues to remain reactive rather than proactive in dealing with disasters.

Weak infrastructure and unplanned urbanization significantly increase Pakistan's vulnerability to disasters. As cities expand rapidly

Without regulatory oversight, the built environment becomes more fragile and less resilient to natural shocks. Poorly constructed roads, bridges, and drainage systems, and buildings collapse easily during floods and earthquakes due to substandard materials, lack of enforcement of building codes, and corruption in construction contracts. unregulated urban expansion into floodplains, riverbanks, hillsides, and marginalized areas results in high population density in hazard-prone zones, multiplying the damage during disasters. During the 2005 Earthquake, over 70,000 people died largely due to weak building structures, and in 2022 floods, major urban centers like Karachi were submerged because of encroachment on natural drainage channels and blocked stormwater systems. Thus, without resilient infrastructure and planned urban growth, disasters turn into large-scale humanitarian crises, exposing the structural fragility of Pakistan's development model.

Pakistan's disaster vulnerability is worsened by weak early warning systems and outdated technology. Although NDMA & PMD issue alerts, they are often delayed, inaccurate, or fail to reach local communities due to poor digital infrastructure. Flood forecasting, seismic monitoring, & satellite mapping are either underfunded or disconnected from ground-level response. For example, in the 2022 floods, many villages received warnings only hours before flooding, leaving no time for evacuation. Without realtime data and technology-driven preparedness, Pakistan reacts to disasters after they strike rather than preventing damage. Therefore, ineffective early warning systems convert manageable risks into full-blown catastrophes.

Disaster management in Pakistan suffers from weak governance and fragmented institutions. NDMA, POMAs, and local bodies often work in silos without coordination or clarity of roles. Bureaucratic delays, corruption, and political interference

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slow down rescue operations and resource distribution. For instance, during the 2010 & 2022 floods, relief goods were stuck due to political disputes rather than reaching victims. Moreover, disaster policies exist only on paper, with little enforcement or monitoring. When institutions lack accountability & collaboration, disaster response becomes reactive, slow, and inefficient. Thus, governance failures remain a core obstacle to ineffective disaster management.

Political leadership in Pakistan focuses on short-term gains rather than long-term disaster resilience. Mega projects for publicity are prioritized over building embankments, strengthening & drainage systems, or preparing communities. After every disaster, leaders make promises but rarely implement structural reforms. Disaster management plans change with governments, causing inconsistency. In contrast, countries like Japan invest in multi-decade mitigation strategies. Pakistan's frequent political

instability prevents continuity & Planning.

As a result, disaster management remains a seasonal reaction rather than a permanent national priority. Without political will, policies & institutions remain weak and ineffective.

Climate change intensifies disasters in Pakistan, making floods, droughts, & heatwaves more frequent & severe.

Pakistan is among the top 10 most vulnerable countries despite contributing less than 1% to global emissions.

Rapid deforestation, glacier melting, urban heat islands, and irregular monsoons increase disaster risks. In

the 2025 floods, abnormal rainfall and melting glaciers submerged one-third of the country. Moreover environmental

mismanagement, such as cutting trees and encroaching on riverbeds, worsens natural hazards. When climate

adaptation is ignored, nature strikes back harder each year. Thus, environmental

degradation turns natural events into

human tragedies.

Pakistan's weak infrastructure multiplies disaster losses. Poorly built roads, collapsed bridges, and fragile houses cannot withstand floods or earthquakes. Urban planning is almost non-existent - Cities like Karachi & Lahore allow construction on riverbeds & drains, blocking natural water flow & causing urban flooding. Rural areas lack embankments, flood channels, safe shelters, or all-weather roads, which delays evacuation. During the 2022 floods, entire villages were washed away because houses were built with mud & without elevation. In contrast, disaster-resilient countries invest in strong infrastructure and zoning laws. Without resilient planning, every hazard becomes a catastrophe.

Disasters become deadlier when people are unprepared. In Pakistan, most citizens do not know basic evacuation steps, first aid, or early warning ~~signals~~ signals. Schools rarely teach disaster safety drills. Communities rely on fate or

government help rather than preparedness. In the 2005 earthquake, thousands died because they ran out of buildings instead of protecting themselves properly. In contrast, Japan and Bangladesh conduct regular community training and mock drills. Pakistan heavily invests in Post-disaster relief instead of Pre-disaster awareness. When people don't know how to react, even small disasters cause large-scale panic and loss. Pakistan predominantly follows a "reactive" disaster approach - responding after the damage rather than preventing it. Relief camps, food supplies, and aid announcements dominate media coverage, while preventive measures like hazard mapping or risk assessments are neglected. Politicians use relief operations for photo sessions instead of long-term safety measures. This relief-based mindset also creates public dependency where communities wait for external help rather than preparing themselves. Countries with strong

business. mitigation strategies experience fewer
losses even with large disasters. Until
Pakistan shifts from relief to resilience,
disasters will continue to wipe out progress.

Ultimately Pakistan's disaster mismanagement
stems from deeper structural flaws such
as lack of research-based policies,
absence of technology, weak coordination
among institutions, and limited international
collaboration. Scientific data like hazard
mapping, GIS, and early warning
systems models are either outdated
or ignored, leading to poor planning.
Authorities like NDMA, PDMA, local
governments, military, and NGOs
often work in isolation rather than
as one system, which causes duplication
of efforts and delays in response. Moreover,
Pakistan rarely learns from global best
practices or partners with countries that
have successfully built partners with
countries that have successfully built
resilient systems. All of this is further
worsened by socioeconomic inequality,

where the poor, women, and rural populations suffer the most and receive the least support. Therefore, without strong governance, technology, coordination, and inclusivity, disaster management will remain ineffective - making it urgent to shift towards a proactive, resilient & people-centered way forward.

In essence, disasters in Pakistan are not just the result of natural hazards but the outcome of human negligence, weak governance, poor planning, and lack of preparedness. Throughout the essay, it became clear that unplanned urbanization, deforestation, fragile infrastructure, institutional fragmentation, political negligence, limited funding, weak community awareness, & absence of technology collectively turn natural events into national catastrophes. Despite countless lessons from past floods and recent 2025 flood, earthquakes, and heatwaves, Pakistan has remained reactive instead of proactive, focusing on relief rather than prevention. However, disaster

management does not have to remain a story of failure. By restructuring governance, ensuring coordination among institutions, investing in resilient infrastructure, integrating technology and research, empowering local governments, promoting community awareness, enforcing, enforcing environmental protection, and collaborating globally, Pakistan can transform vulnerability into resilience.

If leadership adopts a long-term vision and places human lives at the centre of policy, disasters can be managed rather than feared. Therefore the path forward lies in shifting from a culture of response to a culture of preparedness and prevention. With political will, institutional reform, and collective responsibility, Pakistan can not only reduce the devastating impact of disasters but also build a safer, stronger, and more sustainable future for generations to come.