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Outline: Disaster Management in Pakistan: Challenges & Way forward.

1. Introduction

2. Challenges to managing disasters in Pakistan

- a. Inadequate and decaying infrastructure
- b. Reliance on reactive approaches rather than proactive ones.
- c. Institutional fragmentation and overlapping mandates
- d. Weak enforcement of building codes
- e. Illegal settlements in disaster-prone areas
- f. Dearth of trained staff^{and} equipment in disaster management authorities.

3. Way forward to disaster management in Pakistan

- a. Building robust^{and disaster-resilient} infrastructure
- b. Increasing emphasis on pre-disaster strategies
- c. Defining institutional roles and mandates of disaster management authorities
- d. Ensuring strict adherence of building codes

e. Increasing the number of active personnel and machinery in disaster management authorities

f. Discouraging settlements in disaster-prone areas

4. Conclusion

Pakistan has officially become the most vulnerable country to disasters as per a report published in 2025. This vulnerability is mainly due to its geographical location, which exposes it to climate related disasters such as the monsoon rains, the melting glaciers in the north, and the rising sea-levels in the south. Although, Pakistan has faced disasters almost every year since its inception, the management of disasters have been poor. The story of disaster management in Pakistan can be described as one of poor governance. It faces acute deficiency of climate disaster resilient infrastructure; it relies on reactive strategies rather than proactive ones; and

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the weak enforcement of building codes coupled with unchecked settlements in disaster-prone areas compound the challenges in managing disasters in Pakistan. These challenges; however, can be overcome by adopting pre-disaster strategies, building more disaster resilient infrastructure, and equipping disaster management authorities with well-trained staff and necessary machinery. Though, Pakistan faces a multitude of challenges in managing disasters, they can be addressed by implementing strategies that strengthen both the infrastructure and human capital.

The first and the foremost challenge Pakistan faces in managing disasters is inadequate and decaying infrastructure. For instance, the

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Tarbela^{dam} and Mangla dam of Pakistan, which are the largest dams, have reduced water storage capacity upto 30% due to siltation. This reduced capacity means they store less water and the excess water has to be released back into cities or rural areas, thereby increasing the chances of flooding. In the same way, the lack of water reservoirs in a water-scarce country like Pakistan compounds this problem as well. As per the World Bank & Asian Development Bank, Pakistan lacks water storage capacities and can store water for only 30 days, far below the recommended threshold. Investing in adequate infrastructure, therefore, should

be governments priority.

While inadequate and decaying infrastructure is a serious problem, relying on reactive approaches to disasters is equally problematic. The

disaster management authorities wait for the disaster to occur and then proceed to provide relief and rehabilitation.

As per National Disaster Management Authority, during the 2022 floods, seventy percent of the budget allocated to disasters, went into

providing shelter and relief to the victims. This reliance on

post-disaster strategies acts as a double-edged sword.

One, it forces the country to ask for more aid, increasing

its external debt. Second, disaster management authorities use up

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a major chunk of budget in rehabilitation, which could instead be used to develop resilient infrastructure. Thus, reacting to disasters after they have occurred undermine disaster management strategies.

Similarly, another ^{challenge} problem in managing disasters can be credited to existing institutional fragmentation and overlapping mandates of disaster management authorities. At present, Pakistan has the NDMA, National Disaster Management Fund, IRSA, and the provincial authorities to deal with disasters. There is a lack of harmony and mandate overlap among these institutions. Federal and provincial disaster management authorities, often look up to each

other to take the first initiative. This institutional disharmony and fragmentation further compounds disaster management challenges.

Besides disharmony among institutions, the weak enforcement of building codes in major cities equally make disaster management challenging. This translates into the construction of residential and ^{Commercial} infrastructure without approval from district authorities. Such infrastructure is the most affected ~~not~~ during disasters. For instance, as per NDMA, during the 2005 earthquake in Kashmir, most of the buildings in the affected cities were built without approval ~~from~~ district authorities. This exposed the divide between construction and district

authorities.

In the same way, the illegal settlements in disaster-prone areas pose critical challenges to disaster management. For example, during the 2022 floods, settlements on riverplains of South Punjab were the first ones to inundated with flood water. This not only resulted in the loss of precious lives but also infrastructure. In fact, it made the provision of relief even more challenging. Disaster management authorities had to push against raging currents to save human lives and cattles. Therefore, managing disasters in ~~ra~~ areas vulnerable to disaster becomes an arduous task.

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In addition to the policy and structural challenges faced in disaster, the lack of trained personnel coupled with inadequate disaster-related machinery also undermine disaster management in Pakistan.

For instance, ^{recently} a fire broke out in a commercial building in Quetta, Balochistan. The response from the disaster management authority was poor; the personnel lacked proper uniform and safety equipment, and the water tankers were in a state of dilapidation. Thereby exposing the authorities poor state. Therefore, the presence of well-trained staff and availability of equipment is equally important in disaster management.

While the field of disaster management is

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life with obstacles, Pakistan can still take pragmatic steps to effectively manage them. Firstly, investing in a robust and disaster-resilient infrastructure should be the first priority. It starts with expediting the construction of Diamer-Basha dam, so that Pakistan can store water to meet its energy needs, and prevent the chances of flooding.

Secondly, disaster management authorities should redirect their energies and resources into devising effective pre-disaster strategies. This involves ~~an~~ introducing impactful early warning systems and accurately predicting the likelihood of disasters. The

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NDMA along with PM/H₃
~~can~~ and Pakistan Meteorological
Department (PMD) can collaborate
on this front, and effectively
communicate with farmers
end-to-end for better communication
in times of emergency.

Similarly, the government
needs to define the roles
and procedures of each
disaster management authority.
By doing so, it removes the
conflicts arising as a result
of overlapping mandates, and
decreases the chances of
indecision. Resultantly, authorities
will be swift to act in emergency
and know what to do.

At district level, the
adherence to building codes
is equally important in managing
floods. Strict adherence calls

for following necessary procedures, obtaining permits, and on-site visits by relevant authorities before approval for construction. This ensures that buildings are well constructed and are resilient to natural calamities.

Besides compliance with building codes, maintaining a check on illegal construction and settlements on disaster-prone areas is equally important. As was witnessed during the floods in 2022 and 2025, where settlements on riverplains incurred the most losses in lives and infrastructure. Therefore, actively maintaining a check on illegal settlements on riverplains should go a long way in managing disasters.

Lastly, the increasing the number of active personnel to better respond to disasters, and the presence of well-maintained machinery can be great resource in impactful disaster management. Such measures better equip authorities to be the first responders to natural or man-made calamities, and ensure that they are under control.

In conclusion, disaster management in Pakistan faces serious challenges such as the lack of essential infrastructure, overreliance on reactionary approaches, weak enforcement of laws and ~~the~~ insufficient trained staff and machinery. However, these challenges can be addressed by proactively responding to disasters, building

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disaster-resilient infrastructure, coupled with adherence to laws and having a well-trained disaster management force. Pakistan has faced numerous disasters since its inception but it has come out of them even stronger. It is hoped that Pakistan becomes resilient in the face of disasters it faces.