LEADING THROUGH CRISIS

An Exclusive Interview with Chairman NDMA, Lieutenant General Inam Haider Malik

Q1. Thank you very much for giving us your time from your busy schedule. Disaster management is a critical subject in Pakistan and has largely remained reactive. Yet, under your leadership, NDMA has transformed remarkably; this year, losses were reduced to around USD 3 billion despite multiple floods. When you assumed charge, what were the key challenges, and how did you steer NDMA from being reactive to becoming proactive?

Thank you very much for having us and Team NDMA for a candid discourse on disaster management in Pakistan.

We've set the foundations from the geography of Pakistan. The way we are blessed with our hills in the north, spectacular plains, deserts, and coastal areas. We have tremendous diversity, but that also brings parallel and successive challenges. Whatever happens in the mountains flows to the plains, the desert, and the coastline. If managed well, it is a pleasing experience, but if not, it turns into crises and disasters that Pakistan has repeatedly faced.

Pakistan is also a very densely populated country. People struggle to maintain economic viability, and when disasters, whether heavy rains, floods, heat waves, or earthquakes, occur, they multiply financial and social stress. This has been Pakistan's story from the 1950s to 2020.

Our development projects have historically faced resource constraints. Every development initiative we undertake is not built to the ideal standard of resilience, every building is not earthquake-resilient, riverbank communities are not fully protected, and the overall environment remains vulnerable.

Moreover, an absence of early-warning capabilities and a lack of centralized information compounded to the issues at hand. Ideally, if we know a disaster is coming, we should prepare the right teams, train them, and equip them. That did not exist.

Pakistan's disaster calendar is extremely busy: winter hazards, heatwaves by March, forest fires in May, monsoon floods from June to September, fog and smog later, and the constant possibility of earthquakes, cyclones, and pandemics. Given 5 different geographic zones and 12 months, we face nearly 60 potential contingencies.

Climate change has further intensified the frequency and severity of disasters worldwide. Nobody can stop climate change; it is nature out of control. Global temperatures are rising faster than expected, and we have crossed the 1.5°C threshold already.

So, our thought process was to build capability for timely early warnings, become more indigenous, more self-sufficient, and more independent. This was the foundation of shifting NDMA from reactive to proactive management.

Q2. Given the rapidly evolving climate risk, greater intensity, and increased frequency of disasters, what is Pakistan's capacity to cope? How can NDMA help minimize future vulnerabilities?

A: We have both good and bad news. The good news is that we know what is happening and what is going to happen. The bad news is that every year brings more intensity and greater expectations of losses.

Pakistan today is among the most water-scarce nations, ranked around 14th globally, Although,

rivers and dams seem sufficient, per-capita water availability is falling sharply due to population growth and rapid depletion of groundwater. Water needed for domestic, industrial, and agricultural uses are becoming harder to access.

Disasters may originate far away in the Pacific Ocean, the Bay of Bengal, the Arabian Sea, the Mediterranean, the Arctic, or the Antarctic, and still impact Pakistan. If we know we have four months before an external event becomes an internal disaster, we can prepare communities, fortify infrastructure, clean waterways, and plan evacuations.

Risk-informed planning is essential. Communities should avoid encroaching on waterways, cities must be kept clean and limit pollution to reduce smog, and infrastructure must be built resiliently. Only then can future risks be minimized.

Q3. When planning and managing disasters, interagency coordination is critical. How do you view coordination among departments, and how should it improve?

A: Disasters in Pakistan are not NDMA-specific, they concern every agency, every department, and every community. NDMA guides, and provides information; we maintain global intelligence networks, technical teams, and experts in disaster risk reduction and resilient construction. Disaster management is a devolved subject where NDMA represents the federation, and then Provincial and District Disaster Management Authorities at the sub-national tiers. NDMA in coordination with Provinces works towards proactive national preparedness. While provinces primarily rely on their own capacities to manage disasters, the NDMA provides reinforcements from day one whenever an event exceeds provincial capability.

We have centralized global intelligence, access to satellite feeds, modeling softwares, and meteorological data, which helps us, build a Pakistan-wide picture of risks for six weeks, six months, or even further. We share information on a need-to-know basis and update forecasts as disasters approach.

Ultimately, disaster response requires whole-of-system cooperation, industry, the private sector, academia, humanitarian partners, NGOs, UN agencies, Pakistani diaspora, and the international community chip in to form a comprehensive national resilience landscape.

Q4. How do you evaluate the role of Corporate Social Responsibility (CSR) in addressing disaster risk? What improvements are needed?

A: Pakistan's post-disaster needs often reflect pre-disaster poverty and deficiencies. Communities already lack resilient housing and infrastructure; therefore, pre-disaster support is far more meaningful than post-disaster reconstruction.

Keeping in view the massive impacts of disasters in Pakistan, even if industries contribute 1% or 2% of profits, it cannot match major losses like the USD 30 billion in 2022 floods. CSR must be broadened into a wider perspective where it may include contributions from industry, philanthropic organizations, Pakistani diaspora, and private donors ensuring collective finance disaster preparedness. CSR can play a valuable role in disaster risk management in Pakistan.

For example if we know a flood is expected next July, we should ask industries to voluntarily release CSR funds in February, not August, so houses, waterways, and infrastructure can be strengthened beforehand. Prevention is 7 to 10 times cheaper than post-disaster rehabilitation.

Q5. How does NDMA issue forecasts and alerts? Where do you stand today in terms of forecasting capability, and what improvements are needed?

A: We divide the disaster calendar into two seasons, summer hazards (from March to September) and winter hazards (from October to February). NDMA's National Emergency Operations Centre (NEOC) generates Disasters Early Warning (DEW) every three months, in January, April, July, and October. DEW covers immediate and long-term predictions for Pakistan and can also serve neighboring countries.

Once issued, warnings are not static. We hold conferences, re-explain forecasts, and update them continuously. We inform provincial authorities, emergency responders, NHA, police, military, NGOs, diplomats, academia, and industry.
We also provide recommended actions on specific anticipated hazards, what to do today, next year,

and after three years.

Prior to onset of disaster early warnings are disseminated through print, electronic, digital, and social media, places of worship (mosques, churches and other religious centres), NDMA's mobile application (with regional language translations), regular appearances of technical experts on television and coordination with SUPARCO and Pakistan Meteorological Department. NDMA provides long-term early warnings, which is regularly updated through NEOC's modeling and data input from SUPARCO and PMD. NEOC issues early warning close to the disaster, where PMD facilitates the localized forecasting. Together, we continuously update forecasts until the disaster strikes.

Q6. Climate change is a global phenomenon. How important is global cooperation, and where does Pakistan stand in these efforts?

A: Since climate change is global, the response must also be global. Just as we create a Pakistan-specific disaster calendar, the world needs a global disaster calendar, a universal early-warning platform accessible to every country.

The UN has set a goal to ensure global early-warning systems by 2027. Countries with advanced satellite and meteorological capabilities must make data freely available so responders worldwide can prepare. Global cooperation should include, joint early-warning systems, joint search and rescue teams, shared reconstruction methodologies, support for vulnerable countries, relocation planning for nations at risk of submergence. Disaster risk reduction is the ultimate goal. We cannot evade disasters, we can only reduce their impact.

Q7. Regionally, South Asia is highly vulnerable and densely populated. How synchronized are regional responses, and what role should Pakistan play?

A: In dense regions like ours—Pakistan, India, China, Bangladesh, where nearly half the world's population lives. Disasters here have enormous human consequences. Climate impacts do not respect borders - cloud bursts, monsoons, earthquakes affect multiple countries at once. Therefore, regional cooperation is crucial. Immediate neighbors should be the first responders.

Disasters require collaboration—first from closest neighbors, then from medium and distant partners. For example, Iran supported Balochistan forest fire efforts; Pakistan has sent teams to Turkey, Syria, Myanmar, and Thailand. NDMA regularly shares information with neighboring countries. We regularly conduct simulation exercises with domestic and global partners.

Q8. Structural solutions such as dams are costly and time-consuming. What should be Pakistan's priorities in non-structural or nature-based solutions?

A: There are multiple water sources, and dams are only one part of the larger equation. Dams are important but not all solutions lie in building dams, especially where rivers do not flow year-round or Pakistan lacks control over water. We must prioritize, science-informed planning, technical expertise, risk-informed urban planning, encroachment prohibition in floodplains, population management, early evacuation and voluntary temporary displacement.

NDMA evacuated one million people last year and 3.2 million this year from riverine areas before flooding. Voluntary evacuation is far safer and more effective than forced displacement—early evacuation saves both people and livestock. Infrastructure can be saved only if it is sited correctly; in high-risk zones, it is hard to save the infrastructure.