

- Disaster Management in Pakistan: Challenges and way forward -

Outline:

- i) Introduction
- ii) Disaster Management in Pakistan
 - a) National Disaster Management Authority
 - b) Provincial Disaster Management Authority

- iii) Challenges faced by NDMA in pakistan:

- a) Geographic location
- b) Ethical Erosion
- c) Inadequate disaster funding
- d) Untrained faculty
- e) Lesser access to advanced machinaries
- f) Lack of technological advancement
- g) Lack of cooperation between NDMA and PDMA.

try to write more formal words

- iv) case study:

- a) Floods in pakistan 2022, 2025

- v) Way forward to cope-up these challenges:

a) Promoting climate resilient infrastructure and agriculture.

b) Technological Advancement

i) Installation of AI based early warning system.

ii) GIS and satellite monitoring system.

well organized and quite relevant

c) Implementation of National climate change policy

d) Proper funding at both federal and provincial level.

e) Proper trained faculty.

f) National and International cooperation

g) Advance machineries.

h) Increased water storing capacity.

v) Conclusion.

"Disasters are never natural; they are the outcome of vulnerability and neglect."

— UNDRR —

Disasters, whether natural or man-made, have become a recurrent phenomena challenging the national security of Pakistan as well as, the socio-economic fabric of the country. From earthquakes to floods, droughts and many others, Pakistan is devasting targeted by the climate change - Despite of strong mechanism of NDMA at both National and ~~the~~ provincial level the results are inadequate. Disaster Management authorities facing multidimensional challenges including corruption, water mismanagement, lack of advanced machinaries, and cooperation with low budget allocation - In order to cope-up from these challenges policy reforms, sustainable development, technological advancement and

proper funds are necessary.

Because of our strategic location, many authorities like NDMA and PDMA are untackled to control the loss. Being lower riparian, excess rainfall causes outflow in Indus and many all the different rivers of Punjab and leads towards agriculture losses and infrastructural damages.

According to the National Economic Survey of Pakistan 2022-2023 estimates that about 4.4 million acres of crops were damaged, and roughly 1 million animals died.

Moreover, the major challenge to Disaster management authorities is untrained faculty and low budget allocation. The faculty of disaster management always required assistance from Pakistan Army and from police as well. The least budget allocation causes the less access towards advance.

machinery and technology. like for the current fiscal year (FY 2025-2026), Pakistan's government allocated funds ~~4%~~ of federal budget for disaster - As this low budget allocation contribute towards the worst performance of the Management authorities. However, due to untrained staff many loss such as human loss as well as economic loss is being faced - According to the Islamabad institute of Strategic Studies, more than 3 million people become homeless in the 2022 floods, as well as 1250 plus deaths are recorded. The infrastructural loss is around about 750 bridges are roads are destroyed.

The case study of 2022 floods shown about economic loss of 30 billion. Similarly, the floods of 2025 led to more extreme circumstances than 2022 -

Mainly the Punjab province brings contributed about more GDP from

the remaining provinces due to its fertile soil and Indus presence.

In the present circumstances, most

of agriculture sectors is hit by devastating floods. Mainly rice, rabi crops, cotton and wheat

crops. On one side it causes agriculture decline and on the other food

insecurity. According to the latest

report of ISSPA, it is expected agriculture decline upto ~~0.2-0.3%~~.

from the previous year. Most

probably, the rice exports

is declined by ~~5.8%~~ this year.

Meanwhile, the total economic

loss is ~~\$2.9 billion in 2025~~ with

agriculture loss of about ~~40 million~~,

infrastructural loss of ~~300 million~~ and

household ~~92 million~~ - (The Nations) -

As far as Punjab is mainly concerned, one of the major reasons

that increase intensity of intensify

destruction is rapid urbanization -
Most probably Punjab is affected
by flash and urban floods
every year. So, this rapid
urbanization enclosed the route
of water flow in many areas
result in burst off. One of the
major incident of 2025 is the
Parkview city is a perfect example.

Humanity's mastery over nature
has turned into its
mismanagement.

- Rachel Carson -

The increasing global temperature
causes the intensity of disasters

to extreme level - This write in formal
language please

increase in temperature is
because of global warming
result in glacier outburst
contributed in unmanged
floods - Pakistan also blened

with glaciers. The climate change mostly these disasters are not natural but manmade - Day by day increase in the emission of GHG's gases will contributed for disasters in the future.

According to the world risk report, Pakistan is being 24th most top

countries that vulnerability hit by climate change although

its contribution towards GHG's

emission is only 4% - The most

contributed countries in GHG's is

USA, China and many more mostly western block but the remaining

are faced by the Global

South - The glacial outburst

due to this problem increasing

very rapidly, and due to

technological misavailability,

our authorities are not merely

updated - According to the

international commission of ice and snow, the ice loss in india and china is 25%, uk is 22% and in pakistan more than 80% of the glacial melting is observed and it is a emerging as a threat to national security of pakistan.

Besides of increasing the climate threat, the lack of advanced machineries results in increasing economic losses and increases the risk of floods vulnerabilities mainly human life loss - like in floods of 2025, the death toll approximate in punjab is 322 deaths, 90 deaths in Sindh, Gilgit-Baltistan 31, Balochistan 38, KPK approximate 509 deaths, the highest among all the regions. (NDMA).

plz write with proper subject verb and object

As a human, ~~we cannot control the disaster but contribute towards controlling measure and prevention technologies to manage the losses due to disasters. The use of climate resilient infrastructure and climate resilient agriculture play an important role in reducing economic losses.~~

Engineering resilience is the most probable first line of defense against nature's offense.

- World Bank -

In today's era, an advanced infrastructure ~~is promoted everywhere.~~ has been promoted everywhere. The water table is decreased because water is not absorbed by the soil due to full concrete infrastructure - Mostly in developed countries, as well as developing countries, it will cause water scarcity and also increased

risk of conflicts among different countries - \rightarrow Initiative must be taken off by the government like increasing gaps of natural grounds to absorb more and more water by China.

In the current era of technology, Lack of technological equipments and machinaries is a curse. Most developed countries used different technology as well as AI based tools to tackled disasters.

The use of early warning system also helps us to locate the presence of and intensity of disasters - Therefore, cooperation with the neighbouring countries like China has to be taken for the future generation -

Moreover, the installation of satellite monitoring system and GIs System also contributed toward the sustainable promotion and

advancement - like, on October 2025,

Pakistan launched its remote sensing satellite with the collaboration of China that are used for disaster monitoring.

Named as Hyperspectral satellite (HS-1) - (CISS Pakistan)

In as much as with the advancement in technology, it is essential to promote awareness as well as strong implementation of climate change policy.

In Pakistan most of the issues remains unresolved due to less implementation of policies - In addition

to that people awareness about disasters is essential - like in concern the incident of a family in Swat, in which 29 members of the people one died due to sudden outflow of water - This seems to be more alarming about to how much extent people

are awarded. In addition to that, Pakistan has to increase its storage capacity of water by promoting Dam projects and hydro power projects. On one hand, these projects are helpful in storing water for future and on the other hand, the energy demand is full and complete by these projects.

Nature punishes not by wrath, but by reflection of human ignorance.

- Environmental Maxim -

Hence, it can be inferred that the challenges seems to low budget, corruption and lack of technology with the addition of untrained faculty. Pakistan faced a lot of economic loss in 2022 and 2023 also - In order to cope-up, institutional reforms, strong satellite monitoring, sustainable agriculture and infrastructure and proper funds are needed.