

• 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 machineries

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.
 - 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 machinaries.
 - h) Increased water storing capacity.
- vi) conclusion.

well organized and quite relevant

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

— UNDRR —

Disasters, whether natural or manmade, 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 devastating 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 machineries, 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 repairs, 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 2% 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 1500 plus deaths are recorded. The infrastructural loss is around about 150 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 its
fertile soil and indus presence.

In the present circumstances, most
of agriculture sectors is hit by
devastating floods. Mainly rice,
maize, cotton and wheat
crops. On one side it causes agriculture
decline and on the other food
insecurity.

According to the latest
report of ISSRA, 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 402 million,
infrastructural loss of 300 million and
household 92 million. (The Nations)-

As for as punjab is mainly
concern, one of the major reasons
that increase intensity of intensify

destruction is rapid urbanization -
Most probably punjab is affected
by flash and urban floods
ever 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

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

write in formal
language please

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 contribute for disasters in the future.

According to the world risk reports, Pakistan is being 24th most top countries that are vulnerably hit by climate change although its contribution towards GHG's

emission is only 2%. - The most contributed countries in GHG's is USA, China and many more - mostly western block but the repercussions are faced by the Global South. - The glacial outburst due to this problem is 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

plz write with proper subject verb and object

in floods of 2025, the death toll approximate in punjab is a 322 deaths, 90 deaths in

Sindh, Gilgit-Baltistan 31,

Balochistan 38, KPK approximate

509 deaths, the highest among all the regions. (NDMA).

As a human, ~~we cannot control the~~
~~disaster but contribute towards~~
~~controlling measure and prevention~~
~~technacalities 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 every
where**
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. So ~~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 machineries 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 ~~help~~ 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 towards 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-4) - (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 member
of the people one died due to
sudden outflow of water - This
seems to be more alarming
about to how much extent people

~~are aware~~ - In addition to that, Pakistan has to increase its ~~storing~~ capacity of water by promoting Dam projects and hydropower projects. on one hands, 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.