

An aerial photograph of a vast, flooded landscape. A wide, winding river or channel of water flows through the scene, surrounded by submerged land. The water is a deep blue-grey, while the submerged land appears as lighter, mottled patches of green and brown. The sky above is filled with soft, white clouds, creating a textured background for the title text.

Floods and Physicians: Healing Beyond Waters

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**Floods are not just natural disasters,
but public health crisis**

**Trigger outbreaks like cholera,
diarrhoea, dengue**

**Increase malnutrition
and mental health issues**



Contents

- **Global Flooding in Different Regions**
- **Flood in Bangladesh**
- **Effects of flood**
- **Role of doctors in flood management**
- **Challenges in flood management**



At least 30 people have died, and more than 80,000 people were evacuated

134 confirmed fatalities along with 30 children

At least 225 deaths

More than 500+ dead and 4,000 people displaced

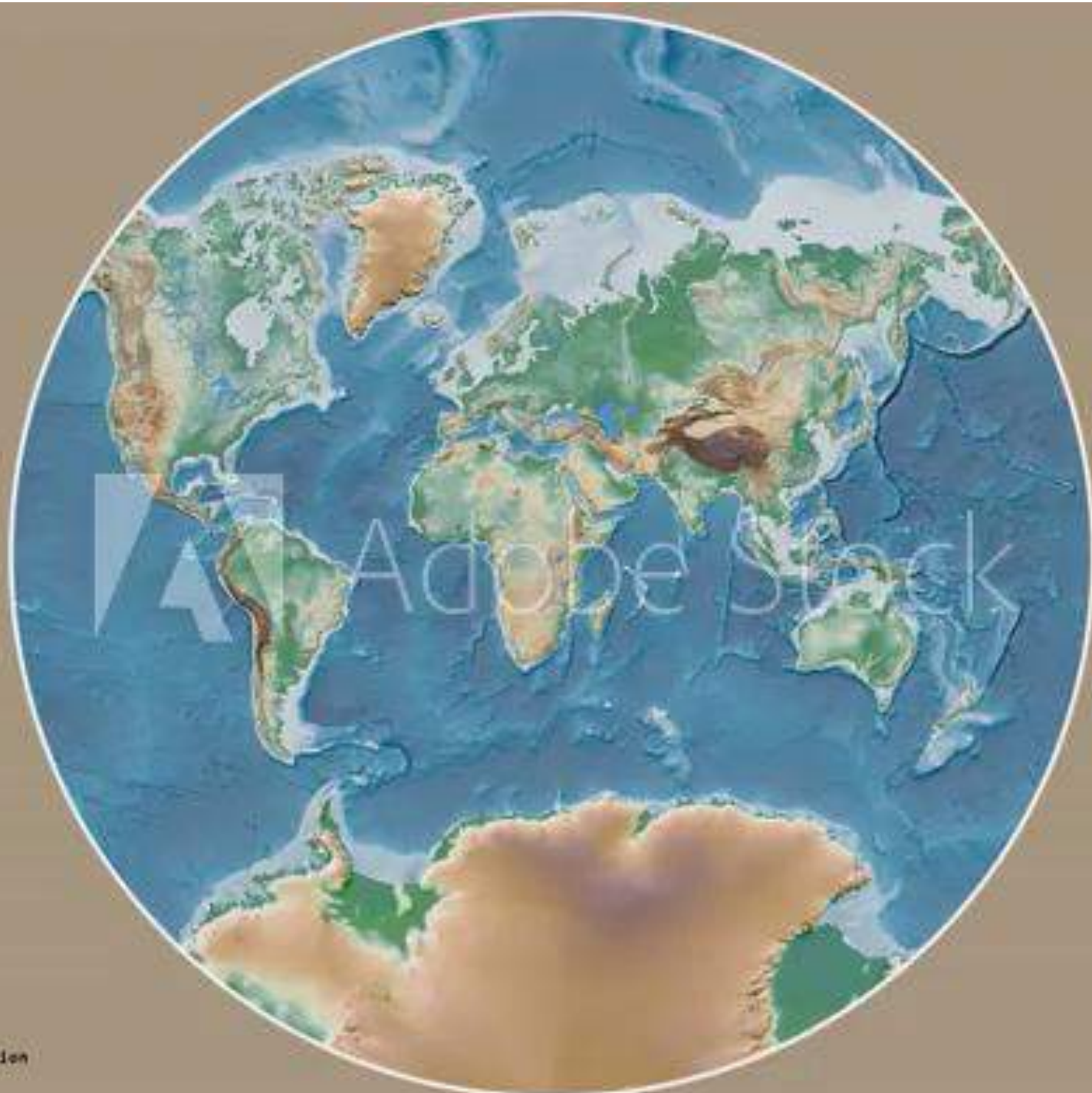
Combined floods and landslides claimed 47 lives loss

Death toll escalated from 57 to 103

Bolivia (55+)

Australia (5)

**From global to local, Bangladesh is
not immune**



30°20'E

0°00'S

Van der Grinten I (oblique) projection

Why focus on floods in Bangladesh?

Low-lying deltaic country in South Asia

Ganges, Brahmaputra and Meghna

80% of the land is floodplain

One of the most flood-prone countries in the world

Flooding affects millions annually



Flood



- An overflow of water that submerges land that is usually dry
- Causing destruction or damage to infrastructures

People are adapted to flooding

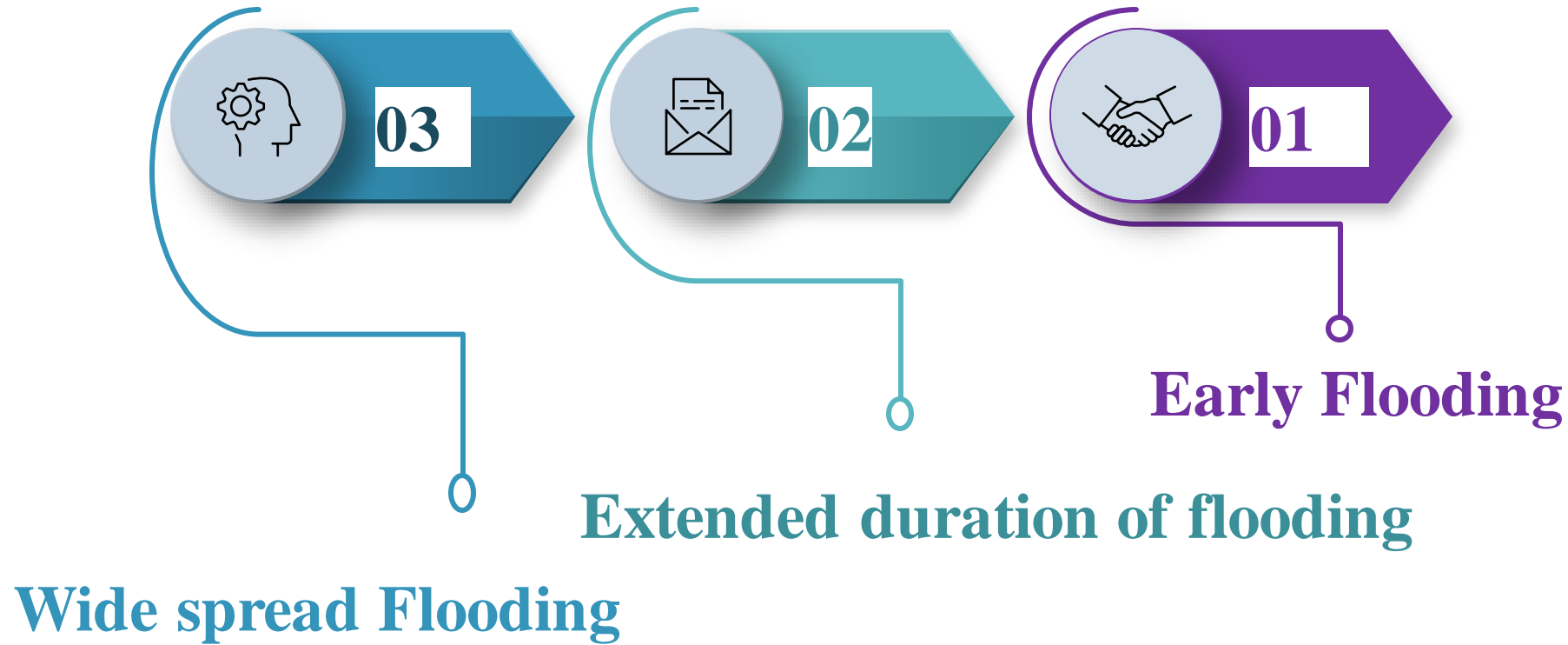
30 to 35% land surface is flooded every year

This provides moisture and make soil fertile.

Good source of natural fish



But the problem arises when three things happen:



WHY?



Monsoon rain



Snow melting
in Himalayas



Cyclones



River system



Low-lying geography



Deforestation



Dam building & reservoirs

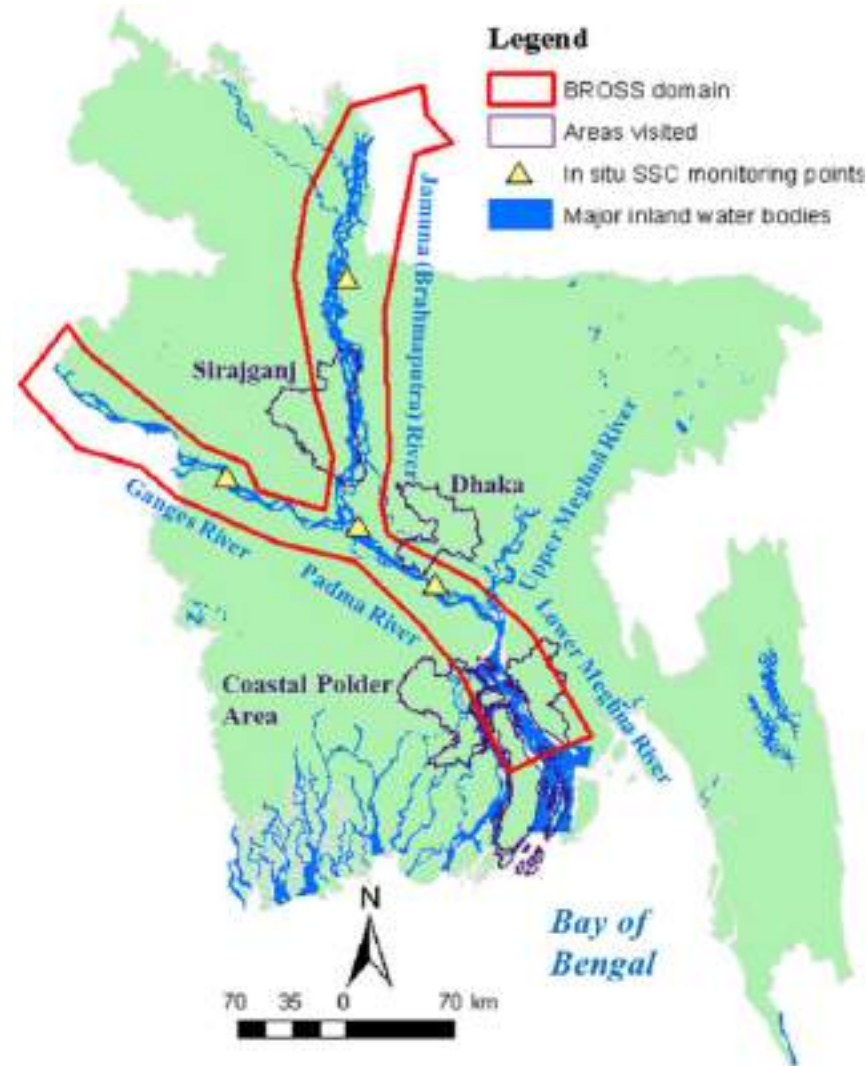


Urbanization



Global warming

Vulnerable areas of Floods in Bangladesh



Types of Flood in Bangladesh



Flash Flood



Rain-fed Flood



Riverine Flood



Cyclonic Flood

Types of Flood in Bangladesh **cont.**

Types	Example of events	Impacts
Riverine flood	1988 & 1998 flood	60% of land submerged, thousand died, long term displacement
Rain-fed flood	Dhaka 2004	Waterlogging streets, power sanitation breakdown,disruption of daily life
Cyclonic flood	Cyclone Sidr 2007, Aila 2009	Storm surge 3-5 meters, thousands kills, long term water logging,
Flash flood	2022, 2024 flood	Quick submersion of haor areas, crop loss, hill erosion, sudden onset



Dhaka City During The Flood of 1988



Bangladesh Flood in 1998



Dhaka City in 2004 Flood





In 2007 Cyclone Sidr killed over 3000 people, submerged large parts of Barishal, Patuakhali, and Bagerhat



August flood 2024

Effects of Flood

Health Impacts

drowning



Vector & waterborne diseases



Skin infection



Respiratory illness



Snake bite



electrocution



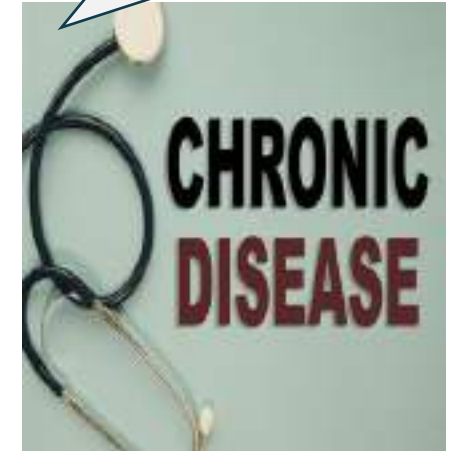
Disrupt care



Psychological disruption



Chronic diseases



Environmental Impacts



Soil Erosion



Loss of Biodiversity



Deforestation

Economic Impacts



Crop Destruction



Livestock Loss



Infrastructure Damage

Disruption of Healthcare Services

Hospitals and clinics flooded,
medical supplies destroyed.

Consequences:

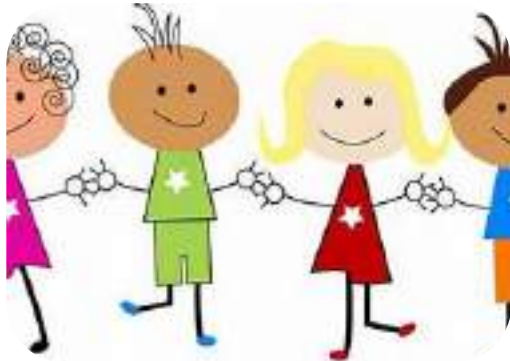
Delayed treatment, increased
mortality.



Who are at risk?



**Low-income communities
due to limited access to
resources**



**Children: high risk of
waterborne disease and
malnutrition**



Pregnant women



**Immuno
compromised**



**Elderly: Increased
susceptibility to injuries and
chronic diseases**



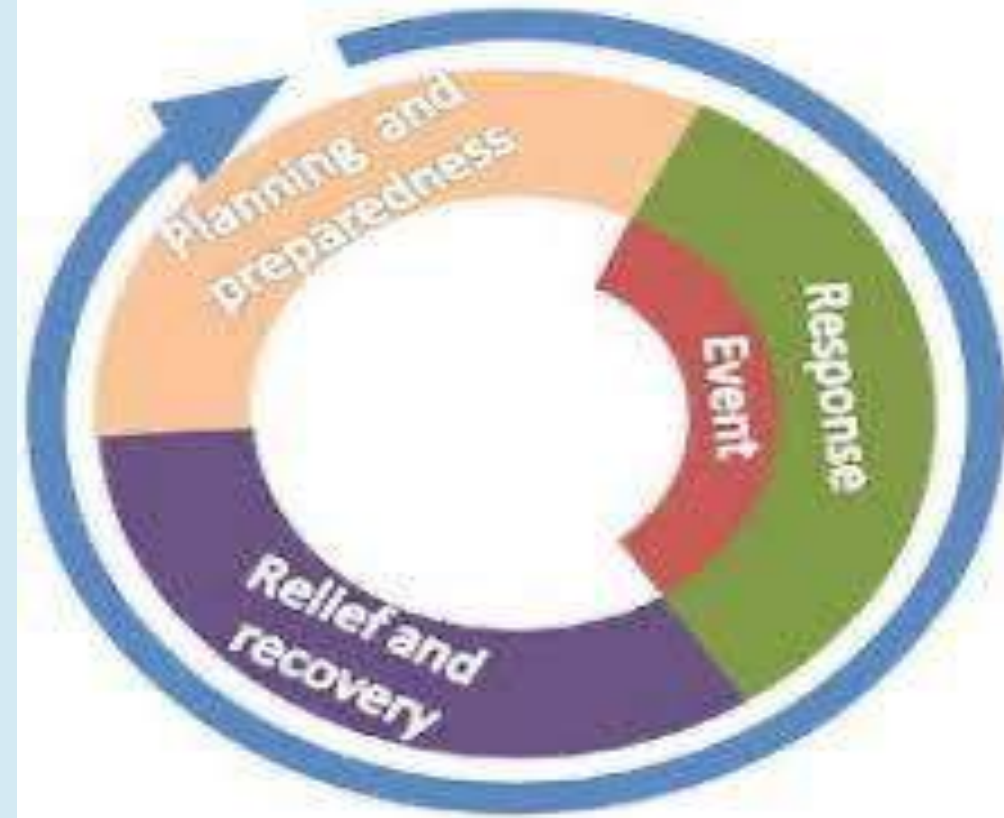
Flood Management

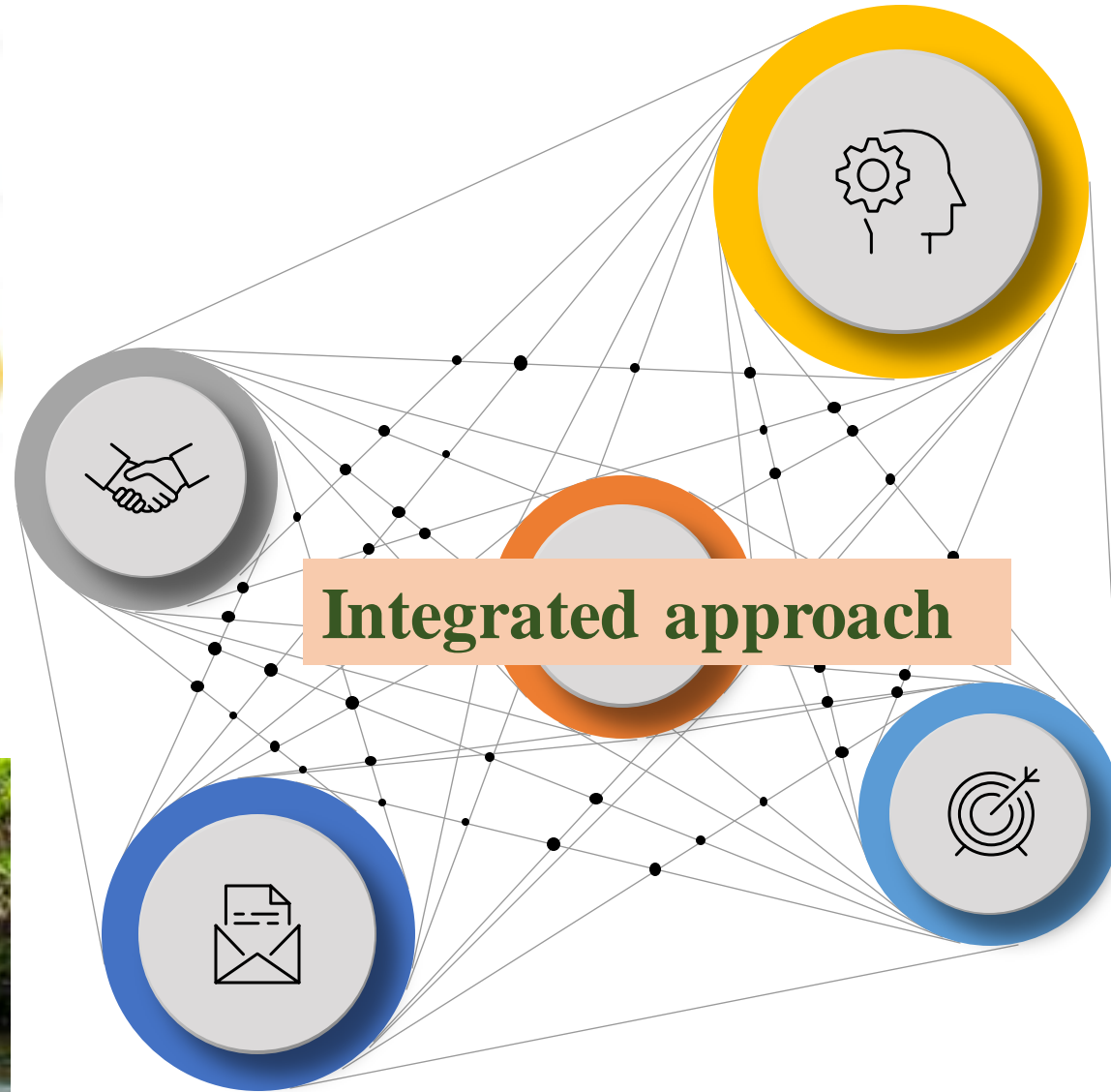
“implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction, including structural and non-structural measures, such as integrated flood management and appropriate management of fragile ecosystems”



**WORLD
METEOROLOGICAL
ORGANIZATION**

- 1. Flood planning and preparedness**
- 2. During flood (Emergency Response Phase)**
- 3. Post-flood recovery & Rehabilitation**





Role of a Doctor in Flood Management



Flood planning and preparedness

1.

a.

Risk Assessment & Surveillance

b.

Public Health Education & Training

c.

Stockpiling Medical Supplies

d.

Vaccination campaigns &
Coordination with partners

Flood planning
Preparedness

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graph LR; A((a.)) --- B((b.)); B --- C((c.)); C --- D((d.)); D --- E((1.)); E --- F((Flood planning Preparedness)); F --- A; F --- B; F --- C; F --- D;
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a. Risk Assessment & Surveillance



**Identify high-risk
populations**



Monitor disease

b. Public Health Education & Training



Educate communities

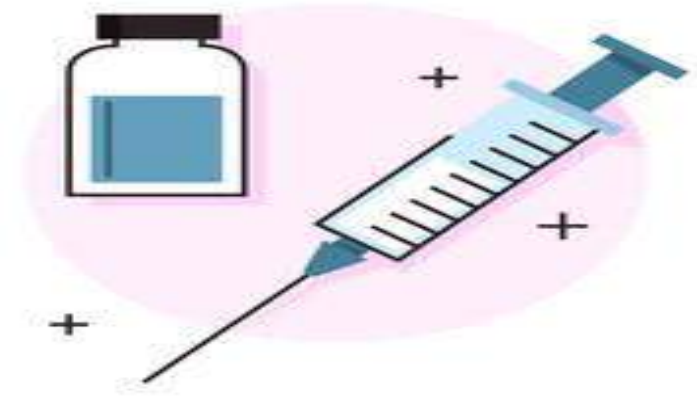


**Train community health workers
and volunteers**

c. Stockpiling Medical Supplies



d. Vaccine campaign



d. Coordination with Partners



2.

During the Flood (Emergency Response Phase)

a) Medical triage & First aids

Treat injuries

b) Outbreak control

Manage acute diarrhea, respiratory infections, and skin diseases

c) Safe Water & Sanitation

- Promote boiling/distributing chlorine tablets
- Ensure proper waste disposal

d) Mental Health Support

- Provide psychological first aid for flood victims
- Refer severe cases

3.

Post-Flood Recovery & Rehabilitation

a) Health Facility Restoration



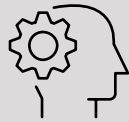
- Assess damage to hospitals, clinics, and pharmacies
- Ensure continuity of maternal and child health services

b) Long-Term Disease Monitoring



- Track post-flood malnutrition, vector-borne diseases, and chronic illnesses
- Strengthen community-based surveillance

c) Policy Advocacy & Research



- Advocate for better flood-resilient health infrastructure
- Conduct research on flood-related health impacts

Challenges in Flood Management in Bangladesh

- Inadequately trained manpower (doctors, paramedics)
- Poor infrastructure in rural/remote areas
- Limited surveillance and early warning systems
- Waterlogging and vector breeding
- Post-flood coordination gaps between the government and NGOs

Take home message



- Floods are not just natural disasters — they are public health emergencies
- The impact goes beyond water — it disrupts healthcare access, sanitation, nutrition, and mental well-being
- Doctors: The Essential Lifesavers Behind the Scenes
- In every flood, doctors are not just healers — they embody hope, empower communities, and provide protection



**THANK
YOU**



Any Questions

