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TURNING ASPIRANTS INTO ACHIEVERS

DISASTER MANAGEMENT

FOR UPSC CIVIL SERVICES EXAM

EXAM-ORIENTED

CONCEPT -CENTRIC

STRUCTURED & SIMPLIFIED

Every disaster carries a lesson—preparedness is the greatest response.”



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SECTION 1

UNDERSTANDING DISASTER MANAGEMENT

1. INTRODUCTION TO DISASTER MANAGEMENT

Disasters—both natural and human-induced—are increasing in frequency and intensity globally, driven by climate change, environmental degradation, and unplanned urban growth. Between 2000 and 2019, disasters affected 4 billion people worldwide, causing \$2.97 trillion in economic losses (UNDRR, 2020)

1.1. BASIC DEFINITION

Disaster – Definition

A **disaster** is a sudden, calamitous event that causes **serious disruption** to the functioning of a community or society, resulting in **widespread human, material, economic, or environmental losses** that exceed the community's ability to cope using its own resources.

Key points:

- Always involves significant **impact** (loss of life, property, livelihoods).
- Measured in terms of **severity** and **scale**.
- **Defined in the Disaster Management Act, 2005 (India) as:**
“A catastrophe, mishap, calamity, or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence, which results in substantial loss of life or human suffering or damage to and destruction of property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.”

Example:

2013 Uttarakhand floods, 2004 Indian Ocean tsunami, Bhopal Gas Tragedy.

Calamity – Definition

A **calamity** is a **great misfortune or disaster**, often used in a broader and more **descriptive/literary sense** to indicate a grievous event causing deep distress or damage.

Key points:

- Calamity is a **term in common language and legal usage** (e.g., “National Calamity” in government notifications).
- May or may not require the same formal disaster management mechanisms.
- Sometimes used for **smaller scale** or **localized events** compared to a full-scale “disaster”.

Example:

Crop failure due to pest attack may be termed a "calamity" in agricultural relief notifications, even if not declared a full “disaster” under the DM Act.

Hazard – Definition

A **hazard** is a **potential source of harm** or a situation with the potential to cause **loss of life, injury, property damage, environmental degradation, or disruption** to human activity.

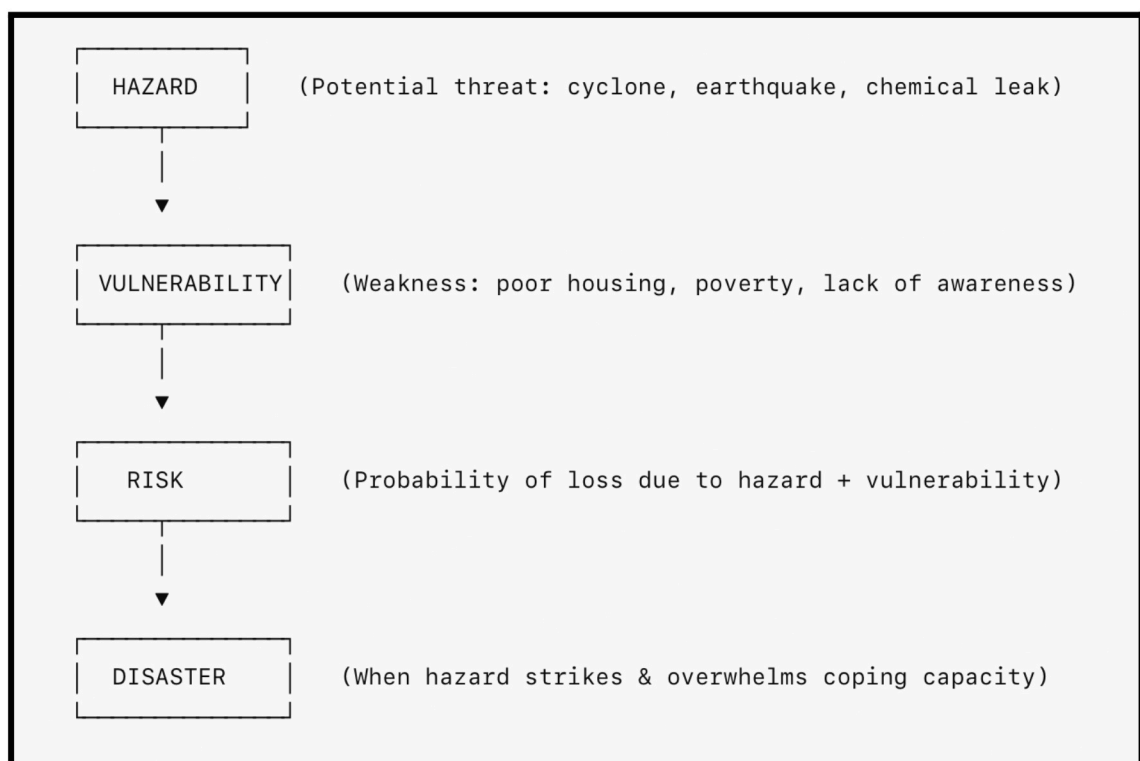
Key points:

- A hazard is **not** the disaster itself — it's the **danger** that *may* cause a disaster if it materializes and interacts with vulnerable communities.
- Hazards can be **natural**, **human-made**, or **socio-natural**.
- Defined by the **UNDRR (United Nations Office for Disaster Risk Reduction)** as:
"A process, phenomenon, or human activity that may cause loss of life, injury, or other health impacts, property damage, social and economic disruption, or environmental degradation."

Hazard vs Disaster – Key Difference

Aspect	Hazard	Disaster
Nature	Potential threat	Realized event causing damage
Impact	Possible, not certain	Actual loss and disruption
Dependency	Exists regardless of human exposure	Occurs only when hazard meets vulnerability
Example	Cyclone in the ocean	Cyclone hitting a populated coast

$$\text{Hazard} + \text{Vulnerability} - \text{Capacity} = \text{Disaster}$$



Risk = Hazard × Vulnerability ÷ Capacity to Cope

- **Hazard** → The dangerous event or process.
- **Vulnerability** → Susceptibility of people, property, or environment to harm.