

Disaster Management

Introductory Course

Concepts and Terminologies



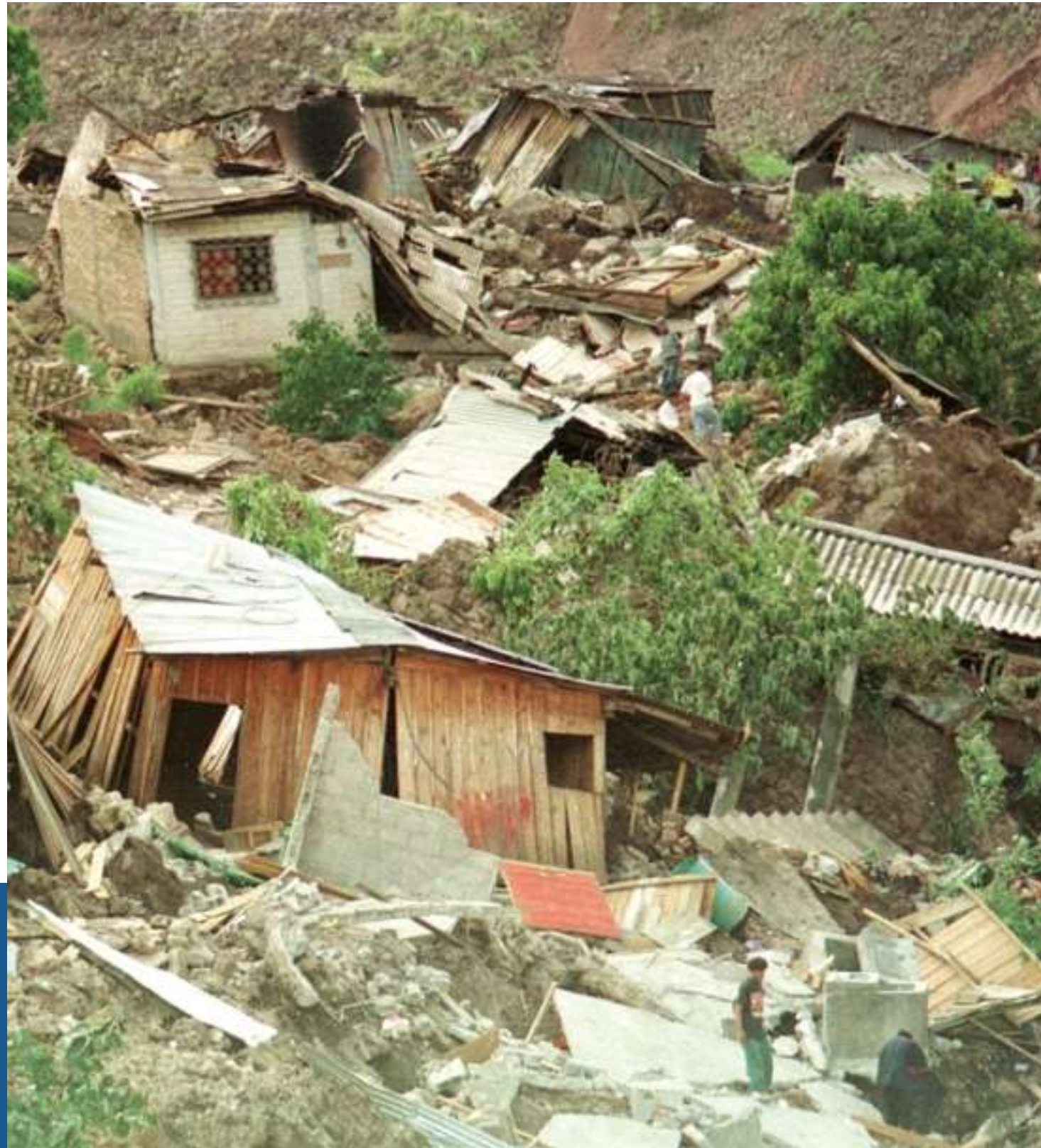
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Defining HAZARD

Hazards are defined as **physical phenomena** that pose a **threat** to the **people, structures** or **economic assets** and which **may cause a disaster**.

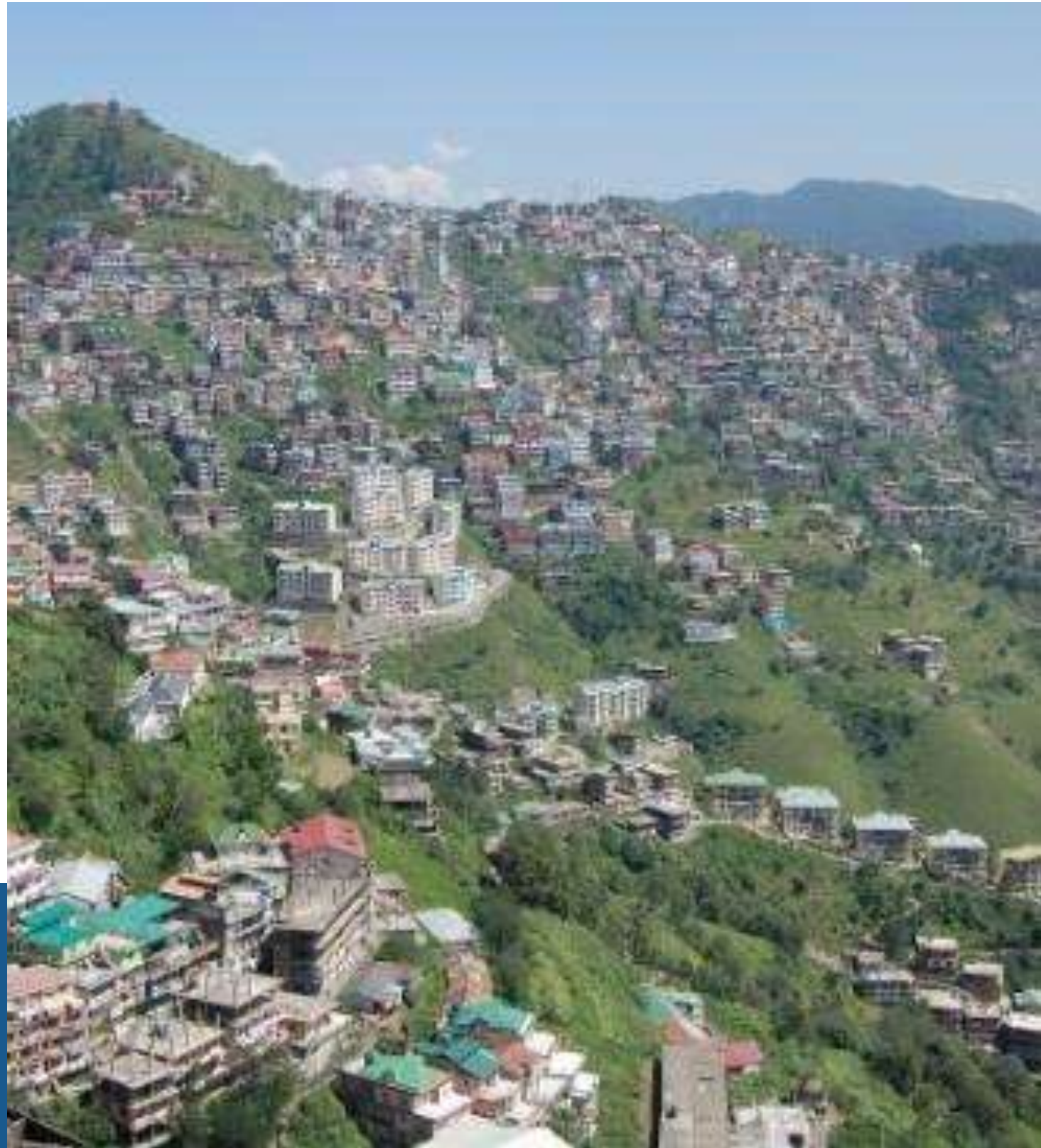
Earthquake, floods, tsunami etc. are all hazards and we can prevent them from becoming disasters



Defining DISASTER

An **event, natural or human made sudden or progressive**, which **impacts** with such **severity** that the **affected community** has to respond by taking **exceptional measures**.

The World Economic Forum found that around **250 million people** are affected by natural disasters **every year**



Defining RISK

Potential for loss or adverse consequences resulting from the interaction of a **hazard**, **exposure**, and **vulnerability**, moderated by **capacity**.

$$RISK = \frac{Hazard \times Vulnerability \times Exposure}{Capacity}$$

Risk, Hazard & Disaster



Risk



Hazard



Disaster

Impact of Disasters

- **Loss of life**
- **Loss to Property and Infrastructure**
- **Damage to livelihood**
- **Damage to Environment and Biodiversity**
- **Economic Loss**
- **Sociological & Psychological after effects**



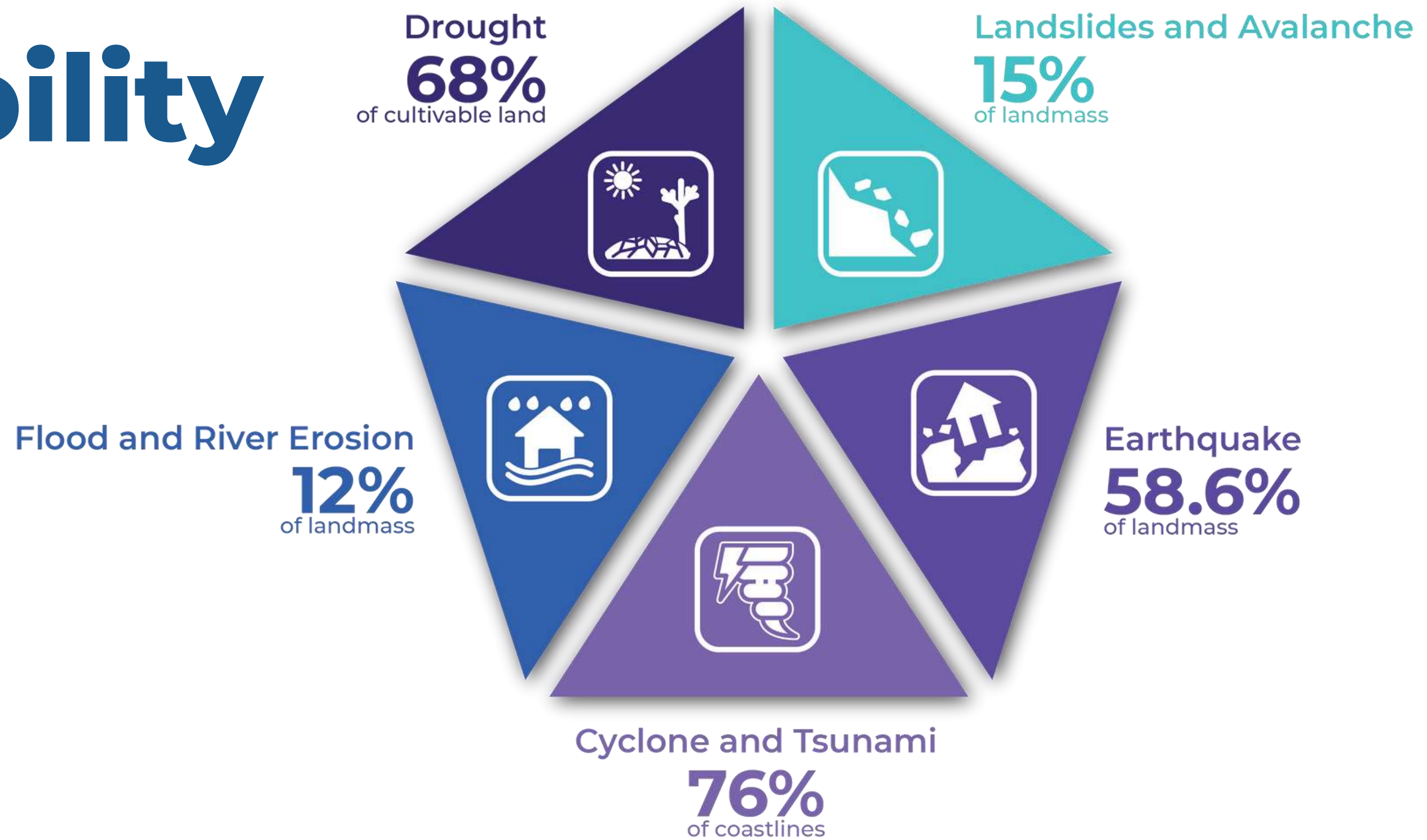


Defining Vulnerability

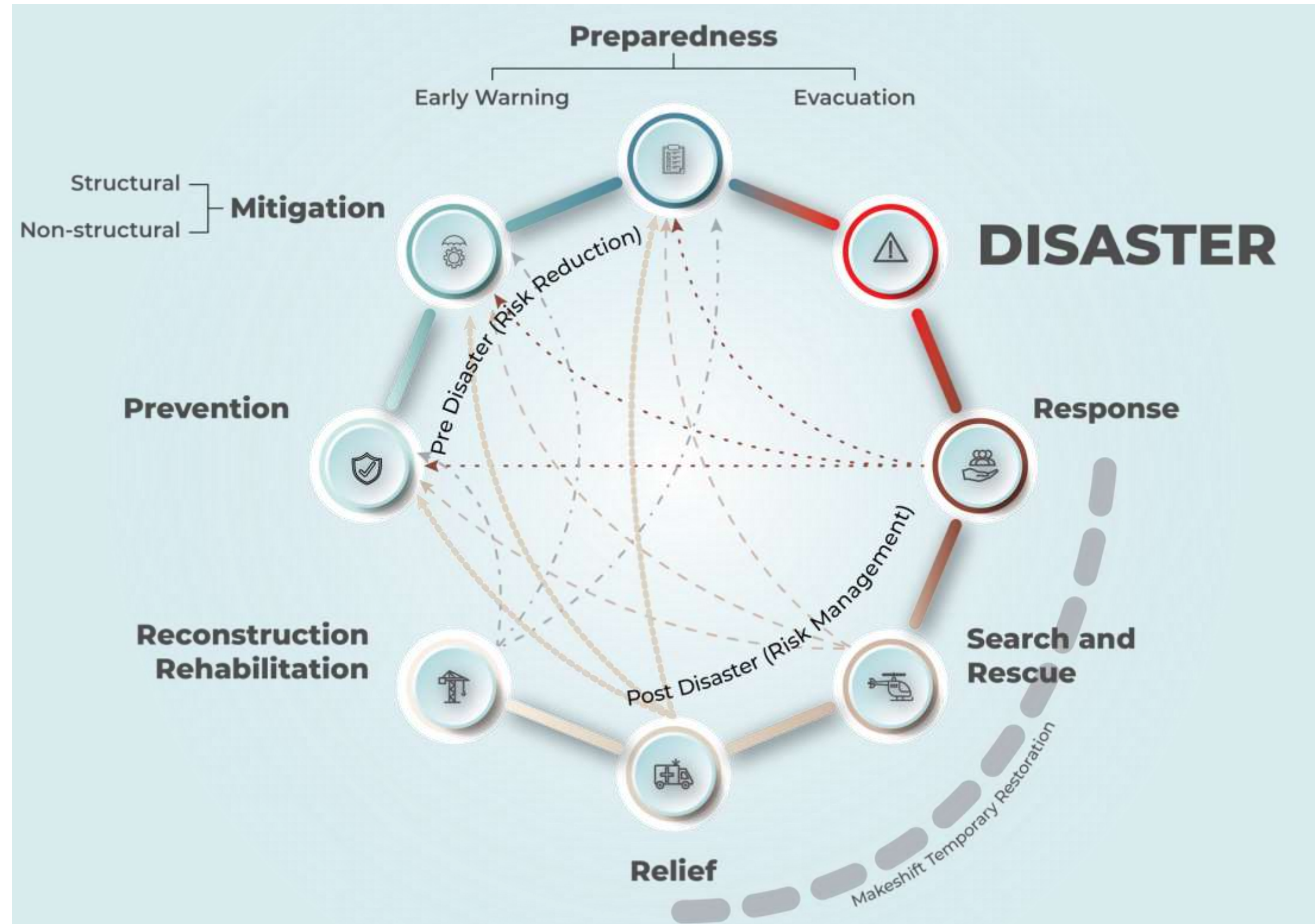
It is the **extent** to which a **community, structure, service or geographic area** is **likely to be damaged or disrupted** by the **impact of a particular hazard** on account of its **nature and proximity** to **hazardous terrain** or a **disaster-prone area**

It is the likely extent of damage due to a hazard.

Vulnerability Profile



Disaster Management Cycle



Pre Disaster

Disaster Risk Reduction

Prevention

Activities to avoid the adverse impact of hazards and means to check from turning into disasters.

Mitigation

Measures taken in advance of a disaster aimed at reducing its impact on society and the environment.

Preparedness

Activities and measures taken in advance to ensure effective response to the impact of hazards - timely early warnings and temporary evacuation.

Post Disaster

Disaster Risk Management

Response

Specific actions taken immediately after a disaster to provide support to those affected, immediately initiated by the community itself and by the district, state, national or up to international levels in due course of time.

Search & Rescue

Search and Rescue, often known by the acronym SAR, is the process of locating of the disaster victims who may be trapped or isolated and bringing them to safety and providing them with medical attention.

Relief

An act of helping or alleviating the conditions of persons who are suffering from the effects of disaster/calamity.

Recovery

Include long term measures. Return humans and built infrastructure to minimum operational/living standards-initially temporary in nature