DISASTER MANAGEMENT

What is Disaster?

Disaster, as defined by the United Nations, is a serious disruption of the functioning of a community or society, which involve widespread human, material, economic or environmental impacts that exceed the ability of the affected community or society to cope using its own resources.

What is Management?

"Management is an art of getting things done through and with the people in formally organized groups. It is the art of creating an environment in which people can perform and individuals and can co-operate towards the attainment of group goals".

"Management is an art of knowing what to do; when to do it and see that it is done in the best and cheapest way".

What is Disaster Management?

Disaster management is how we deal with the human, material, economic or environmental impacts of the said disaster. It is the process of how we "prepare for, respond to and learn from the effects of major failures".

When do disasters occur?

Disasters occur when a hazard impacts vulnerable people disproportionately. The combination of hazards, vulnerability and inability to reduce the potential negative consequences of risk results in disaster.

(VULNERABILITY+ HAZARD) / CAPACITY = DISASTER

What is Hazard?

- A potential source of harm
- A hazard is any source of potential damage, harm or adverse health effects on something or someone.
- Basically, a hazard is a potential for harm or an adverse effect.
- Sometimes the resulting harm is referred to as the hazard instead of the actual source of the hazard. For example, the disease tuberculosis (TB) might be called a "hazard" by some but, in general, the TB-causing bacteria (Mycobacterium tuberculosis) would be considered the "hazard" or "hazardous biological agent".

Difference between disaster and Hazard?

A hazard is any unusual event that has the potential to threaten people's lives, property and livelihoods. For example, typhoons, floods and fire are hazards. A hazard becomes a disaster when it happens where many people are living or have their livelihoods and causes damage to them and their property.

A hazard is a situation where there is a threat to life, health, environment or property.	A disaster is an event that completely disrupts the normal ways of a community. It brings on human, economical, and environmental losses to the community which the community cannot bear on its own.
Hazard are occurred at the place which has less population	Disasters are mainly occurred at over populated area.
Hazard is caused by negligence	Disaster is a results of differential behavior of nature due to many conditions.
Hazards are natural or manmade phenomenon that are a feature of our planet and cannot be prevented.	These hazards are termed as disasters when they cause widespread destruction of property and human lives.
In their dormant state, hazards just pose a threat to life and property.	Once a hazard becomes active and is no longer just a threat, it becomes a disaster.

What is Risk?

Risk is the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard. It may also apply to situations with property or equipment loss, or harmful effects on the environment.

- For example the risk of developing cancer from smoking cigarettes could be expressed as:
- Cigarette smokers are 12 times (for example) more likely to die of lung cancer than non-smokers

What is Vulnerability?

Vulnerability is the inability to resist a hazard or to respond when a disaster has occurred. For instance, people who live on plains are more vulnerable to floods than people who live higher up.

In actual fact, vulnerability depends on several factors, such as people's age and state of health, local environmental and sanitary conditions, as well as on the quality and state of local buildings and their location with respect to any hazards.

- Families with low incomes often live in high-risk areas around cities, because they can't afford to live in safer (and more expensive) places. This is what we call economic vulnerability.
- Similarly, a wooden house is sometimes less likely to collapse in an earthquake, but it may be more vulnerable in the event of a fire or a hurricane. This is what we call physical vulnerability Different types of Disaster

Types of Vulnerability

There are four main types of vulnerability

Physical Vulnerability:

The physical vulnerability of an area depends on its geographic proximity to the source and origin of the disasters.

Example: if an area lies near the coast lines, fault lines, unstable hills etc. it makes the area more vulnerable to disasters as compared to an area that is far away from the origin of the disaster.

Example: Wooden homes are less likely to collapse in an earthquake, but are more vulnerable to fire.

Social Vulnerability:

It refers to the inability of people, organizations and societies to withstand adverse impacts to hazards due to characteristics inherent in social interactions, institutions and systems of cultural values.

- It is linked to the level of well-being of individuals, communities and society. It includes aspects related to levels of literacy and education, the existence of peace and security, access to basic human rights, systems of good governance, social equity, positive traditional values, customs and ideological beliefs and overall collective organizational systems.
- Social vulnerability to natural phenomena is greatest among the poorest people in developing countries owing to a lack of information and resources with which to take the appropriate measures. Within this group, children, women and the elderly are considered to be the most vulnerable.
- Example: When flooding occurs some citizens, such as children, elderly and differently-able, may be unable to protect themselves or evacuate if necessary.

Economic Vulnerability:

The level of vulnerability is highly dependent upon the economic status of individuals, communities and nations. The poor are usually more vulnerable to disasters because they lack the resources to build sturdy structures and put other engineering measures in place to protect themselves from being negatively impacted by disasters.

- Example: Poorer families may live in squatter settlements because they cannot afford to live in safer (more expensive) areas.

Environmental Vulnerability:

Natural resource depletion and resource degradation are key aspects of environmental vulnerability.

- Example: Wetlands are sensitive to increasing salinity from sea water, and pollution from storm water runoff containing agricultural chemicals, eroded soils, etc.

Attitudinal Vulnerability:

A community which has negative attitude towards change and lacks initiative in life resultantly become more and more dependent on external support. Communities with fatalistic or dependent ideologies may be more vulnerable because they can't cooperate or recover successfully after the disaster.

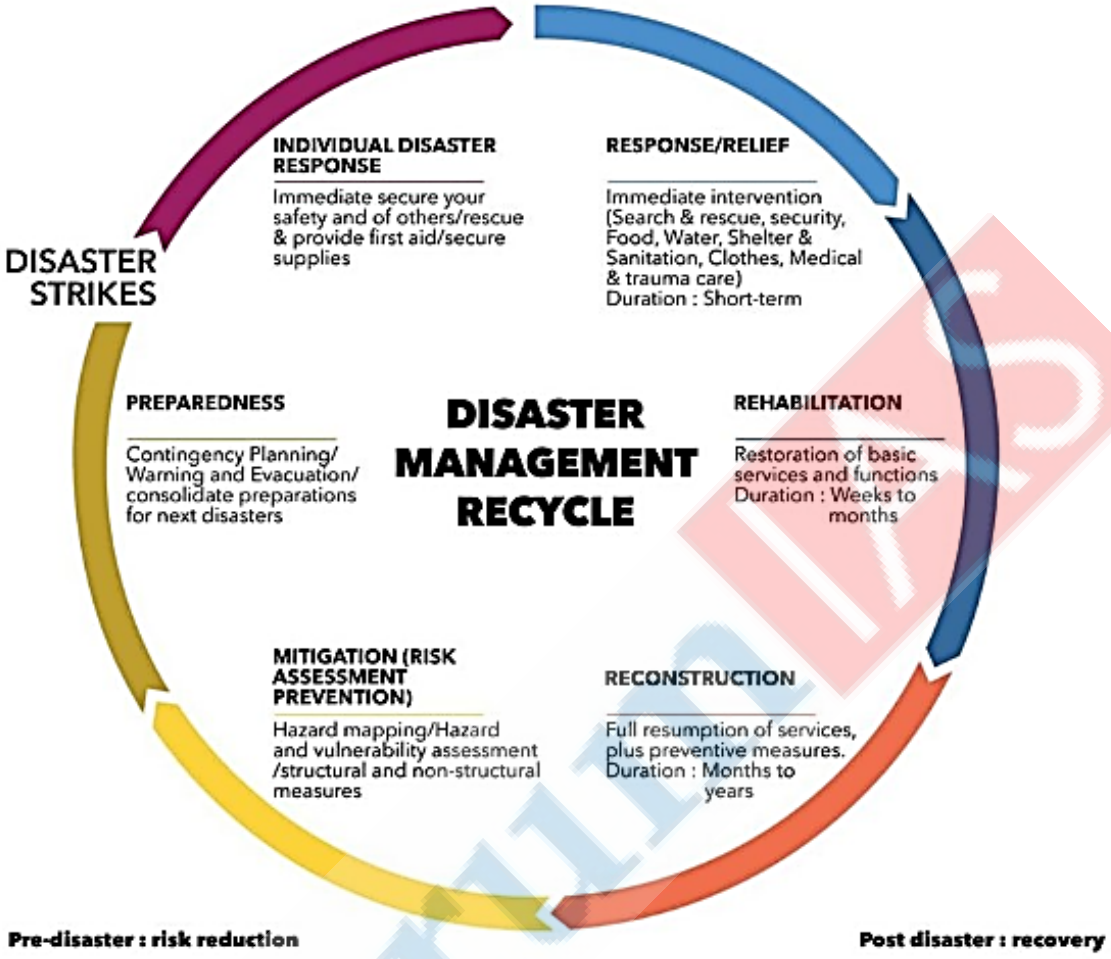
- They cannot act independently. Their sources of livelihood do not have variety, lacks entrepreneurship and do not possess the concept of collectivism.
- This brings about disunity and individualism in society. Thus, they become victims of conflicts, hopelessness and pessimism which reduces their capacity of coping with a disaster.

Types of Disaster

Disasters can be classified into the following categories:

- Water and Climate Disaster: Floods, hail storms, cloudbursts, cyclones, heat waves, cold waves, droughts, hurricanes
- Geological Disaster: Landslides, earthquakes, volcanic eruptions, tornadoes
- Biological Disaster: Viral epidemics, pest attacks, cattle epidemics, and locust plagues
- Industrial Disaster: Chemical and industrial accidents, mine shaft fires, oil spills,
- Nuclear Disasters: Nuclear core meltdowns, radiation poisoning
- Man-made disasters: Urban and forest fires, oil spills, the collapse of huge building structures

Components of Disaster Management



DM involves a continuous and integrated process of planning, organising, coordinating and implementing measures which are necessary or expedient for:

Disaster Mitigation

- Disaster Mitigation is the cornerstone of emergency management. It's the ongoing effort to lessen the impact disasters have on people and property. Mitigation involves keeping homes away from floodplains, engineering bridges to withstand earthquakes, creating and enforcing effective building codes to protect property from hurricanes, and more.
- Mitigation is defined as "sustained action that reduces or eliminates long-term risk to people and property from natural hazards and their effects." It describes the ongoing effort at the federal, state, local and individual levels to lessen the impact of disasters upon our families, homes, communities and economy.

Disaster Prevention

- UNISDR views Disaster Prevention as the concept of engaging in activities which intend to prevent or avoid potential adverse impacts through action taken in advance, activities designed to provide protection from the occurrence of disasters.

- WCPT similarly highlight that while not all disasters can be prevented, good risk management, evacuation plans, environmental planning and design standards can reduce risk of loss of life and injury mitigation.
- The HYOGO Framework was one such Global Plan for Natural Disaster Risk Reduction, which was adopted in 2005 as a 10 year Global Plan, signed by agreement with 168 Governments which offered guiding principles, priorities for action and practical means for achieving disaster resilience for vulnerable communities

Difference

- The term Mitigation can be comprised of the term Prevention. Mitigation means reducing the severity of the human and material damage caused by the disaster. Prevention is to ensure that human actions or natural phenomena do not result in disaster or emergency.
- To prevent means to stop. Here, preventing a disaster means stopping the disaster from occurring.
- To mitigate means to reduce or control. Here, disaster mitigation means to control or reduce the effects of a disaster.