

What is a Hazard ? How is it classified ?

Hazard may be defined as “a dangerous condition or event, that threat or have the potential for causing injury to life or damage to property or the environment.” The word ‘hazard’ owes its origin to the word ‘hasard’ in old French and ‘az-zahr’ in Arabic meaning ‘chance’ or ‘luck’. Hazards can be grouped into two broad categories namely natural and manmade.

Natural hazards are hazards which are caused because of natural phenomena (hazards with meteorological, geological or even biological origin). Examples of natural hazards are cyclones, tsunamis, earth-quake and volcanic eruption which are exclusively of natural origin. Landslides, floods, drought, fires are socio-natural hazards since their causes are both natural and man made. For example flooding may be caused because of heavy rains, landslide or blocking of drains with human waste.

1. Manmade hazards are hazards which are due to human negligence. Manmade hazards are associated with industries or energy generation facilities and include explosions, leakage of toxic waste, pollution, dam failure, wars or civil strife etc.

2. The list of hazards is very long. Many occur frequently while others take place occasionally. However, on the basis of their genesis, they can be categorized as
Follows:

Table 1.2: Various types of hazards

Types	Hazard	
Geological Hazards	1. Earthquake 2. Tsunami 3. Volcanic eruption	4. Landslide 5. Dam burst 6. Mine Fire
Water & Climatic Hazards	1. Tropical Cyclone 2. Tornado and Hurricane 3. Floods 4. Drought 5. Hailstorm	6. Cloudburst 7. Landslide 8. Heat & Cold wave 9. Snow Avalanche 10. Sea erosion
Environmental Hazards	1. Environmental pollutions 2. Deforestation	3. Desertification 4. Pest Infection
Biological	1. Human / Animal Epidemics 2. Pest attacks	3. Food poisoning 4. Weapons of Mass Destruction

Types	Hazards	
Chemical, Industrial and Nuclear Accidents	1. Chemical disasters 2. Industrial disasters	3. Oil spills/Fires 4. Nuclear
Accident related	1. Boat / Road / Train accidents / air crash Rural / Urban fires Bomb /serial bomb blasts 2. Forest fires	3. Building collapse 4. Electric Accidents 5. Festival related disasters 6. Mine flooding

What is vulnerability ?

Vulnerability may be defined as *“The extent to which a community, structure, services or geographic area is likely to be damaged or disrupted by the impact of particular hazard, on account of their nature, construction and proximity to hazardous terrains or a disaster Prone area .Vulnerabilities can be categorized into physical and socio-economic vulnerability.*

What is capacity ?

Capacity can be defined as *“resources, means and strengths which exist in households and communities and which enable them to cope with, withstand, prepare for, prevent, mitigate or quickly recover from a disaster”*. People’s capacity can also be taken into account.

What is risk?

Risk is a *“measure of the expected losses due to a hazard event occurring in a given area over a specific time period. Risk is a function of the probability of particular hazardous event and the losses each would cause.”* The level of risk depends upon:

- ❖ Nature of the hazard
- ❖ Vulnerability of the elements which are affected
- ❖ Economic value of those elements