

Disaster management

Disaster can be defined as any occurrence that

- Damage - Ecological disruption - loss of human
- Deterioration of health and health services on a scale sufficient to warrant an extraordinary response from outside the affected community
- It is Nothing but beyond the coping capacity of the affected community.
- Hazard is any phenomenon that has the potential to cause disruption or damage to people and their environment.

Hazard becomes a disaster when

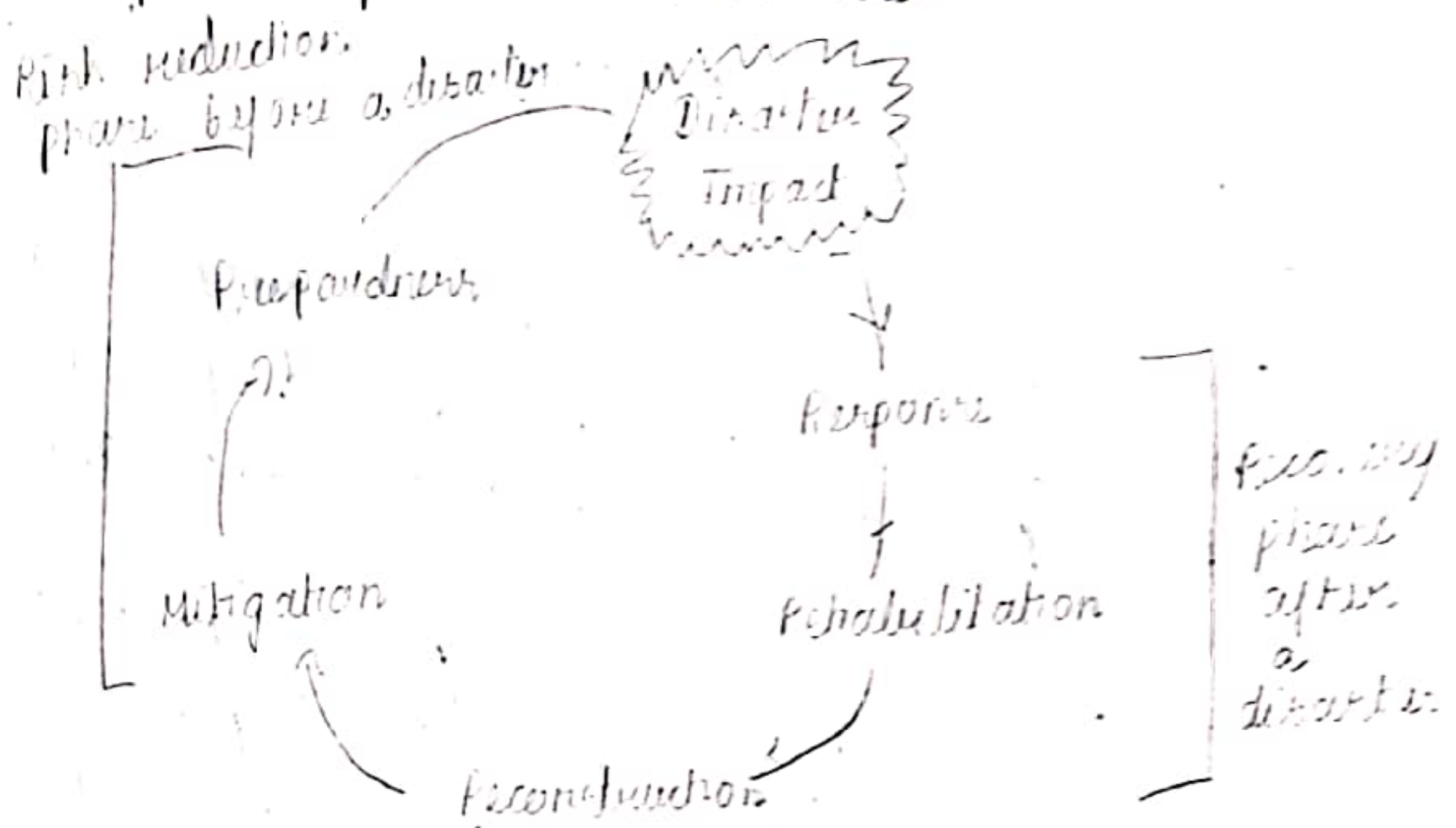
- ① it results in injuries, loss of life, homelessness, damage to destruction or property.
- ② when its happens, the community preparedness for
- ③ A cyclone that affects the uninhabited island does not result in disaster, but if it affects the populated area it causes loss of lives and property extensively.

Disasters are many types like earthquakes, cyclones, floods, tidal waves, land-slides, volcanic eruptions, tornadoes, hurricanes, snow storms, snows, heat wave, famine, epidemic, nuclear accidents, warfare etc.

Disaster management: Definition

- It is a continuous process of planning, coordinating and implementing measures for
 - i) Prevention of any disaster.
 - ii) Mitigation (reduction of risk) of any disaster.
 - iii) Capacity building including resources and knowledge
 - iv) Preparedness to deal with any disaster.

v) Rapid response to a disaster.



Disaster cycle:

1) Disaster impact and response:

Most injuries are sustained at the time of the 'impact' hence greatest need for emergency care is required in first few hours.

① Search, rescue, first-aid

② Field care

③ Triage

④ Hospital treatment

⑤ Redistribution of patients to other hospitals if required.

① Search, rescue, first aid:

Most immediate help comes from injured survivors.

② Field care

- Usually nearest health facilities are attended by the injured person regardless of facility no.
- Beds and other resources are made ready.
- Food and shelter should be arranged.
- Inquired station should be established.
- Priority given to victim identification.
- Adequate mortuary space.

i) Triage:

- Used when mass emergencies overwhelm the health service capacity.
- First come first treated is not allowed
- Rapidly classified the injured on the basis of severity of disease, the likelihood of surviving with prompt medical intervention, done with locally available skills.
- High priority is given to patient who has long time prognosis by immediate simple intervention can be given, Patient who needs a great deal of attention is given least priority.
- Triage is the only approach that can provide maximum benefit to the greatest number of injured in a major disaster situation.
- Red - High priority, Yellow - Medium priority - Ambulatory patients, Black - Dead patient.

ii) Tagging → All the patients should be identified with tags which has name, age, sex, place of origin, Triage category, diagnosis, initial treatment.

iii) Identification of Dead → Removal of dead body, shifting to mortuary, Identification, Reception of relatives, Proper respect is given. If dead bodies are contaminated with H₂O causes cholera.

2) Relief phase

- ← Nutrition
- ← Vaccination
- It is usually concerned with i) Treating casualties ii) Preventing spread of communicable disease.
- Suppliers are blankets, food, clothing, shelter.
- Making room for receiving large quantities of donations.

3) Vaccination

- Typhoid and cholera vaccine are not routinely recommended.
- Tetanus vaccine are only considered if an unimmunized person gets injured.

ii) Nutrition

- ① Assessing food supply
- ② Gauging nutritional need of affected people.
- ③ Calculating daily food ration.
- ④ Monitoring nutritional status of affected persons.

3) Rehabilitation

Water
Food
Vector
Sanitation

1) Water Supply

- Main concern is microbial contamination - Chlorination
- The water should be protected from access to people, animals, excreta disposal, bathing, washing.
- Physical integrity, chemical quality, Remaining capacity are checked.

2) Food safety

- In feeding programmes, kitchen sanitation, personal hygiene of food handlers.

3) Sanitation

- Emergency latrines should be provided.
- Bathing and cleaning facilities need to be provided.

4) Vector Control

- Especially in Endemic areas.
- Malaria, Dengue → Mosquitoes
- Rat bite fever, Leptospirosis → Rat
- Typhus, Lice, fleas
- Plague (Fleas)

i) Disaster Mitigation

- Measures taken before the disaster strikes from
 - i) Preventing hazard to become a disaster.
 - ii) Lessen the likely effect of disaster.
- Reducing the vulnerability of disaster by
 - i) Improving structural quality of schools, hospitals and, water supply, sewage disposal.

ii) Disaster Preparedness

- A program of long term activities whose goal is to strengthen the overall capacity and capability of the country to manage efficiently all type of emergency.
- Disaster preparedness is an on-going multinectoral activity. which does the following tasks:
 - i) Evaluate the area of higher risks.
 - ii) Organize communication, information & warning system.
 - iii) Ensure coordination and purposes mechanism.
 - iv) Ensure financial and other resources are readily available.
 - v) Develop public educational programmes.
 - vi) Raising information from new media.
 - vii) Organize exercises that test response mechanism.

Personal protection:

- Do not use telephone except for help.
- Listen to radio, other media and updated.
- Carry out what they say.
- Have emergency kit ready.
- It is better to be prepared than to get hurt.
- i) To get information as to get organized ii) To wait

Floods:

Before: ^{know} Area they live, downstream, special signals (Foghorns), weather forecast, Dam breaking

During: ① Switch of electricity. ② Move people and belonging to upstairs. ③ Beware of water contamination ④ Evacuate the danger area.

After: ① To wait until it is safety to live ② Wait till water is safe ③ Clean and disinfect room ④ Clean and sterilize kitchen utensils. ⑤ Get rid of all the foods.

Storms, Hurricanes, Tornadoes

Before: Know the area, Prepare shelter, minimize the falling trees, Roof tops, Measures for flooding, Emergency kit.

During: → Listen to information, Don't use car or boat, Evacuate houses. Tie down all things, If outside lie flat. Cut down electricity.

After: Falling objects, water are safety.

Earthquakes

Before: Death is due to falling objects and collapsing

Buildings, ① Build in accordance with planning ②.

Ensure all the electric and gas are connected ③ Avoid

heavy objects in upper position ④ Emergency kit.

⑤ Hold family evacuation drills.

During: ① Don't panic ② If indoors, ^{goto} centre of building.

③ Don't go under staircase. ④ Outside open place, away from building, wires ⑤ Park vehicles away from building.

After: Food, water, Emergency kit, Obey the authorities, Don't go immediately to building.

Clouds of Toxic fumes → close doors and windows, seal the opening with adhesive tapes.