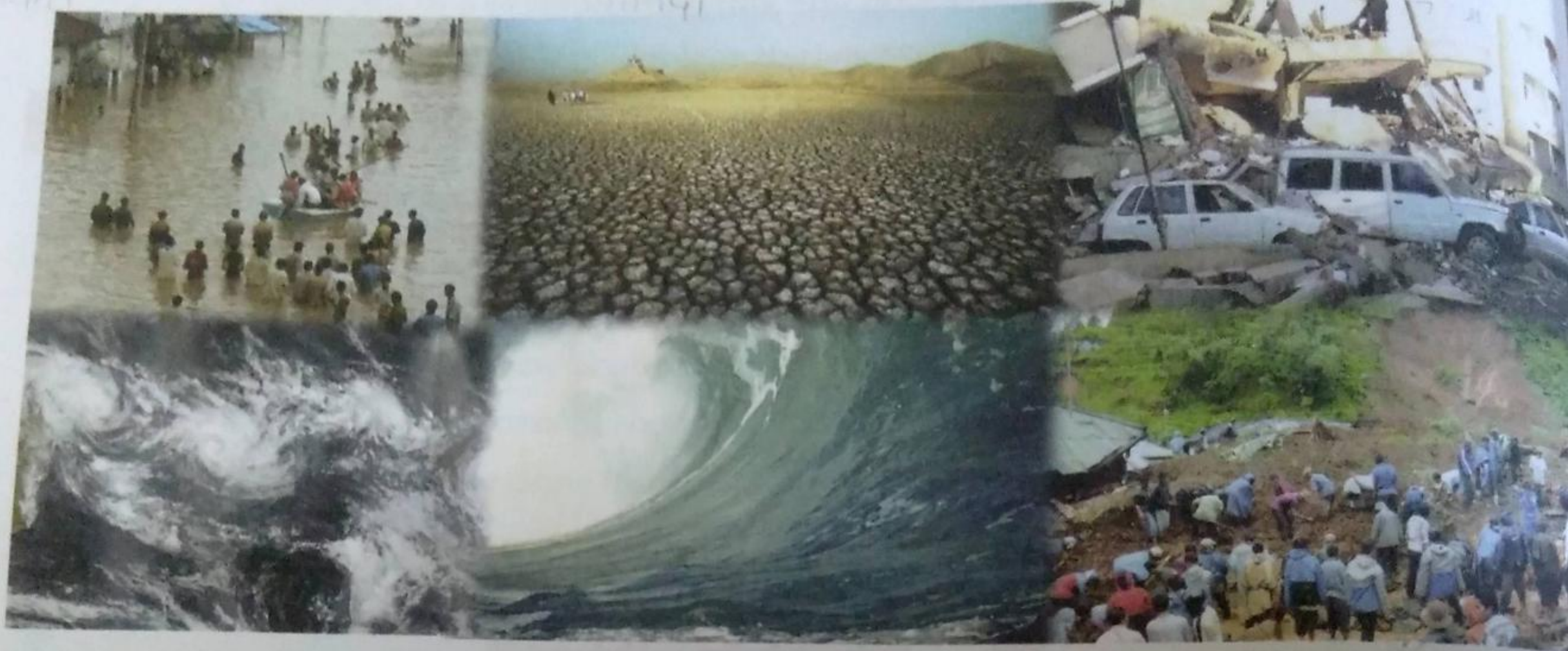


10

Natural Disasters and Mitigation



Nature has provided life on the earth. Nature is not only a creator of the different living and non-living things but it is also a destroyer of these things. Natural calamities are these destroyers. These are also known as the disasters. The disasters such as floods, droughts, earthquakes, cyclones, tsunamis, landslides and the forest fires cause great loss of life and property.



Natural disasters

Let us understand about these disasters. We will also learn about the organisations that help to face these natural calamities. These organisations also ensure the role of individuals come forward while facing the challenges of such disasters.

FLOODS

Floods generally occur when there is a heavy rainfall. During heavy rains, rivers overflow and flood the surrounding areas. Excess rain and deforestation result in soil erosion in the mountains followed by floods in the plains. Floods cause

- ◆ Excessive loss of life and property. Houses are washed away, cattle die in large numbers and crops are destroyed.



Floods cause a great damage to life and property

For the Teacher : It is suggested to explain about the mitigation measures and the various agencies work for rescue purposes.

- Death of many people because of drowning, snake bites, fever and infections after a flood.
 - Destruction of crops, occurrence of famine-like conditions.
 - Loss of jobs, migration of people to cities in search of jobs. The farmers are the major victims.
- In India, Bihar, West Bengal and the north-eastern States suffer from heavy floods due to the overflowing of the rivers like Ganga and Brahmaputra every year.



Drought causes food scarcity

a large number of cattle and people.]

DROUGHTS

The excess rainfall causes floods while its scarcity causes droughts. In India, agriculture is the main occupation of three-fourth of the population. Farmers depend on the monsoonal rain from June to September. Monsoon provides water for growing crops. [The monsoons in India are very erratic, sometimes they are early and other times, they are late. This results in the scarcity of food grains, starvation and death of

C-1

CYCLONES

C-2

(Cyclones occur due to the low-pressure systems towards which winds travel at great speed.) The coastal belts in India are prone to cyclones. These areas experience a great difference between temperature and pressure conditions on land and sea.

- Near the coastal areas, water level rises suddenly and lashes onto the land destroying buildings and crops.
- Strong winds with speeds of over 100 km per hour or more uproot trees, telephone and electric poles and also destroy whatever comes in their way.
- (Cyclones are more frequent in the coastal Gujarat, Orissa, West Bengal and Andhra Pradesh.) In these areas, they have caused severe damage to life and property.



Cyclones cause destruction in coastal areas



Earthquakes cause great damage

EARTHQUAKES AND LANDSLIDES

Sometimes there is a sudden shaking or trembling of the earth's crust. It is called an earthquake. Earthquakes are caused by the sudden movements or vibrations within the earth. Earthquakes of great intensity cause great damage to life and property. Our earth experiences countless earthquakes every year.



When a large amount of rock debris fall from high mountains towards a lower valley, it is called a **landslide**.

Earthquakes and landslides cause following destructions.

- ♦ Houses are destroyed. People and cattle are buried alive under the debris of broken houses, rocks and bricks.
- ♦ Earthquakes crack and break dams resulting in floods.
- ♦ Earthquakes have caused a lot of damage in Bhuj and Ahmedabad (Gujarat) and Uttarakha (northern mountains).
- ♦ Railway lines break, roads get damaged and houses collapse.
- ♦ Earthquakes destroy many cities of the world every year causing widespread death and destruction.



Landslides are common in hilly areas

Japan experiences the maximum number of earthquakes in the world. Every year it experiences hundreds of minor and major earthquakes. People in Japan do not make permanent houses due to fear of destruction. Earlier they made paper walls for their homes and kept minimum furniture. In villages they build houses of wood and bamboo while buildings in cities use a special earthquake proof technology. These cause less harm when they fall due to the earthquakes.



Epidemics are the result of unhygienic conditions

EPIDEMICS

Mostly epidemics are the post-calamity impacts. Epidemics occur when diseases spread on a very wide scale and cause a large number of deaths in a short period of time. Diseases like cholera, gastroenteritis, measles, plague and malaria break out as epidemics due to unhygienic conditions after disasters like floods, heavy rainfall and earthquakes.

MITIGATION

Various national and international non-governmental organizations (NGOs) take initiative to provide relief and support to the people affected by natural calamities. Some of the organizations that provide help and support with money and manpower are

- ♦ The Prime Minister Relief Fund
- ♦ Volunteers for India Development and Empowerment (VIDE)
- ♦ The Oxford Committee for Famine Relief (OXFAM)



unicef



Oxfam

For the Teacher : Give emphasis on post-calamitic impact and rescue measures.

C-3

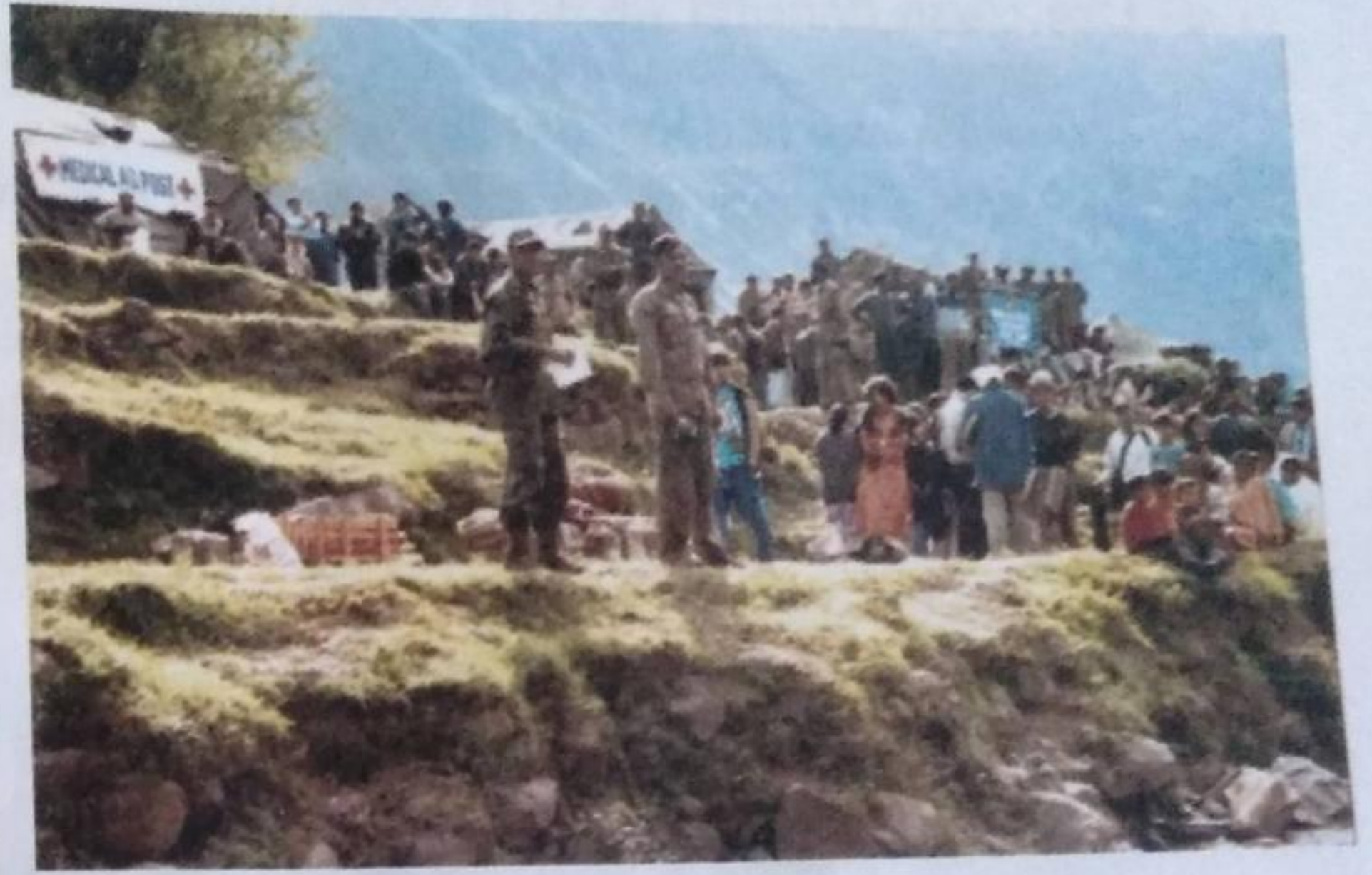
- The Red Cross Society
- United Nations International Children's Emergency Fund or UNICEF
- Child Relief and You (CRY)
- First Hand Foundation
- Fight the Drought Funds

Many other agencies of the United Nations work actively to provide relief and help in the process of rehabilitation of disaster-affected people. The United Nations Disaster Management Team (UNDMT) in India comprises the UNICEF, UNESCO, ILO, FAO and WHO. All these organizations come forward to help in times of need.

Role Of Armed Forces During Disasters

The armed forces play a vital role during disasters. They organize rescue operations and help in clearing roads so that relief can reach early. They send medical units during emergency and help in the distribution of food, medicines and other relief materials.

- The **air force** helps in dropping food, water and clothes in the affected areas.
- The **police** try to maintain law and order during a disaster to prevent anti-social elements from looting (theft) and destroying shops and homes.



Armed forces provide relief material during disasters

During calamities, business houses, schools and colleges help to collect money, medicines, clothes, utensils, food, etc. as charity for the relief of the affected areas.

Role Of Media And Others

- **Television, radio** and **newspapers** also play a major role in connecting people and communicating messages to the disaster-affected people. They inform people about the disaster, so that they can help as much as possible. Army, Doctors, engineers and firemen play a major role during disasters.
- Doctors provide special help at such times.

Role Of The Community



Natural disasters always cause severe damages to life and property. People lose their loved ones and need concern, love and care. People need someone to talk to, to sympathize with them and extend help. They need basic amenities like shelter, food, clothes and drinking water and medicines. It is the duty every community to arrange for food, water, shelter and clothing for the affected people.

C-4

Let us Revise



- ▶ The disasters such as floods, droughts, earthquakes, cyclones, tsunamis, landslides and the forest fire cause great loss of life and property.
- ▶ Floods generally occur when there is a heavy rainfall.
- ▶ In India, Bihar, West Bengal and the north-eastern States suffer from heavy floods.
- ▶ The excess rainfall causes floods whereas its scarcity causes droughts. This results in the scarcity of food grains.
- ▶ Cyclones occur due to the low-pressure systems towards which winds travel at great speed.
- ▶ When a large amount of the earth and rock fall from high mountains towards a lower valley, it is called a landslide.
- B-1 ▶ Epidemics occur when diseases spread on a very wide-scale and cause a large number of deaths in a short period of time.
- ▶ Many national and international non-governmental organizations (NGOs) work to provide relief and support to the people affected by the natural calamities.
- ▶ Television, radio and newspapers too play a major role in connecting people and communicating messages to the near and dear ones of the disaster-affected people.
- ▶ Natural disasters cause a lot of damage to life and property.

EXERCISES

A. Multiple choice question (MCQs).

Choose the correct option from the following :

1. Which of the following is not a natural disaster ?
(a) Flood (b) Earthquake (c) Accident (d) Cyclone
2. Which of the following statements regarding flood is wrong ?
(a) It occurs due to heavy rainfall. (b) It causes huge loss of property and life.
(c) It occurs only in hilly areas. (d) It can destroy agricultural products.
3. The scarcity of water causes;
(a) landslides (b) flood (c) cyclones (d) draught
4. Cyclones are frequent in the _____.
(a) hilly areas (b) coastal areas (c) plateau regions (d) None of these
5. Which of the following types of media help in connecting people during disasters?
(a) radio (b) t.v. (c) newspapers (d) all of these

B. Very short answer type questions.

1. What does epidemics mean ?
2. Name any two organisations that provide relief and support during natural calamities.



3. Who help in maintaining law and order during natural calamities? *Police.*
4. What is draught? *Scarcity of rainfall is called draught.*
5. Name the areas affected by the cyclones.

C. Short answer type questions.

1. What are the results of droughts?
2. What are the reasons of cyclones?
3. List five agencies that help during a natural disaster.
4. How a community can be helpful during a disaster?
5. Give a short note on the post calamity impacts.

D. Fill in the blanks.

1. In hilly areas, heavy rains cause flood.
2. The main occupation of people is agriculture in India.
3. There is a great difference between temperature and pressure conditions on land and sea in cyclone prone areas.
4. Earthquakes are caused by sudden movement within the earth.
5. Epidemics are caused due to unhygienic conditions after disasters.
6. Televisions, radio and newspapers play an important role in connecting people.
7. Natural disasters cause a great damage to life and property.

E. Correctly match List I with List II.

List I

- (i) Floods
- (ii) Droughts
- (iii) Epidemics
- (iv) Armed forces
- (v) UNDMT

List II

- (a) rehabilitation of disaster-affected people
- (b) cholera, plague, measles
- (c) rescue operation
- (d) excessive rain
- (e) scarcity of food