

4.

Disaster Management



Can you tell?

1. What events do you see in these pictures?
2. What would you have done in these situations?
3. Have you experienced such a situation yourself?
4. Why do these events occur?



Disaster



4.2 : Effects of the earthquake at Killari

- In July 2014, the whole village of Malin in Ambegaon taluka of Pune district was destroyed in a matter of minutes due to a landslide. Many got buried under the heaps of soil and stone and lost their lives.
- In November 2015, many people died due to the flooding caused by heavy rains in Tamil Nadu.



4.4 : The disaster at Malin village

What is a 'disaster'?

A sudden event that causes large scale damage to life, property and social aspects of a nation or society is called a disaster.



Use your brain power!

1. What disasters can occur in school or on the way to school?
2. According to you, what can be done to deal with such a disaster?

How and why do the following disasters occur?

1. Floods due to heavy rains.
2. An earthquake, lightning, a volcanic eruption, etc.
3. Forest fires
4. Increased risk due to high density of population in a limited area.
5. Rampant and irregular constructions.
6. Ecological imbalance.
7. Terrorism, riots and crimes resulting in bomb explosions, assaults, fire and accidents, etc.

Disasters are of two main kinds – man-made and natural.

Earthquakes

Movements in the interior of the earth release tremendous amounts of energy. This causes seismic waves leading to movements of the earth's surface like tremors, shaking, cracking up, etc.

Such vibrations or quaking in the earth's crust is known as an earthquake. It is believed that besides other causes, man-made causes like mining and construction of big dams can also lead to earthquakes.

Floods

A frequently occurring natural disaster in all parts of the world is 'floods'. Due to excessive rains in the same place, a river overflows its banks causing a flood. The water drainage system in big cities falls short when there is heavy rainfall, resulting in choking of gutters and drainage lines. Water overflows on to the roads and surrounding areas and even enters nearby houses.

Effects of floods

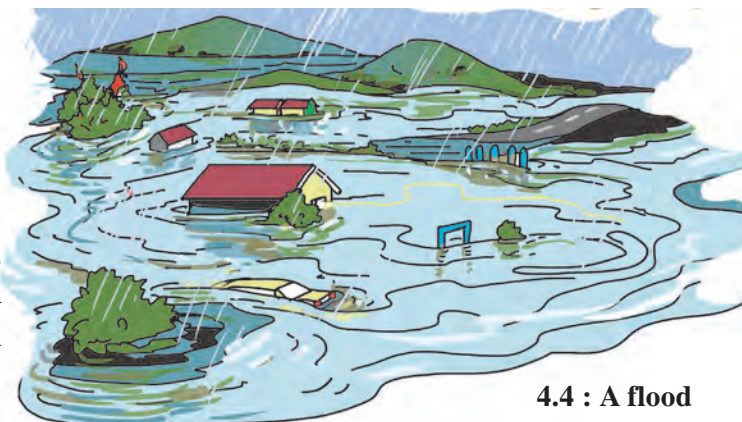
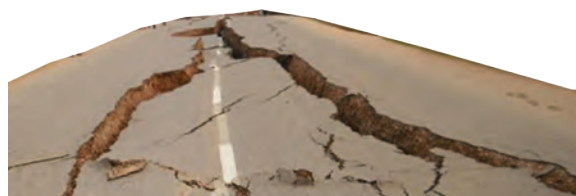
- Huge loss to life and property.
- Soil erosion.
- Destruction of standing crops.
- After-effects of floods, like spread of diseases and epidemics affecting the health of the people.

Classify the following disasters as man-made or natural : Fire, earthquake, leakage of chemical gases, storms, floods, tsunami, bomb explosion, collapse of a building, war, forest fire.

Man-made disasters	Natural disasters
Fire	Earthquake

Effects of earthquake

- Destruction of infrastructure, i.e., buildings, bridges, roads, railway tracks, etc.
- Change in the direction of the flow of rivers.
- Huge loss of life and property.



4.4 : A flood

Storms

The formation of high and low air pressure belts in the atmosphere causes changes in weather resulting in strong winds or storms.

Effects of storms

- Great damage in the storm affected region.
- Tremendous losses to life and property.
- Disruption of electric supply.
- Disruption of transport and communication.



4.5 : A storm

Forest fires

A forest fire is an uncontrolled fire in a forest, pasture or grassland due to natural or man-made causes. Forest fires spread at a tremendous speed.

Effects of forest fires

- Great damage to natural wealth and biodiversity.
- Pollution of air.



4.6 : A forest fire



Can you tell ?

1. How many children are there in your class at present ?
2. What would happen if five times this number sat in your class ?
3. Which kind of disaster can occur in an extremely crowded place ?

Disaster management

Community participation and disaster management are closely related. Taking steps to prevent disasters, making plans to face disasters and developing the capacity for that, is called disaster management.

To prevent or reduce damage caused by natural or man-made disasters, emergency planning and management is required.

Institutes at work

The National Disaster Management Authority was established in 2005. It undertakes planning and implementation of disaster management work.



Always remember...

During a disaster, helping and supporting each other is our moral responsibility.



Contact them for disaster management

Police : 100, Fire Brigade : 101, Ambulance : 102, Disaster management cell : 108



Remedial and preventive measures

Let us see what precautions we can take before or in the event of a natural or man-made disaster.



1. Keep watching TV and radio news and bulletins.
2. Use battery operated radios and mobiles.
3. Heed the warnings issued by the Meteorological Department carefully.
4. Use the website www.imd.gov.in
5. Landslides occur in hilly areas due to a cloudburst or heavy rains. On such occasions, do not take shelter at the foot of a hill.
6. During floods, do not linger in houses or areas on river banks. Seek shelter in other safe places. Move to safer places at a greater height. Do not step into the water currents or drive a vehicle into them.
7. During an earthquake, roads split open, the ground cracks, railway tracks get uprooted. Hence, when moving from one place to another, ensure that the road is safe further on.
8. Take shelter in relief camps as they provide medicines, food packets, drinking water, first aid, etc.
9. To get protection from fire, use fire extinguishers in public places like schools, hospitals, railway stations, etc.



4.7 : Remedial and preventive measures



First aid

In day-to-day life, sometimes, we have to face disasters or accidents of varying proportions. On such occasions, it is necessary to give some immediate aid even before medical treatment becomes available.

1. External bleeding

If a person is bleeding, first make him sit or lie down comfortably. Keep the bleeding part of the body above the level of the heart and clean it with water.

4.8 : Bleeding



2. Burns and scalds

Minor burns

- The injured part should be washed with water or held under water.
- Give the victim water to drink.
- Clean the wounds using a cotton swab soaked in an antiseptic solution.
- Do not apply oily ointments.
- Cover wounds using dry dressings.



4.9 : Immediate steps for burns

Serious burns

- Give emotional support.
- Cover the wounds with sterilised cloth.
- Remove jewellery, shoes, etc. if easily possible.
- Do not touch or burst the blisters on the skin.
- Do not apply oily ointments.
- Do not try to remove the cloth if it is stuck to the burnt skin.
- If the patient is conscious, give water to drink but avoid tea or coffee or other stimulating drinks.
- Get medical aid at once.

3. Sunstroke

When we work in the sun continuously for a long time, the body loses a lot of water and minerals. That is the reason for sunstroke.

Remedial measures

- Take the patient to a cool place or in the shade.
- Sponge the whole body with cold water.
- Place a cloth soaked in cold water on the neck.
- Give plenty of water or liquids like sherbets to drink.
- If the patient feels like vomiting make him lie prone, i.e., on his/her abdomen with the head turned to one side.
- Get medical help or shift the patient to a hospital.



4.10 : First aid for sunstroke

4. Snakebite

There are nearly 2000 species of snakes. Of these, only a few, like cobras, kraits, vipers and sea snakes are poisonous. Therefore, all snakebites are not fatal. However, fear causes severe psychological shock which can result in death. If you come across a snake, contact a 'Sarpa-mitra' rather than killing the snake at once.

Remedial measures

- Wash the wound with water
- Give emotional support to the patient.
- Tie a cloth tightly above the wound.
- Get immediate medical help.



4.11 :
First aid
for
snakebite



5. Dog bite

In a dog bite, there is a risk of infection through the blood, hence first aid and medical help are necessary.

Remedial measures

- Wash the wound with a solution of potassium permanganate or other antiseptic.
- Cover the wound with a clean and dry cloth.
- Get a doctor's help and an injection of the anti rabies vaccine.



What we have learnt-

- A sudden calamity is known as a 'disaster'.
- Disasters can be man-made or natural.
- Alertness and immediate action are necessary on such occasions.
- Effective disaster management and use of remedial measures can help reduce the losses.
- Every person should know about safety precautions and first aid.

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Photographs of
Killari earthquake
and Malin
landslide -
Courtesy :
Lokmat Library,
Aurangabad



1. What are the emergency contact numbers of the following ?

- (a) Police Control Room
- (b) Fire brigade
- (c) Ambulance
- (d) National level single emergency number for disaster relief.

2. What first aid will you provide in the following situations ?

- (a) Dog bite
- (b) Scratches/ bleeding
- (c) Burns/scalds
- (d) Snakebite
- (e) Sunstroke



3. Write the causes of the following :

- (a) Floods
- (b) Forest fires
- (c) Land slides/building collapse
- (d) Storms
- (e) Earthquakes

4. Answer the following questions.

- (a) What is meant by 'disasters' ?
- (b) What are the types of disasters?
- (c) What is meant by 'disaster management' ?
- (d) Which are the main components of disaster management ?

5. Find out about the work of a 'Sarpa-mitra'.

6. Find out what a first aid kit/box contains.

7. Suggest remedial measures for dealing with natural or man-made disasters.

Disaster	Remedy	Disaster	Remedy
Fire		Earthquake	
Building collapse		Deluge	
Road accident		Storm	
Flood		Tsunami	
War		Drought	
Bomb explosion		Landslide	

Activity :

- Compile information about measures taken for disaster management in your school.
- Make posters, advertisements, banners about disaster management.
- Find out the people/organisations that provide aid during a disaster. Obtain their phone numbers, addresses, etc.