

Natural Disasters in Sri Lanka

05

Teacher came to the class with a poster showing natural disasters and started the lesson exhibiting the pictures.



Fig. 5.1



Fig. 5.2



Fig. 5.3



Fig. 5.4



Fig. 5.5

Some of pictures related to natural disasters

Teacher

Dear children, what, can you say about these pictures?

Students

Teacher, Lightning, Floods, Drought

Teacher

Good. Now look into this table. This shows the natural disasters of the world.

Natural Disasters of the world

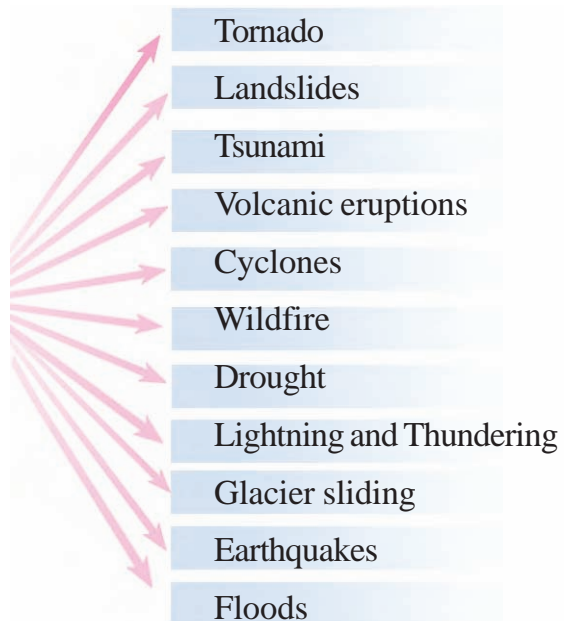


Fig. 5.6

Some of these disasters occur in Sri Lanka. But some like volcanoes, glacier sliding are not found in our country.

Teacher exhibited some paper cuttings of news items with pictures in the class to give a further understanding about natural hazards.

Drought in Hambantota

Heavy rainfalls in the last few days destructed about 50 houses, and damaged many houses and property by land slides and floods. Victims housed temporarily in temples. They are in need of food, clothes and medicine.



Fig.5.7: Floods



Fig.5.8: Drought

Drought in Hambantota

Hambantota area is suffering from a severe drought due to the failure of expected rain for the season. People have to go many miles in search of water to drink.



Fig.5.9: Lightning and thunder

School girl dead by Lightning

Heavy showers with thunder and lightning in the afternoon yesterday killed a 16 year old girl returning from school in Kalutara.

Cyclone

So many houses were destroyed, and a big damage to the environment was the result of the cyclone blown over Trincomalee yesterday.



Fig.5.10:Cyclonic winds

Loss of Lives and property by Tsunami

Many dead bodies were found in the beach after the devastating Tsunami waves. They are now at Karapitiya hospital. Many houses of fishermen were destroyed in addition to lives.



Fig 5.11: Results of the Tsunami Catastrophe

Saman

Teacher natural hazards disturb the people in Sri Lanka very often. We hear such news very frequently by media ?

Teacher

Yes my son, We have to be very careful of those with a proper understanding of such events. I will give you some more information about these natural disasters.

Drought

Failure to receive the expected rainfall in a given period cause droughts. Droughts bring bad effects to man as well as to the environment.

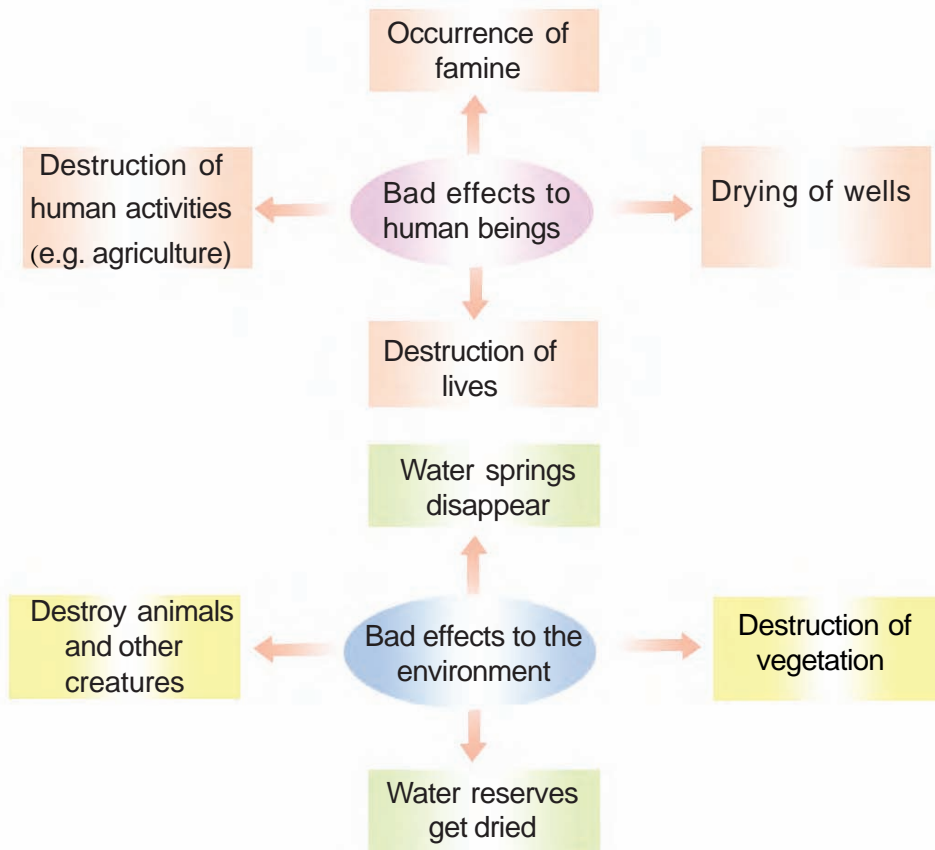


Fig 5.12

Areas such as Hambantota, Moneragala, Anuradhapura, Polonnaruwa, Mannar, Vavuniya and Puttalam are mostly prone to droughts.

Students must be well aware of droughts to minimise their bad effects in future. Awareness of conservation of water and environment is important for this purpose.

Methods of environment conservation

- Planting trees
- Refrain from clearing the forest cover
- Checking soil erosion on land

Methods of water conservation

- Consume water carefully
- Getting used to the methods of consuming less water
- Be aware of restoring methods of rain water

Droughts can be minimised upto some extent by protecting the existing forest cover and reforestation.



Activities

1. Consult elders and list the steps that can be taken to minimise the harmful effects of droughts.
2. Mark and name the districts where drought occurs in Sri Lanka.
3. Draw a picture showing a landscape affected by drought.
4. Explain how you and your family members can help the people in a drought affected area.



Student survey

Prepare a folder about droughts collecting pictures, photos and information from news papers and magazines.

Floods

Floods occur by continuous rain for a period of some time. There are some river basins and lowlands in Sri Lanka which get flooded more often. Rivers such as Nilwala, Kalu, Kelani and Gin overflow in rainy seasons. Because of this the districts like Colombo, Kalutara, Ratnapura, Galle and Matara get flooded very often. Besides Trincomalee, Polonnaruwa and Ampara districts also get flooded during the Northeast Monsoon.

Reasons for floods

- Unexpected heavy rainfall due to change in weather conditions.
- Clearing the forest cover in highlands leading to soil erosion.
- Building construction by filling the lowlands.
- Unauthorized building construction in river basins and mouths of rivers.
- Walls and other constructions blocking drainage.



Fig 5.13

- Refrain from walking on bare foot in the flood affected areas.
- Refrain from consuming food items gone under flood water.
- Destroy the germs of polluted water caused by floods.



Fig 5.14 : A Flood affected area.



Activities

1. Show few steps that should be taken after a flood by using posters.
2. State how you should act if any of your classmates is caught by floods.
3. Survey the human activities that bring bad effects to the environment of your area. Plan a programme with the help of the teacher to make the public awareness on the bad effects of the floods.

Cyclones

Cyclone is a low atmospheric pressure centres specially in Tropical areas. Cyclone has a low pressure centre to which winds blow from out side. Winds blow anti clockwise towards the centre in the Northern hemisphere and clockwise in the Southern hemisphere. When the temperature of a place goes up the pressure decreases and the air begins to rise. Winds from outside where pressure is relatively high flows to this centre in a circling way. The speed of these inward blowing winds increases rapidly and brings disaster to the lands that cyclone blows over.

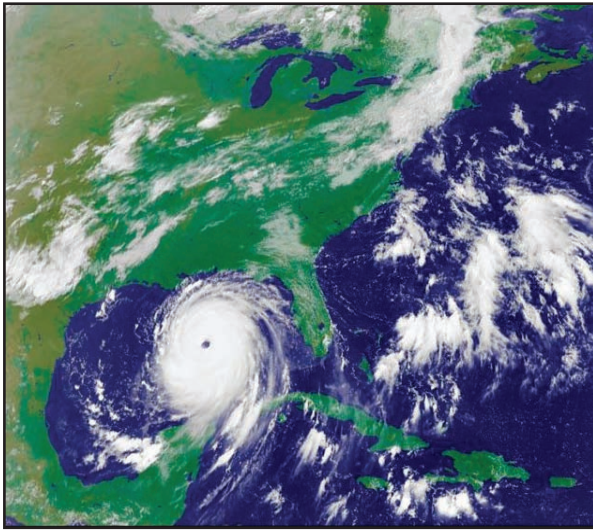


Fig 5.15: A cyclone



Fig 5.16 : Destroyed building.

Cyclones occur specially in October and November, because most of these cyclones originate during this period in the Bay of Bengal. They move through Eastern part of Sri Lanka and go out from Northwest. Mostly the effects of these cyclones are felt in the areas of East and North of Sri Lanka.



Fig 5.17: A destroyed area

Tornado is another type of weather condition. It brings severe disasters in a short period that it exists. But its effects are mostly limited to a small area. Tornadoes are not common in Sri Lanka. These Cyclones are given many terms in various regions. Some of them are Hurricane, Typhoon, Willy Willies, twister.



Fig 5.18: Tornado



Activities

1. List the harmful effects of cyclones to Sri Lanka.
2. Mark and name the areas prone to cyclones in Sri Lanka.



Student survey

1. Imagine that you are living in an area where cyclones may occur. State what you have to do in preparation to face such an event.
2. Collect pictures, photos and information about cyclones and prepare a folder.

Thunderstorms

When clouds rise up with dust and other elements, electrical discharges of positive and / or negative will originate by their movements. This negative and positive contact creates lightning and thunder. It may happen between clouds or between a cloud and the Earth.

Generally lightning and thunder can be seen in inter - monsoon periods. That is March - April and October - November.

Actions that could be taken to safeguard from lightning and thunder

- Stand back from open spaces at that time.
- Keep away from large or tall trees.
- Avoid being in places of water such as paddy fields.
- Do not travel in open roof vehicles.
- Disconnect the aerials and antennas of radios and T.Vs.
- Disconnect all the electricity connected equipment.
- Do not use land phones.
- Wear rubber soled slippers or shoes to avoid contact with the Earth.



Student survey

Note down what you should do when there is thunder and lightning.

Landslides

Parts of mountain slopes slip down due to heavy rainfall or by earthquakes. Those are called landslides. Clearing the mountain slopes, malpractices of land use and constructing buildings by cutting down slopes are some causes of landslides. Landslides often occur in the hill country of Sri Lanka in the districts like Badulla, Nuwara Eliya, Ratnapura, Matale, Kandy and Kegalle.



Fig. 5.19 : Destructions caused by a landslide



Fig. 5.20: A scene of a landslide

Signals of a landslide

- Heavy rainfall.
- Earth cracks and sinking.
- Sudden emergence of springs.
- Disappearance of old water springs.
- Downward movement of stones, gravel and soil.
- Cracks and springs emerge from floors.
- Surface cracks and water springs come out through cracks of house floor.
- Slow downward movement of stones in the slopes.

Steps to be taken to prevent landslides

- Proper planning when constructing buildings in mountain slopes.
- Cultivation according to contours.
- Cover the surface of the Earth by growing grass and other plants.
- Refrain from cultivating hill tops.
- Regularise the drainage system.
- Tighten the sliding soils with iron nets where land slides are possible.
- Build drains with steps for the water flow.



Activities

1. With the help of the teacher, organise a trip to an area where landslides have taken place.
2. List the damages by landslides.



Student survey

Prepare a poster giving information about landslides in Sri Lanka.

Tsunami

You may remember the vast sea flood caused by Tsunami waves on 26th December 2004. The word Tsunami was derived from two Japanese words. “Tsu” means bay, “**nami**” means waves. The meaning is unexpected high waves in a harbour. There are many reasons for a Tsunami.

Identified reasons for Tsunami

- Eruption of a volcano in the sea bed.
- Falling of a meteorite to the sea.
- Earthquake or landslide in the sea bed.



Fig.5.21 : An area destroyed by Tsunami

Safeguards from Tsunami

- Keep away from the coast and go to secure places as soon as you hear the news of a Tsunami.
- Inform the neighbours about it.
- Refrain from going to see the coast because water goes back before Tsunami. Go away as soon as possible.



Activities

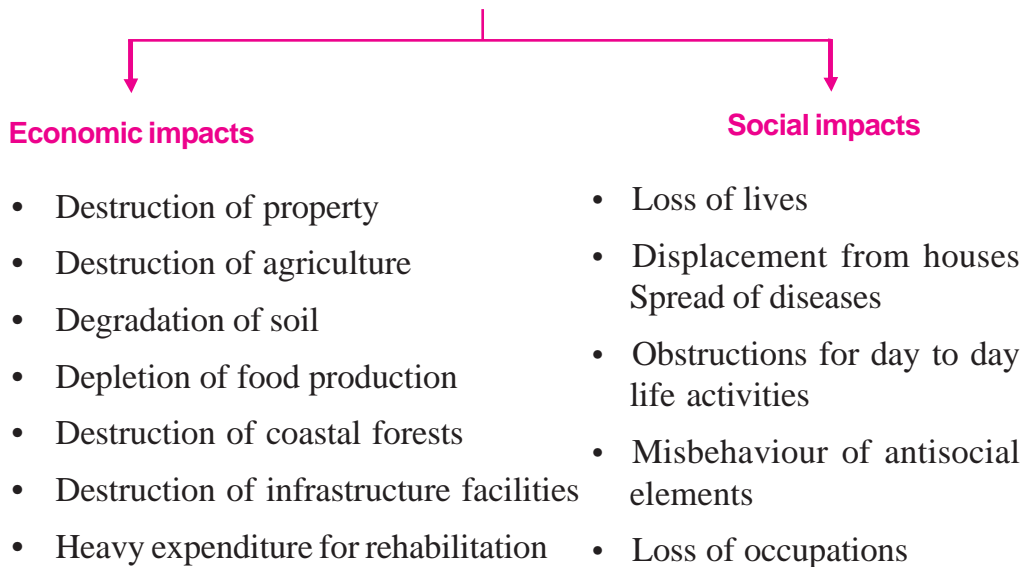
1. List what you can do after Tsunami in order to relocate the affected people.
2. Play a drama showing the humanitarian attitudes shown by Sri Lankans at the Tsunami incident.
3. Write what human attitudes you exhibited in that drama.
4. Organise an art exhibition on Tsunami.
5. Mark and name the countries affected by 2004 Tsunami (Sri Lanka, India, Indonesia, Thailand, Maldives, Malaysia, Somalia, Bangladesh, Myanmar, Kenya and Tansania).



Student survey

Prepare a booklet collecting information about the Tsunami incident that occurred in 2004.

Social and economic impacts of natural disasters



Activities that can be done to safeguard from natural disasters

- Providing temporary dwellings
- Help the victims to overcome their mental depression
- Take precautions for health problems
- Supply basic needs
- Take security measures
- Provide general facilities
- Reconstruct the dismantled infrastructure
- Provide mechanisms to identify disasters beforehand



Exercises

1. Name the natural disasters you have heard of.
2. What are the bad effects of droughts?
3. Name the districts that these disasters occur.
4. Name three towns that get flooded in Sri Lanka.
5. List the disaster conditions that arise by floods.
6. What are the reasons causing floods?
7. Name the months that cyclones may appear in Sri Lanka.
8. Write the names for cyclones used in other countries.
9. Explain what a Tornado is.
10. What are the symptoms that can be seen before a landslide?

A Summary of what you have learned

- Types of natural disasters of the world.
- Natural disasters that occur in Sri Lanka.
- Some river basins that get flooded in heavy rainy seasons.
- The areas prone to droughts due to lack of rainfall.
- Landslides usually occur in the hilly areas.
- The reasons for a Tsunami tide.