Disaster Management

Disasters can have various results; our normal day to day routine can be disturbed, our livelihood and property can be destroyed, we can be physically injured or we may even lose our lives. The mental stress and the disruption to economic activities caused by disasters can hinder the development of a country. Therefore, the harmful results of disasters can affect an individual, family, region, country or the whole world on different scales. Further, it can cause socio economic and political issues at individual, national or global level. "The Asian Tsunami catastrophe" which occurred on 26th December 2004 can be mentioned as an example of such a disaster. Although it is impossible to prevent disasters completely the damage caused and possible damage can be reduced. This is called ‘disaster management’. An institutional framework of government and non-governmental bodies have been established and a set of laws and regulations to manage disasters have been put in place in many countries including Sri Lanka. Further, various books, magazines and workshops related to disaster management are widespread today. There are modern techniques to avoid disasters. You can improve your knowledge about these facts by studying this chapter. It will give you the skills to protect your life and property and that of others from disasters.

4.1 Let us be conscious of accidents and disasters

In our lives we may have to face accidents and disasters at any time in any place. The normal daily life is disturbed due to accidents and disasters. Therefore, we should always be vigilant about the possibility of accidents and disasters. We have to have an advanced knowledge of occurring accidents and disasters. You will have to face such situations at home, in school or in any place outside. Although we cannot prevent accidents and disasters, we should develop the ability to identify them in advance. To develop this consciousness, we have to be always vigilant of the things happening around us. Further, we should know how to react or behave in case of an accident or disaster.
4.2 Types of accidents

Let us try to understand the types of accidents we face in our day to day lives with the help of the newspaper extracts and photographs given below.

- The number of people admitted to hospital due to stray dog bites is on the increase.
- Meteorological Department alerts against the hazards of lightning
- Roads in hill country blocked due to earth slips
- A technician dies by contacting live electric wires when fixing an antenna
- A football player injured by a kick of a player of the opposing team
- 20 people critically injured in a train accident
- Bus goes off road due to a pressure bomb
- A house catches fire due to an electricity leakage
- A ship carrying goods is wrecked
- 100 families become homeless due to sea erosion
- A steam boiler explodes killing a rice mill worker
- A school girl hospitalized due to burns when a bottle containing chemicals exploded.
Carefully observe the photographs and extracts given above. You would have got an idea of the accidents and disasters we face in our day to day life. You can see that accidents can occur at different times in different ways. It is impossible to mention a definite place where accidents and disasters occur. Accidents can occur at home, school, your surroundings, work place, road, factory, etc. Further, accidents can occur at any time of the day. However, we should not neglect or delay our work thinking of possible accidents. We should understand that accidents can take place around us and we should know how to act rationally and intelligently in such situations.

By whatever names such as accidents, catastrophe, damage, disaster are known, all these accidents and disasters have harmful effects on us.

An accident is an incident which causes injury, death to a person or a group or destruction of property in an unexpected instant.

Driving fast, operating machines carelessly, working with chemicals can cause accidents. When the number of people affected by an accident or the effect of it is widespread, it is called damage. When the destruction caused is more widespread and complex it is called a disaster. A catastrophe is a phenomenon which causes harm to a country and nation and exerts influence economically, socially and politically. That is why the Tsunami which occurred in 2004 is called the "Tsunami Catastrophe."
4.3 Occasions when accidents can occur

Steps taken to prevent accidents due to crackers in the festive season.

Perhaps you may have seen this type of newspaper headings many times. Since more accidents occur during the festive seasons, reports with this type of heading are published in newspapers to make people aware of the possibility of accidents. People use crackers and various fireworks during the Christmas and New Year season to express their joy. There are reports of many people being physically injured by using these carelessly.

The use of electricity for various decorations during festival seasons should be done with great care.

In houses where there are small children, electric switches should be beyond their reach. Various medicines, warm items, electrical equipment and breakable objects should be kept away from little children. People who live in flats too should be very careful of the security of little children. Further, during the heavy rainy seasons, we should be very careful as thunder and lightning can cause accidents and disasters.

Moreover, when we consider accidents and disasters, injuries caused by animals, especially serpents, should be mentioned. The number of people who die of serpent bites have gradually increased and so have the number of people who suffer from the side effects of such injuries. Therefore, people should be very careful when they go out at night.
At present the number of people who die and are injured due to the attacks of wild elephants have increased. Therefore, people who live in areas where wild elephants haunt should be aware of how they can prevent such attacks.

People go on picnics with the intention of having fun and spending their leisure effectively. Careless behaviour on such occasions is a major reason for accidents and disasters. There are reports about people who have drowned when bathing in unprotected places, and those who have had accidents due to speeding or the loud sound of the cassette or using cellular phones while driving. On educational trips or picnics, we get not only fun and happiness, but also knowledge. To experience these things, we should behave intelligently and carefully. We should be mindful so as to avoid making the journey or picnic end in tragedy. Practices such as bathing in unfamiliar places and lodging in insecure places should be done with utmost care.

Activity II

Read the incident given below.

Sumiyuru is a child in Grade 9. His house is situated beside a stretch of paddy fields. There is a stream on the edge of these paddy fields and it overflows during the rainy season. When it rains heavily, even the paddy field gets flooded and the whole area seems like a reservoir. Once when the paddy field got flooded, Sumiyuru with his two friends Kolitha and Raj decided to go rafting using the trunks of banana trees. Even though they managed to enjoy this ride which they were taking without the permission of their parents, the raft turned upside down before long, when it struck a log which was submerged in the water. Fortunately, this accident was noticed by two young men who saved the lives of the children, but, they had to be hospitalized for several days.

What is your opinion about the behaviour of these three boys?
Further, people who visit places like Sigiriya and Ambuluwava are subject to the attacks of wasps and bees quite often. What often happens in such situations is that others too have to suffer due to the improper behaviour of one group of people.

### 4.4 Accidents and disasters which occur due to natural and human activities

Accidents and disasters can be categorized according to the factors due to which they occur. Such a categorization is given in table 4.1

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Types of disasters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>Volcanoes, earthquakes, Tsunami, earth slips, hurricanes, storms, tornados, floods, drought, lightning, bush fire</td>
</tr>
<tr>
<td>Biological factors</td>
<td>Epidemics, invasions of parasites, attacks by wild animals</td>
</tr>
<tr>
<td>Human activities</td>
<td>Accidents, road accidents, city fire, collapse of buildings, poisoning, breathing poisonous gas</td>
</tr>
</tbody>
</table>

- **Natural disasters**

Natural disasters can cause danger to human lives. These disasters can be a threat to the day to day life of people. We should understand the developments that occur prior to these disasters. For example think of a moment when a thunderstorm occurs. If you can hear thunder, the first thing you have to understand is that you are in an area where you can be affected by lightning. Then you have to act fast. You have to take precautionary measures such as going into a safe place without remarking in an open area, avoiding the use of metal tools like mamoties and crow bars, disconnecting electric equipment like radios and televisions from antennas and switches and avoiding use of phones or cordless phones.
Likewise, we should understand the possibility of the occurrence of strong winds, earth slips and floods during rainy seasons and be prepared to face them. As there can be power failures during such times, we should plan protective measures. For example, it is advisable to keep candles, torches, and boxes of matches ready. It is possible to minimise the effects of accidents and disasters by being concerned about the precautionary measures that should be taken depending on the situation.

- **Accidents which occur due to human activities**

  Damage and disasters can occur due to human activities as well. However, extensive damage caused by human activities occur slowly. Further, human activities can intensify the effects of natural disasters. For example, felling of trees, destruction of forests can result in droughts in the long term. Likewise, destruction of coral reefs, limestone, and mangroves can enhance the effects of coastal erosion and disasters like the Tsunami.

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**Activity III**

The incident given below is an extract from a weekend newspaper. Read it carefully.

People who live in a particular village fulfil all their needs for water from a certain stream. This stream which flowed along the edge of a stretch of paddy fields gave them water to drink, bathe and to rear their animals as well. People began to suspect that the waste matter of the factory, which was built in the village three years ago, was added to this stream. Now it is reported that the colour of the water in the stream has changed, many types of fish have died, and children who use water from this stream suffer from a skin disease. The villagers say that if this situation prevails, it can result in a disaster.

i) According to your view, what is the reason for this disaster?

ii) Suggest legal action that can be taken to avert this situation.
4.5 Let us identify accidents which occur due to food and medicine

When speaking of accidents and disasters we should pay attention to accidents which can occur due to food and medicine too.

You must have seen such headings in newspapers. People have not only been hospitalized but also died of food poisoning. Food poisoning can occur when food is not washed and cleaned properly, not cooked properly or due to the consumption of stale food. Further, various complaints related to food can occur when organic food is ignored and instant or prepared food is constantly consumed.

Accidents can happen when medicine is not packed carefully or when pesticides are not stored appropriately. Especially if there are children in the house, medicine should be stored out of their reach. When medicine is given to elders and children, accidents can be prevented if the proper dose is administered to them by an adult who has knowledge of it.

Be careful of the following facts when using medicine

- Do not use medicine without a doctor’s advice.
- Take the proper dose.
- Store medicine in a suitable place after labelling them carefully.
- Be mindful of the date of expiry.
- Store medicine at the proper temperature.
- Pay attention to the instructions given on the carton before using the medicine.

Accidents can happen due to improper habits and behaviour also. For example, using mobile phones while driving, over speeding, smoking, and unhealthy food habits can cause accidents. Consumption of food which contain excess oil, carbohydrates, sugar, and also avoiding physical exercise invites the contraction of diseases. We should be careful to reduce the effects of such perils.
4.6 Let us prevent accidents and disasters

It was mentioned above that the traces of accidents and disasters are everywhere around us. However, the alertness and preparedness which comes with the knowledge and awareness of these accidents and disasters will help their prevention and minimising their effects. Given below is one example for you to understand how to behave in such a disaster.

Disaster – Whirlwind

Prior to Whirlwind

- Be watchful of the protection of the roofs and walls of houses.
- Cut the branches of tall trees which can damage houses.
- Store in a safe place things which topple due to strong winds.
- Identify a place of high elevation and the possible route to reach that place in case of floods.
- Collect the following things for an emergency:
  - Drinking water, first aid kit, dry food items, torch, batteries, boxes of matches, candles, essential phone numbers
- Do not send small children into the open.
- Park vehicles in a place where there is a solid roof.
- Cover important documents, clothes, and accessories in polythene and keep them at a higher elevation.

During whirlwind

- Disconnect all electrical equipment.
- Stay indoors.
- When the wind abates, do not think that the whirlwind has ceased.
- Be patient till you are informed that the effect of the whirlwind is over.
- Stop vehicle immediately if you are driving.
After the whirlwind

- Avoid using wet electrical equipment.
- Listen to the radio for more information.
- Be careful of damaged electric cables, bridges and buildings.
- Do not go out till you are assured of security.
- Do not drink contaminated water.

4.7 Important institutions which act in instances accidents and disasters

It is important to know the institutions which act in instances of accidents and disasters. The support given by these bodies in an accident or disaster is quite important in managing disasters. In many countries as well as in Sri Lanka an institutional framework consisting of governmental and non-governmental bodies have been set up with regard to disaster management. Given below are some of these institutions.

- The hospital/emergency unit.
- The police station.
- Fire Brigade.
- Disaster Management Centre.
- St. John’s Ambulance Brigade.
- Saukyadana Movement.
- Civil Security Force (CSF).

4.8 How you should act in an accident or disaster

You now have some understanding of accidents and disasters we face on various occasions. You should be aware of how to act correctly on such occasions. The most important thing a person has to do in an accident or disaster is to stay calm and act sensibly. As we have seen, people try to flock together to see what has happened in an accident or disaster. In such an instance, for example in a vehicle accident, we should allow the injured to be taken to hospital and for the police to proceed with legal action. These functions are obstructed if people gather to see what has happened.
Further, most of the natural and man-made disasters can occur as a chain of incidents with no immediate end. An earth slip or a bomb explosion can be mentioned as an example. If people gather in such places, there is the possibility of more people becoming victims of the disaster. Therefore, we should avoid gathering in such places unnecessarily.

Being constantly in touch with media channels, can help prevent accidents and disasters. It is appropriate to pay attention to the weather report daily. Further, the instructions given us should be followed as soon as possible. Sometimes, if we are sufficiently observant of the environmental changes occurring around us, there is the possibility of preventing some accidents and disasters. For example, if we can identify the changes happening in an area prior to an earth slip, we can minimise the loss of lives. Most of these environmental changes are felt quicker by animals than human beings. Therefore, it is important to be observant of the behaviour of animals as well. For example, the number of animals that died in the Tsunami catastrophe has been reported to be much less than the number of human beings who died. The reason pointed out by the scientists for this is that the animals have felt the changes taking place prior to the Tsunami.

Further, even in the natural environment plants show reactions to certain types of weather. At the time when our ancestors had a very close relationship with nature they were quite aware of these changes. They recognised the croaking of frogs, emerging of swarms of dragon flies, flying of swallows as signs of rain.

We all should develop the skill of taking prompt action and decisions suited to the situation in case you or any other person were to face a calamity. In such an instance we have to face problems such as

- Is it necessary to give first aid?
- Should the victim be directed for treatment?
- Who or which institutions should be informed?
- How can the identity of the victim be established?
If we can be tactful as well as sensible and behave intelligently when disasters occur, we will be able to manage accidents and disasters properly. This will lead to saving your life and property as well as that of others. Further it will enable you to lead a healthy and fulfilling social life, and contribute to creating a country with a stable, strong economy.

**Activity V**

Imagine that you have got news that a three wheeler had collided with a van near your house and that the three wheel driver is trapped inside it. Explain how you will act immediately with the support of your neighbours.

**Summary**

- ★ In our lives there is always a risk of the possibility of accidents at any moment or at any place.
- ★ We cannot completely prevent the occurrence of accidents and disasters.
- ★ If we develop an awareness of accidents and disasters, we can prevent them and minimise their effects.
- ★ It is the duty and responsibility of a good citizen to act intelligently in an accident or disaster.
- ★ If you assist in disaster management by being sensitive to accidents and disasters, you will contribute to the sustainable development of the country.

**Assignment**

Form five groups and prepare a handout to make people aware of the way they have to behave in the event of the accidents given.

1. Earth slips  
2. Floods  
3. Lightning  
4. Chemical poisoning  
5. Vehicle accidents

Pay attention to the aspects below when you prepare them.

How to prevent them, how to be prepared, how to act during the disaster, how to act after the disaster.