

# 30. Human Impact on Environment

Environmental problems may arise due to natural disasters or due to human activities.

## Environmental Problems

Natural Disaster	Human-made Disaster
• Floods	1. Deforestation and Loss of Ecosystem
• Cyclone	2. Air, Water, Soil and Noise Pollution
• Earthquake	3. Depletion of Fossil Fuel
• Forest Fire	4. Biomagnification
• Tsunami	5. Depletion of Ozone Layer
• Landslide	6. Global Warming
• Cloud Burst	7. Waste Generation
	8. Eutrophication

### Build Your Understanding

- Prevention of natural disasters like earthquake, cyclone, tsunami, cloud-burst is not within human control, but an early warning system could help in saving lives and property.

- Constructing flood proof and earthquake proof buildings can help in minimizing loss to lives and property due to floods and earthquakes.
- Forest fires are a major cause of forest degradation and has an adverse ecological, social and economic impact. Natural forest fire caused by lightning striking dry trees or by the heat generated in the litter and other biomass in the dry summer months is not in our control but definitely forest fire caused by human negligence can be avoided.
- Lighting a matchstick or cigarette should be completely banned in a forest. Deforestation by humans has contributed towards soil erosion and global warming.
- Increased population, mindless over-exploitation of resources and human negligence has adversely affected our environment.
- Over exploitation of resources has resulted in loss of ecosystem, depletion of fossil fuel, pollution, global warming, ozone layer depletion and photochemical smog.
- The excessive use of fertilizers and pesticides to increase agricultural yield has led to **eutrophication** and **biomagnification**.

### • Pollution—Causes and Effects

Type of pollution	Causes	Effects
1. Air	Gases from Vehicle or factories exhaust, Forest fires, volcanic eruption, dry soil erosion other natural sources. Building construction and demolition	Pollutants in the air make it hard for people breathe causing long diseases. When it rains the chemicals in the air cause acid rain killing aquatic the animals and plants, and monument.
2. Water	– Increased sediment from Soil erosion – Improper waste disposal and littering Organic Material decay in water supplies	Decreasing the quantity of available drinking water – Toxic waste and Oil spills cause many animals and plants to die
3. Land	– Thousands of waste and sewage fills – Non Sustainable farming practices, such as the heavy use of inorganic pesticides – Strip mining, deforestation – Household dumping and littering	lead to poor growth and reduce crop yields, loss of wildlife habitats, soil erosion

✓ **Maximise Your Marks**

1. Do you think disposable paper cups are better than disposable plastic cups or earthen cups for having tea in trains? Give reasons in support of your answer.
2. If we are able to generate waste which is all biodegradable, then do you think there will be no adverse effect on the environment? Give reasons in support of your answer.

★ **Stretch Yourself**

- **Biomagnification:** Harmful chemicals used as pesticides enter food chain and accumulate in larger quantities as you go up the food chain.
- **Eutrophication:** Chemical fertilizers washed from fields into a water body promote growth of algae which deplete the water body of its oxygen. Other animals in the water body die, as a result.
- Agricultural and animal wastes like leaves, twigs, hay, dung etc. are **biodegradable wastes** which can be recycled into useful products and thus help in the conservation of our natural resources.
- **Non-biodegradable** waste like plastics, glass, electronic wastes etc. cannot be easily degraded and should be carefully disposed off to avoid causing serious environmental problems
- **Global warming** is caused by high concentration of carbon dioxide accumulated in the environment, which traps heat and increases atmosphere temperature.
- Ozone provides a protective layer against the ultra-violet rays coming from the sun. The excessive use of chemicals like CFCs have resulted in the **depletion of the ozone layer**.

? **Test Yourself**

1. Which of the following can you do to save energy and also reduce your impact on global warming?
  - a. Walk or ride a bicycle if you are travelling short distances.
  - b. Set your computer to an energy saving mode that reduces its electricity use while you are not using it.
  - c. Turn the lights off when you leave a room.
  - d. All of the above.
2. What are the materials that do not decay and remain in the environment called?
  - a. Biodegradable wastes
  - b. Garbage
  - c. Non-biodegradable wastes
  - d. Solid wastes
3. Given here are pictures (*a, b* and *c*) of some of the natural and human-made disasters. Name the disaster below each picture and write what disaster management steps will you take in each case.



- a. ....  
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 .....



b. ....  
.....  
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c. ....  
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