

# **NIOS lesson adaptation project**

**By EMBRACE Volunteers**

(A community initiative of Harchan Foundation Trust)

## **Chapter**

# **ENVIRONMENT**

(Printable Version)

- **Simplified Lesson**
- **Previous Year Questions with Answers**
- **Terminal Questions**

This project is aimed at supporting children with different needs. Information provided is adapted to the best of knowledge by the volunteers. For complete information please refer to the NIOS resources in <https://www.nios.ac.in/online-course-material/secondary-courses.aspx>.

## LESSON 6

### ENVIRONMENT

Environment is the surroundings or conditions in which a person, animal or plant lives.

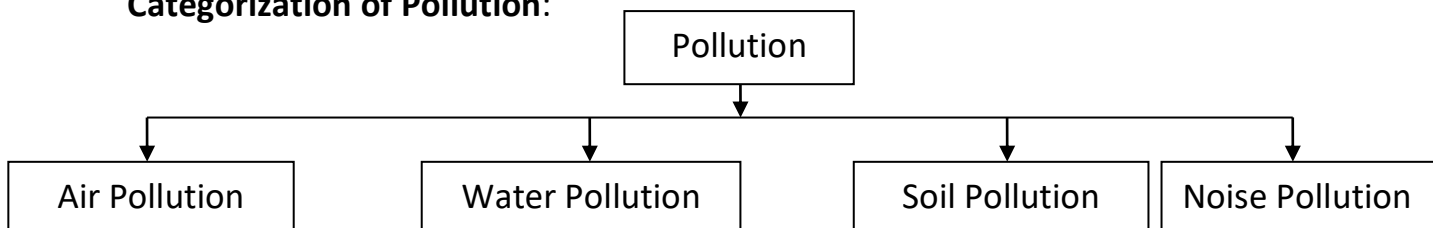
#### **Pollution and Pollutant:**

**Pollution:** Addition of any substance to the environment in excess which makes environment impure.

**Pollutant:** The substances which causes pollution is known as pollutant. It is defined as “As a constituent in the wrong amount, at a wrong place and at a wrong time”

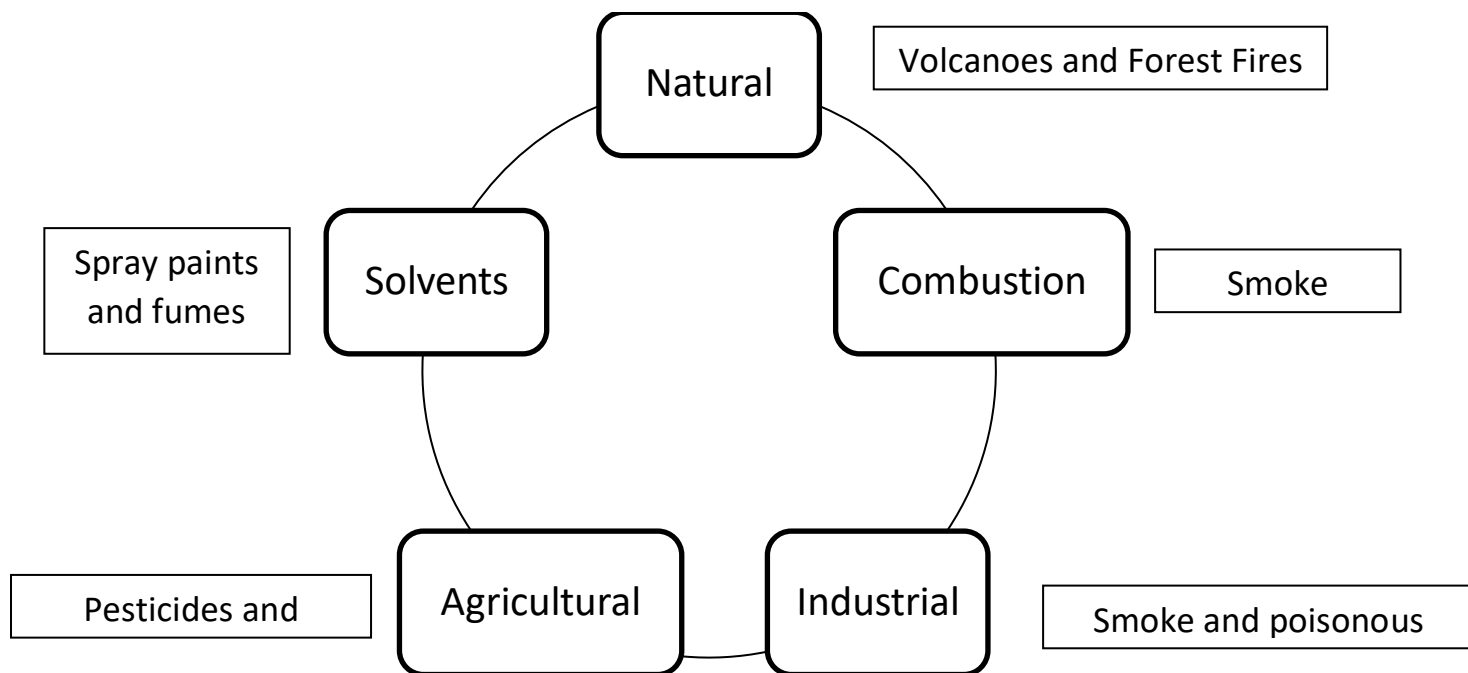
Examples: Dust, Dirt, Garbage, chemicals, and industrial wastes.

#### **Categorization of Pollution:**

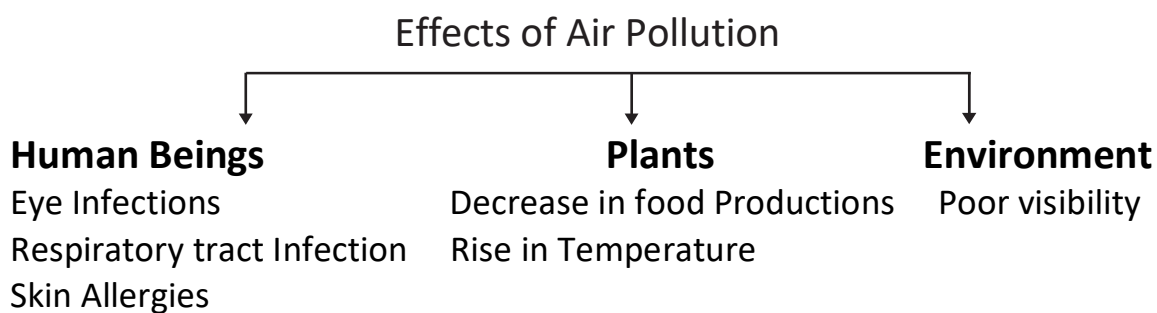


#### **Sources of air pollution:**

- Natural.
- Combustion.
- Industrial.
- Agricultural.
- Solvents.



### Effects of Air Pollution:



### Ways to control Air Pollution:

- Use smokeless Chulha. Provide tall chimney.
- Use Bio gas
- Use of Solar cooker
- Factories should have chimney filter.
- Use unleaded petrol and CNG
- Planting trees.

### Water Pollution:

We say water is polluted when

- It is colored.
- Have suspended particles.
- Foul smell and bad taste.

### Sources of water pollution:

Domestic wastes	Industrial waste	Agricultural waste	Oil Spills
<ul style="list-style-type: none"><li>• Bathing animals and washing clothes in harvested water</li><li>• Washing self after defecation in harvested water.</li><li>• Disposal of garbage in water</li></ul>	<ul style="list-style-type: none"><li>• Waste material which comes from factories.</li><li>• Harmful and toxic substance flows to river, ponds and sea.</li></ul>	<ul style="list-style-type: none"><li>• Chemical fertilizers and pesticides usage</li><li>• In case of rain, runoff from these fields gets mixed with water</li></ul>	<ul style="list-style-type: none"><li>• Oil spills from oil tanker.</li><li>• Spills over large areas of sea.</li></ul>

### Effects of Water pollution:

- Causes diseases like cholera, typhoid, diarrhea and dysentery.
- Bathing in polluted water causes skin diseases and allergies.
- It affects the living of plants and animals such as fish, seaweed and sea plants.

### Ways to control water pollution:

- Sewage water is not thrown into sources of water.
- Industries should not be allowed to throw their waste to water source.
- Stop open defecation.
- Dumping pits should be away from source of water.
- Never dip your hand in drinking water, use a ladle.

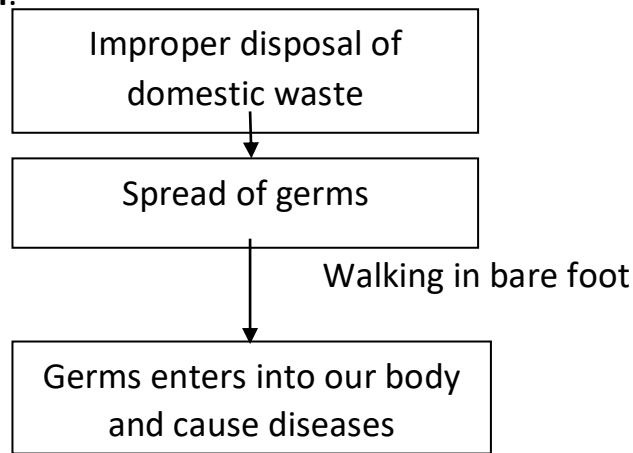
### Soil Pollution:

- ❖ Is defined as change in physical, chemical and biological nature of soil, which has its harmful effect on human beings.

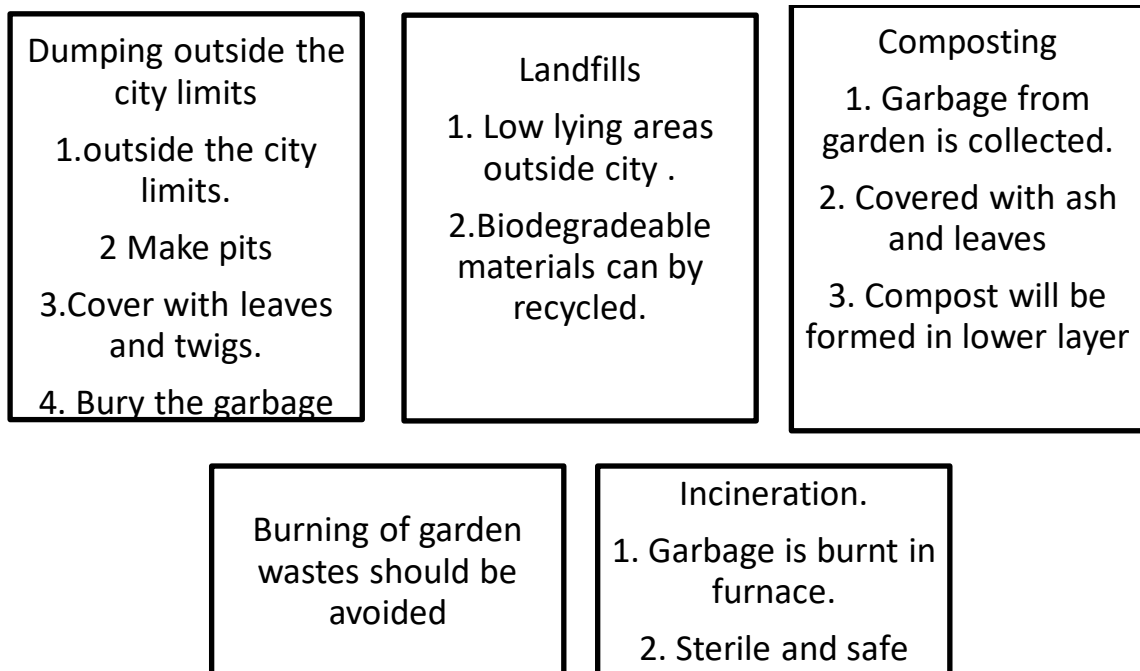
### How soil gets polluted:

- ✓ Waste from factories which has chemicals and metals makes soil infertile.
- ✓ Insecticides, pesticides and fertilizers they penetrate into plants or a fruit which is not good for the digestive system.
- ✓ Open defecation and urination.
- ✓ Spitting

### Effects of Soil Pollution:



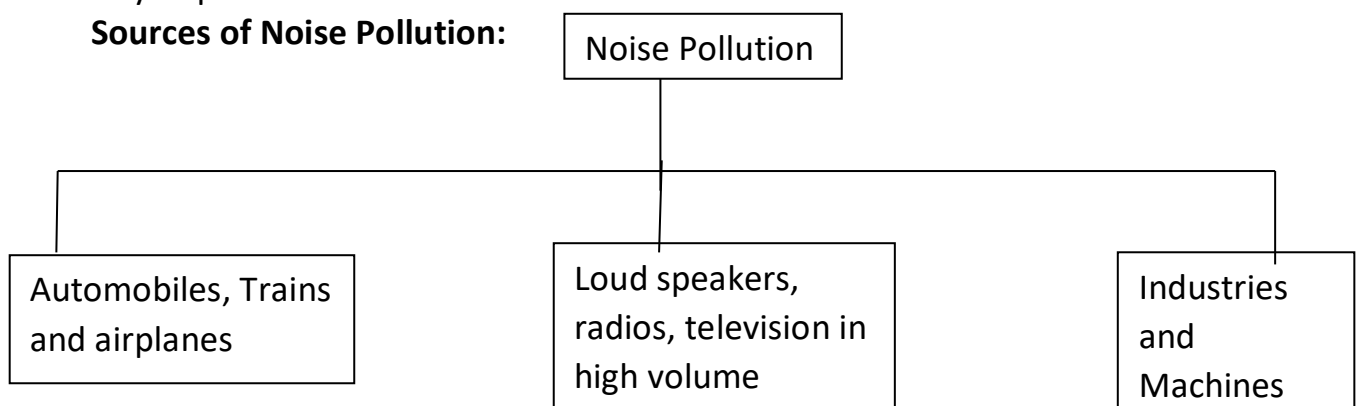
### Ways to control soil pollution:



### Noise Pollution:

Any unpleasant sound is called noise.

#### Sources of Noise Pollution:



#### Effects of Noise Pollution:

- ❖ Disturbs us.
- ❖ Strain our nerves

- ❖ Headache
- ❖ Mental disturbance
- ❖ Stress
- ❖ Mental irritability.
- ❖ Affect hearing ability.

**Ways to control Noise Pollution:**

- Use low volume.
- Avoid the use of loud speakers
- Talking in low tone.
- Use vehicle horns when it is necessary.
- Get silencers fitted to engine of vehicle.
- Factories away from residential area.
- Airport away from city limits.

## **PREVIOUS YEARS QUESTIONS**

### **One mark questions:**

**1) An example of non-biodegradable waste product is:**

- (a) Paper      (b) Old cloth  
(c) Fruit peels   (d) Plastic

**2) Water is said to be polluted if it:**

- (a) Is colorless   (b) Has no smell  
(c) Has suspended particles   (d) Is tasteless

**3) Government has made it mandatory for all factories to fit filters in their chimney's this is done to reduce which type of pollution?**

- (a) Air                                      (b) Noise  
(c) Water                                    (d) Soil

**4) Water is safe for human consumption only when it is free from:**

- (a) Floating substances   (b) Unwanted smell  
(c) Micro-organisms      (d) All the above

**5) During the day plants give out:**

- (a) Oxygen                                      (b) Nitrogen  
(c) Carbon dioxide                            (d) Carbon monoxide

**6) Cheap and environment friendly way of disposing of dried leaves is:**

- (a) Bury the leaves in a pit and make manure  
(b) Incineration  
(c) Dump it outside the city

(d) Take them to land refill

**7) Which of the following is an example of non- biodegradable product?**

(a) Tin

(b) Wool

(c) Cotton

(d) Flower petals

### **Two-mark questions:**

**1) Suggest two measures you can take at your own level to control air pollution.**

Ans: Use biogas which is a smokeless fuel.

Use solar cookers at home which use heat from the sunlight.

**2) What are the ill effects of loud noises on our health?**

Ans: Affect the hearing ability of an individual.

Strain our nerves, cause headache and mental disturbance.

**3) List four ways by which you, as an individual can contribute in controlling air pollution in your village/town.**

Ans: Use smokeless Chulha.

Use biogas which is a smokeless fuel.

Use solar cookers at home which use heat from the sunlight.

Garbage should not be burnt, disposed through sanitary landfills

**4) Suggest any two measures you can take at your level to keep your surroundings green.**

Ans: Educating ourselves and surroundings to keep our surroundings clean.

Proper disposal of garbage

Growing plants.

**5) Tell four ways the public can help in controlling soil pollution at their level.**

Ans: Limited use of insecticides and fertilizers

Use of environment – friendly products.

Use of sanitary latrines.

Dumping the garbage outside the city.

Composting

**6) What is soil pollution? Name two soil pollutants.**

Ans: Change in the physical, chemical and biological nature of soil which has harmful effect on human beings and other living beings is called as soil pollution.

Fertilizers, insecticides, pesticides.  
Garbage left on the soil.

**7) Explain composting as a way of disposing garbage.**

Ans: The garbage collected from the gardens is put into a pit in one corner of the garden.

At the end of each day, it is covered with ash and leaves.

Gradually the lower layers are converted into compost or manure.

This manure is used for gardening.

**Three-mark questions:**

**1) Suggest six ways to control water pollution.**

Ans: To make sure that untreated sewage water is not thrown into the source of water.

Not to allow industries to throw untreated wastes into the river or pond.

To discourage defecation in open and near the water source.

To keep latrines, soakage pits, dumping grounds away from sources of water.

Not to use rivers for disposal of garbage.

To store water in clean containers.

**2) Identify three sources of noise pollution in your area. Suggest three remedies to control it.**

Ans: Noise produced by automobiles, trains and airplanes.

Noise produced by loudspeakers, radios and televisions played at full volume. Noise produced by industries and machines.

**Remedies to control:**

- Playing radios and TV's at low volume.
- Avoid loudspeakers.
- Using vehicle horns only when it is necessary.
- Talking in low tones.

**Four-mark Questions:**

**1) Enlist any four ill effects of Air pollution on the human beings and environment.**

Ans: On Human beings:

Affects respiratory system, leads to diseases like asthma and bronchitis.

Certain types of skin and eye allergies like rashes and redness are also caused.

- On Environment:
- Ozone layer depletion.



- Serious accidents are caused due to poor visibility, rise in temperature, destruction of vegetation and natural beauty.

**2) Give four suggestions to control noise pollution in your neighborhood.**

Ans: Playing radios and TV's at low volume.

- Avoid loudspeakers.
- Using vehicle horns only when it is necessary.
- Building factories away from residential areas.
- Building airports away from city limits.
- Getting silencers fitted in the engine of vehicles.

## **TERMINAL QUESTIONS**

**1. Define the terms pollution and pollutant.**

**Pollution:** Addition of any substance to the environment in excess which makes environment impure.

**Pollutant:** The substances which causes pollution is known are pollutant.

**2. What are the sources of air pollution?**

**Sources of air pollution:**

1. Natural.
2. Combustion.
3. Industrial.
4. Agricultural.
5. Solvents.

**3. How can you control soil pollution?**

1. By dumping garbage outside city limits
2. Landfills
3. Composting
4. Stop burning of garden wastes.
5. Incineration

**4. What are the effects of noise pollution?**

Effects of Noise Pollution:

- ❖ Disturbs us.
- ❖ Strain our nerves.
- ❖ Headache.
- ❖ Mental disturbance.
- ❖ Stress.
- ❖ Mental irritability.
- ❖ Affect hearing ability.

**5. Mention two pollutants which pollute both soil and water.**

- ✓ Waste from factories which has chemicals and metals
  - ✓ Insecticides , pesticides and fertilizers
- Above two pollutants make soil infertile and water not suitable for consumption

**6. How can you reduce pollution caused by smoke in your neighborhood?**

- Use smokeless Chulha
- Use Bio gas
- Use of Solar cooker
- Factories should have chimney filter.
- Use unleaded petrol and CNG
- Planting trees.

**7. Why should we not defecate, urinate and spit on soil?**

Defecate, urinate and spit on soil

