

# Chapter Environment and Sustainable Development – Class 11 Economics

## 1. What is meant by environment?

**Answer:** The environment refers to the surrounding conditions and factors, both natural and man-made, that affect the existence and development of living organisms. It includes air, water, land, resources, and all living organisms, and it plays a crucial role in sustaining life.

## 2. What happens when the rate of resource extraction exceeds that of their regeneration?

**Answer:** When the rate of resource extraction exceeds their regeneration, it leads to depletion of natural resources. This creates imbalances in ecosystems, reduces biodiversity, and can result in environmental degradation such as soil erosion, deforestation, loss of habitats, and climate change. Over-extraction of resources also reduces the ability of ecosystems to regenerate and sustain life.

## 3. Classify the following into renewable and non-renewable resources:

- (i) **Trees** – Renewable
- (ii) **Fish** – Renewable
- (iii) **Petroleum** – Non-renewable
- (iv) **Coal** – Non-renewable
- (v) **Iron-ore** – Non-renewable
- (vi) **Water** – Renewable (if managed sustainably)

## 4. Two major environmental issues facing the world today are \_\_\_\_\_ and \_\_\_\_\_.

**Answer:** Two major environmental issues facing the world today are **climate change** and **loss of biodiversity**.

## 5. How do the following factors contribute to the environmental crisis in India? What problem do they pose for the government?

**(i) Rising population:** The rising population puts immense pressure on natural resources, leading to over-exploitation of land, water, and forests. It causes overcrowding, deforestation, and waste generation, worsening environmental degradation. For the government, managing resources, ensuring food and water security, and providing basic services to a growing population becomes a major challenge.

**(ii) Air pollution:** Air pollution, mainly from industrial emissions, vehicle exhaust, and agricultural burning, contributes to smog, respiratory diseases, and climate change. It degrades air quality and harms human health. The government faces the challenge of enforcing regulations to control emissions and promoting cleaner technologies.

**(iii) Water contamination:** Water contamination, due to industrial discharge, sewage, and pesticide runoff, affects drinking water quality and ecosystems. This creates health hazards and disrupts agricultural productivity. The government needs to improve water management, treatment infrastructure, and public awareness about water conservation.

**(iv) Affluent consumption standards:** Affluent consumption leads to increased demand for resources, resulting in unsustainable patterns of production and waste generation. This adds pressure on the environment, contributing to pollution and resource depletion. The government needs to promote sustainable consumption and encourage eco-friendly lifestyles.

**(v) Illiteracy:** Illiteracy often results in a lack of awareness about environmental issues and sustainable practices. This leads to overexploitation of resources and poor waste management. The government needs to invest in environmental education and awareness programs to promote responsible behavior.

**(vi) Industrialisation:** Industrialisation leads to the release of pollutants into air, water, and soil, and increases the demand for raw materials. It contributes significantly to environmental degradation. The government must regulate industrial growth and promote cleaner technologies to minimize environmental impact.

**(vii) Urbanisation:** Urbanisation results in deforestation, loss of agricultural land, and increased pollution. It also strains infrastructure and resource management systems. The government needs to plan cities sustainably, ensuring efficient waste management, green spaces, and water conservation.

**(viii) Reduction of forest coverage:** Deforestation leads to soil erosion, loss of biodiversity, and disruption of the carbon cycle. It contributes to global warming. The government must take action to conserve forests and implement afforestation programs.

**(ix) Poaching:** Poaching threatens wildlife populations, especially endangered species, and disrupts ecosystems. The government needs to enforce strict wildlife protection laws and promote awareness about the importance of biodiversity conservation.

**(x) Global warming:** Global warming, caused by the emission of greenhouse gases, leads to climate change, rising sea levels, and extreme weather conditions. It affects agriculture, health, and infrastructure. The government must adopt policies to mitigate climate change and promote renewable energy.

## 6. What are the functions of the environment?

**Answer:** The environment performs the following functions:

- **Supply of Resources:** Provides natural resources like water, air, minerals, and soil for human survival and development.
- **Assimilation of Wastes:** Absorbs waste products from human activities and helps in their decomposition or recycling.

- **Sustenance of Life:** Supports the existence of life by providing genetic and biodiversity for ecological balance.
- **Aesthetic Services:** Enhances the quality of life by offering beauty in natural landscapes, promoting mental well-being, and contributing to cultural and recreational values.

## 7. Identify six factors contributing to land degradation in India.

**Answer:** Six factors contributing to land degradation in India include:

1. **Deforestation:** The clearing of forests for agriculture and urbanization leads to soil erosion and loss of biodiversity.
2. **Overgrazing:** Excessive grazing by livestock leads to soil compaction, loss of vegetation, and desertification.
3. **Waterlogging:** Excessive irrigation leads to water accumulation in the soil, harming plant growth and soil structure.
4. **Salinization:** The accumulation of salts in the soil due to improper irrigation practices reduces soil fertility.
5. **Mining Activities:** Mining operations lead to the removal of topsoil and cause soil erosion, loss of fertility, and water contamination.
6. **Urbanization:** Rapid urbanization leads to the conversion of agricultural land into non-productive land, contributing to land degradation.

These answers should help you in understanding the key concepts related to the environment and sustainable development in India!