



Question 8. Explain how the opportunity costs of negative environmental impact are high.

Answer. Opportunity cost is the cost of alternative opportunity given up. The country has to pay huge amount for damages done to human health. The health cost due to degraded environmental quality have resulted in diseases like asthma, cholera, etc. Huge expenditure is incurred in treating the diseases.

Question 9. Outline the steps involved in attaining sustainable development in India.

Answer. Steps and Strategies to Achieve Sustainable Development in India:

1. Use of Non-Conventional Sources of Energy
2. LPG, Gobar Gas in Rural Areas
3. CNG in Urban Areas
4. Wind Power
5. Solar Power through Photovoltaic Cells
6. Mini-Hydel Plants
7. Traditional Knowledge and Practices
8. Biocomposting
9. Biopest Control.

Question 10. India has abundant natural resources—substantiate the statement.

Answer. India has rich quality of natural resources in plenty. It is clear from the following points:

1. India has rich quality of soil, hundreds of rivers and tributaries, lush green forests, abundant mineral deposits under the land surface, vast stretch of the Indian Ocean, mountain ranges, etc.
2. The black soil of the Deccan Plateau is particularly suitable for cultivation of cotton. It has led to concentration of textile industries in this region.
3. The Indo-Gangetic plains — spread from the Arabian Sea to the Bay of Bengal — are one of the most fertile, intensively cultivated and densely populated regions in the world.
4. India's forests provide green cover for a majority of its population and natural cover for its wildlife.
5. Large deposits of iron-ore, coal and natural gas are found in the country. India alone accounts for nearly 20 per cent of the world's total iron-ore reserves.
6. Bauxite, copper, chromate, diamonds, gold, lead, lignite, manganese, zinc, uranium, etc. are also available in different parts of the country.

Question 11. Is environmental crisis a recent phenomenon? If so, why?

Answer. Yes, because India is suffering from population explosion. .

1. India has approximately 20 per cent of livestock population on a mere 2.5 per cent of the world's geographical area. The high density of population and livestock and the competing uses of land for forestry, agriculture, pastures, human

settlements and industries exert an enormous pressure on the country's finite land resources.

2. The per capita forestland in the country is only 0.08 hectare. There is an excess felling of about 15 million cubic metre forests over the permissible limit. Indiscriminate felling of trees has led to destruction of forest cover.

Question 12. Give two instances of:

- (a) Overuse of environmental resources
- (b) Misuse of environmental resources.

Answer.

1. There is massive overuse and misuse of environmental resources. Examples of overuse of environmental resources are deforestation and land degradation.
2. Example of misuse of environmental resources are ozone depletion and global warming.

Question 13. (a) State any four pressing environmental concerns of India.

(b) Correction for environmental damages involves opportunity costs — explain.

Answer. (a) Pressing environmental concerns of India:

1. Global Warming. Global warming is a gradual increase in the average temperature of the earth's lower atmosphere as a result of the increase in greenhouse gases due to industrialisation in recent times.
2. Ozone Depletion. The depletion of ozone layer has been caused by high levels of chlorine and bromine compounds in the stratosphere. It causes skin cancer, and lowers the production of aquatic organisms.
3. Environmental Crisis. The rising population of the developing countries and the affluent •, consumption and production standards of the developed world have put a great stress on the environment in terms of its functions of supplying resources and assimilating waste.
4. Massive Overuse and Misuse of Environmental Resources. There is massive overuse and misuse of environmental resources which results in deforestation, land degradation, ozone depletion and global warming. .

(b) The correction of environmental damages involve huge opportunity cost. It is the cost of alternative opportunity given up. The country has to pay huge amount for damages done to human health. The helath cost due to degraded environmental quality have resulted in diseases like asthma, cholera, etc. Huge expenditure is incurred on treating the diseases.

Question 14. Explain the supply-demand reversal of environmental resources.

Answer. Supply Demand Reversal of Environmental Resources: -

The demand for resources for both production and consumption has gone beyond the rate of regeneration of the resources increasing the pressure on the absorptive capacity of the environment. This reversal of the supply-demand relationship with demand for resources exceeding the supply has led to degeneration of the environment.

Question 15. Account for the current environmental crisis.

Answer.

1. Land Degradation
2. Biodiversity Loss
3. Air Pollution
4. Management of Fresh Water and Solid Waste.

Question 16. (a) Highlight any two serious adverse environmental consequences of development in India.

(b) India's environmental problems pose a dichotomy — they are poverty induced and, at the same time, due to affluence in living standards—is this true?

Answer. (a)

1. Biodiversity Loss

(i) India has approximately 20 per cent of livestock population on a mere 2.5 per cent of the world's geographical area. The high density of population and livestock and the competing uses of land for forestry, agriculture, pastures, human settlements and industries exert an enormous pressure on the country's finite land resources.

(ii) The per capita forestland in the country is only 0.08 hectare. There is an excess felling of about 15 million cubic metre forests over the permissible limit. Indiscriminate felling of trees has led to destruction of forest cover.

2. Air Pollution

(i) In India, air pollution is widespread in urban areas where vehicles are the major contributors. Vehicular emissions are of particular concern since these are ground level sources and, thus, have the maximum impact on the general population. The number of motor vehicles has increased from about 3 lakh in 1951 to 67 crores in 2003.

(ii) India is one of the ten most industrialised nations of the world. It has led to unplanned urbanisation, pollution and the risk of accidents.

(b) Dichotomy of the Threat to India's Environment

The developmental activities in India have resulted in pressure on its finite natural resources, besides creating impacts on human health and well-being. The threat to India's environment poses a dichotomy—threat of poverty-induced environmental degradation and, at the same time, threat of pollution from affluence and a rapidly growing industrial sector. Air pollution, water contamination, soil erosion, deforestation and wildlife extinction are some of the most pressing environmental concerns of India.

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