

NCERT MOST IMPORTANT QUESTIONS CLASS – 11

Economics CHAPTER – 9 Environment and Sustainable Development

Q1. What do you mean by global warming?

Ans: The gradual rise in the earth's temperature caused by high quantities of carbon dioxide and other chemicals emitted in the atmosphere is known as global warming. It is an increase in global average temperature that is thought to be produced by the greenhouse effect.

The natural greenhouse effect keeps the Earth's temperature stable, allowing humans and many other lifeforms to exist. However, human activities have considerably increased the greenhouse effect since the Industrial Revolution, causing the Earth's average temperature to rise by nearly 1°C. This is causing global warming. However there are various natural and man-made reasons behind the cause of global warming, such as deforestation, industrialisation, forest fires, increasing population, chlorofluorocarbons, etc.

Q2. Write some lines on ozone depletion.

Ans: Depletion of the ozone layer is simply the wearing down (decrease) of the amount of ozone in the stratosphere. Unlike pollution, which has many different types and causes, Ozone depletion can be traced back to a single main human activity.

Chlorofluorocarbons (CFCs) are used to make insulating foams, soaps, solvents and cooling products like air conditioners, refrigerators, and take-out containers. When CFCs reach the stratosphere, depletion begins. The sun's ultraviolet light degrades these CFCs. Chlorine atoms are released as a result of the breaking up event.

When chlorine atoms react with Ozone, a chemical cycle begins that destroys the beneficial ozone in that area. More than 100,000 ozone molecules can be broken apart by a single chlorine atom. The amount of UVB (Type-B ultra violet) that reaches the Earth's surface increases as the ozone layer depletes.

UVB induces non-melanoma skin cancer and plays a significant influence in the development of malignant melanoma, according to laboratory and epidemiological research.

Q3. What is Chipko Movement? How has India benefited from it?

Ans: The Chipko movement was a nonviolent movement that started in 1973 with the purpose of conservation and protection of trees. However, it is mainly remembered for the mass mobilisation of women for the cause of forest preservation, which also resulted in a shift in attitudes and opinions about women's status in the society. Hence, In Uttar Pradesh's Chamoli district (now Uttarakhand), an uprising against tree felling and the preservation of ecological balance began in 1973 .

The name 'chipko' originated from the phrase 'embrace,' since the locals clasped and encircled the trees to keep them from being chopped.

Also the first Chipko andolan was founded in the 18th century by Rajasthan's Bishnoi people. Sunderlal Bahuguna, a well-known environmentalist, founded it. Bahuguna is also credited with coining the Chipko proverb "ecology is perpetual economy."

In 1980, one of the Chipko movement's key achievements was a 15-year moratorium on tree cutting in Uttar Pradesh's forests. The restriction was later extended to Himachal Pradesh, Karnataka, Rajasthan, Bihar, the Western Ghats, and the Vindhyas. All of this was done on the orders of the Indian Prime Minister, following widespread demonstrations by activists across the country.

Q4. What is a pollution control board?

Ans: The Water (Prevention and Control of Pollution) Act of 1974 established the Central Pollution Control Board (CPCB). It was also given powers and functions under the Air (Prevention and Control of Pollution) Act of 1981.

Its functions include:

- Promoting the purity of streams and wells in various parts of the states through water pollution prevention, control, and abatement.
- They must monitor the improvement of air quality and work to avoid, control, or reduce air pollution in the country.
- They are expected to coordinate the work of the State Pollution Control Boards and handle disputes among them,
- To establish, alter, or repeal the requirements for stream or well in conjunction with the state governments concerned,
- To establish criteria for the quality of air.
- They coordinate the actions of the State Pollution Control Boards by providing technical help and guidance.

As a technical wing of the MoEF (Ministry of Environment, Forest and Climate Change), it is the country's highest organization in the subject of pollution control. Meteorological data such as wind speed and direction, relative humidity (RH), and temperature were also monitored in conjunction with air quality. This information about ITO's air quality is updated once a week.

The CPCB, in partnership with the relevant SPCBs/PCCs, built a statewide network of water quality monitoring stations, with 1019 stations operating in 27 states and 6 union territories. The inland water quality monitoring network is organized into three levels:

- Global Environment Monitoring System (GEMS),
- Monitoring of Indian National Aquatic Resources System (MINARS), and
- Yamuna Action Plan (YAP).

Q5. Define Biocomposting.

Ans: Bio-composting is a method of waste disposal in which organic waste decomposes organically in an oxygen-rich environment. Although all waste eventually decomposes, only certain waste materials are biodegradable and should be placed in compost bins.

Compostable food waste includes banana peels, coffee grinds, and eggshells. Yard trash, such as grass clippings and leaves, can be added to compost bins in addition to food waste. As materials decompose, these items will aid in decomposition, and lessen odor.

Perennial weeds, or plants that return year after year, should not be composted since they will regrow and spread. Composting these products helps to limit the amount of waste that is transferred to landfills and mass-burn incinerators.

Composting not only reduces trash, but it also produces a valuable product. Instead of utilizing artificial fertilizers, the final compost, humus, is nutrient-rich and may be used to improve weak soils and nourish gardens. Compost also improves soil retention power, which can boost growing conditions.

Q6. What is air pollution? Write some measures to control it.

Or

India has an increasing rate of air pollution. What shall be done to check the same?

Ans: Air pollution is the polluting of natural air by the presence of various pollutants such as toxic gases and chemicals. This form of contamination can be created by burning materials, gases emitted by cars, or hazardous fumes emitted as a byproduct of industry.

According to experts, one of the most serious side effects of air pollution is global warming. Because of the high degree of industrialization, air pollution is a major concern throughout the world, particularly in large cities. The release of such air pollutants in high quantities, such as smog, particles, solid materials, and so on, is settling over the city, generating air pollution and posing health risks to the population. People generate a lot of unclean garbage on a daily basis, especially in big cities, which pollutes the entire atmospheric air to a large extent.

The following are some methods for reducing air pollution:

- Industrial estates should be located away from residential areas.
- Poisonous gases should be removed by running the vapors through a water tower scrubber or spray collector.
- Attempts should be undertaken to produce pollution-free automotive fuels, such as alcohol, hydrogen, and battery power. Automobiles should have exhaust emission controls.
- Growing plants that can metabolize nitrogen oxides and other gaseous pollutants, such as Vitis, Pimis, Juniperus, Quercus, Pyrus, Robinia pseudoacacia, Viburnum, Crataegus, Ribes, and Rhamnus.
- Priority afforestation of the mining area.
- Research and development of non-combustible energy sources, such as nuclear power, geothermal power, solar power, tidal power, wind power, and so on.
- In nations such as India, traditional fuel sources such as wood, coal, and so on should be reconsidered in favor of newly developed smoke-free furnaces. Filtering, settling, dissolving, absorption, and other methods of mitigating air pollution are examples.
- Low-cost gadgets should be developed for these strategies.
- Burning of leaves, plastic, trash etc, and burning of crackers should be avoided as much as possible.
- Practicing recycling and reuse.

Q7. State some major environmental issues which the world is facing today?

Or

What are the biggest challenges the world is facing today in terms of the environment?

Ans: Our surroundings are continuously changing, and there is no doubt about that. However, as our environment evolves, so does our need to become more aware of the issues that surround it.

With a tremendous flood of natural disasters, warming and cooling phases, various forms of weather patterns, and much more, people must be aware of the environmental difficulties that our world is experiencing. Increasing food, water, energy, and infrastructural needs are pushing nature to its breaking point. And the effects of climate change can be seen everywhere we look.

The following are today's most serious environmental issues:

- **Pollution:** Pollution of the air, water, and soil takes millions of years to recover from. The most significant pollutants are those emitted by industry and motor vehicles. While oil spills, acid rain, and urban runoff create water pollution, different gases and pollutants generated by industry and factories, as well as the combustion of fossil fuels, cause air pollution.

- **Global Warming:** Climate change, such as global warming, is caused by human activities such as greenhouse gas emissions. Global warming causes rising ocean and earth surface temperatures, resulting in the melting of polar ice caps, rising sea levels, and unusual precipitation patterns such as flash floods, heavy snow, and deserts.
- **Overpopulation:** The planet's population has reached unsustainable levels due to a lack of resources such as water, fuel, and food. Population growth in less developed and emerging countries is putting a burden on already scarce resources.
- **Urban Sprawl:** The term "urban sprawl" refers to population migration from densely populated urban areas to low-density rural areas, resulting in the city invading more and more rural land. Land degradation, increased traffic, environmental challenges, and health concerns all come from urban sprawl.
- **Public Health Concerns:** The existing environmental challenges endanger both human and animal health. Dirty water is the world's greatest health danger, threatening both quality of life and public health. Toxins, pollutants, and disease-carrying organisms are carried by run-off into rivers.
- **Genetic Engineering:** Genetic engineering refers to the use of biotechnology to modify food genetically. Food genetic manipulation causes an increase in poisons and diseases because genes from an allergic plant can transfer to the target plant. Because an altered gene may be hazardous to wildlife, genetically modified crops can cause major environmental problems.

The desire for change in our daily lives and our government's movements is growing. Although it is true that we cannot physically stop the weakening of our ozone layer. There are still a plethora of things we can do to make a dent in what we already know. We can contribute to a more ecologically conscious and compassionate community by raising awareness about these concerns in our local community and within our families.

Q8. Write a short note on sustainable development.

Or

How can nations today achieve sustainable development?

Ans: Sustainable development is a method for people to utilise resources without running out of them. The Brundtland Commission described it as development with sustainability that "meets the requirements of the present without jeopardizing future generations' ability to satisfy their own needs."

It is the idea of needs and the restrictions placed by technology and society on the ability of the environment to meet current and future requirements. Thus, the notion of sustainable development provides a framework for the integration of environmental policies and development plans with global, national, regional, and local ramifications.

Natural systems that support life on Earth should not be jeopardized by development. As a result, the concept of sustainable development leads to new resource consumption techniques, which are as follows:

- Excessive resource use must be conserved or reduced.
- Material recycling and reuse.
- Increasing the use of renewable resources such as solar energy over nonrenewable resources such as oil and coal.

(Image will be uploaded soon)

Sustainable development also entails addressing the basic requirements of all impoverished individuals on the planet and providing opportunity for all to realize their dreams for a better life. Otherwise, the globe would always be prone to ecological and other crises since poverty and unfairness are endemic.

Individual ownership and governmental domains are not respected in ecological interactions. For example, the irrigation procedures, herbicides, and fertilizers employed on a farm have an impact on the productivity of neighboring farms, particularly small farms. Today's progress must not jeopardize the development and environmental demands of future generations.

To achieve sustainable development and meet the needs of the majority of people, poverty must be eradicated and inequities in living standards must be reduced all over the world. To protect the environment, nations must take preventative measures. When there are significant or irreversible environmental threats, scientific uncertainty should not be put to you in order to postpone cost-effective steps to prevent environmental damage or depletion.

Environmental challenges are best addressed with the involvement of all concerned persons. Nations must make environmental information publicly available in order to facilitate and encourage public knowledge and engagement.

Today, all aspects of sustainability are at stake, including physical, economic, and social sustainability. Integration of many realms of knowledge such as disciplines, sectors, and institutions shows to be a necessary task in order to get sustainable results and well-supported development processes.

Q9. India has plenty of natural resources. How much do you agree with this statement?

Or

Comment on India's natural resource availability. How much is India lucky?

Ans: Yes, I agree with this assertion. Natural resources are broadly defined as all of the things provided by nature on, above, and beneath the earth's surface. Land, water, forests, fisheries and animals, mineral ores, and energy sources such as coal, petroleum, gas, and uranium are all examples of natural resources.

India in terms of natural resources:

- 1. Land Resources:** India has over 10% of the world's agricultural land. Despite being only the seventh largest country, India boasts the world's most alluvial plains, the world's largest deltas, and the world's largest area of agricultural land by a wide margin.
- 2. Forest Resources:** India has a considerably smaller per capita forest (0.5 hectares) than the rest of the globe (1.9 hectares). According to the National Policy on Woods (1988), forests should encompass one-third (33%) of the country's land area in order to maintain ecological equilibrium.
- 3. Mineral Resources:** Massive quantities of iron ore and a booming economy. India was a forerunner in the use of iron and several smelting technologies. It created the Crucible steel and Wootz steel, which became quite popular around the world. Iron and steel strength produced both formidable weapons and huge implements that aided the establishment of several empires in India.
- 4. Textile production leadership:** Since the Indus Valley Civilization 5000 years ago, India has possessed vast supplies of cotton and has been a pioneer in textile manufacture. India was the world's greatest textile industry by the 18th century. This is one of the primary factors that drew Europeans in. Later, the English took control, automated, and ushered in the industrial revolution.
- 5. The availability of a large workforce:** India has always had a vast workforce. This was beneficial to anyone establishing a large army or an army of employees. Europeans employed Indian labor to fight their battles and to develop their other colonies.
- 6. Extensive shoreline:** India's long coastline in the center was unrivaled by other civilizations, allowing India to connect to innovations coming from both the east and the west. It was via trade that they were able to export their beliefs and rituals to the rest of the world.
- 7. Water Resources:** Rainwater, seawater, ground and surface water are the primary sources of water. Water quality standards must be enforced in order to specify the acceptability of water for drinking, agriculture, industry, public health, and environmental safety.