

# 6

## Environment and Natural Resources

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In the world politics, environment and natural resources related issues are gaining importance. From the 1960's onwards, there is rise of environmental movements among the different parts of the world. Issues such as global warming and climate change are discussed and debated as a global concern. Conservation of natural resources is emphasised as these resources are depleting at a faster rate. Natural and environmental resources generally describe all the elements available in nature. These can be

- Physical such as soil, water, forests, fisheries and animals, minerals (e.g. copper, bauxite, etc).
- Gases (e.g. helium, hydrogen, oxygen, etc).
- Abstract such as solar energy, wind energy, landscape, air, water and so forth.

### Environmental Problems

- Environmental problems are mainly related to the impacts of human activities on environmental resources. These generally take the form of pollution, depletion or degradation of water, air and soil.

- At the global level, awareness about the environmental degradation and its consequences on economic growth arose as a political issue from 1960's onwards.
- International agencies like United Nations Environment Programme (UNEP) held international conferences and began holding international conferences and promoting detailed studies to get a more coordinated and effective response to environmental problems. Since then, Environment has emerged as an important issue of global politics.

### Environmental Concerns in Global Politics

Some of the environmental concerns at the global level are as follows

- Cultivable land is scarcely expanding around the world, while a large amount of existing agricultural land is losing fertility. Fisheries have been overharvested and grasslands have been overgrazed. Water bodies have been depleted and polluted to such an extent that food production has

drinking water and 2.4 billion do not have access to sanitation, resulting in the deaths of over three million children per year.

- Natural forests are being cut down and people are being displaced. Natural forests contribute to stabilise the climate, moderate water supplies and house the bulk of the planet's species on land. The deterioration of habitat in areas which are rich in species is contributing to the loss of biodiversity.
- The ozone hole (a gradual decrease in the total amount of ozone in the Earth's stratosphere) poses a serious threat to ecosystems and human health.
- Coastal pollution is also on the rise around the world. Although the open sea is relatively clean due to land-based activities coastal waterways are becoming increasingly polluted. If left unchecked, intensive human settlement of coastal zones around the world would worsen the quality of the marine environment.

## Protection of Global Commons

The resources which are not owned by anyone but rather shared by a community are known as commons, for example a common room, a community centre, a park, or a river. In the same way in the world, there are some areas which are located outside the sovereign jurisdiction of any one state and hence require common governance by the international community. This is known as **res communis humanitatis** or **global commons**. They include earth's atmosphere, Antarctica, the ocean floor and outer space.

Cooperation among the global commons is not easy. A number of agreements have been signed such as the Antarctic treaty 1959, the Montreal protocol 1987, the Antarctic environment protocol 1991. All the ecological issues face major problems of achieving consensus on common environmental agendas on the basis of vague scientific evidence and time frames. In that sense the discovery of the ozone hole over the Antarctic in the mid-1980s revealed the opportunity as well as dangers inherent in tackling global environmental problems.

Thus, the history of outer space as a global common shows that the management of these areas is thoroughly influenced by North-South inequalities. The crucial issue here with earth's atmosphere and ocean floor is technology and industrial development.

## Common but Differentiated Responsibilities

There is a difference of opinion between the North and the South over the issue of environmental conservation. The

They want everyone to be equally responsible for ecological conservation. Whereas, the South or developing countries feel that much of the ecological degradation in the world is the product of industrial development undertaken by developed countries. They, therefore believe that a more responsibility of ecological conservation should be taken by the North itself.

Moreover, they believe that since developing countries are still under the process of industrialisation and they must be subjected to same restrictions, which apply to the developed countries. Thus, In the **Rio summit, 1992**, it was accepted that special needs of the developing countries must be taken into account in the development and interpretation of rules of international environmental law and is called the principle of 'common but differentiated responsibilities.'

As per the Rio declaration, states must cooperate on a global scale to conserve, protect and restore the health and integrity of the Earth's ecosystem. According to different contributions of global environmental degradation, states share a common responsibility but with different approach. Like the developed countries fulfill their responsibility with respect to sustainable development due to the societal pressures on the global environment as well as the technological and financial resources commanded by them.

The 1992 United Nations Framework Convention on Climate Change (UNFCCC) also provides that the parties should act on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.

The participants at the convention agreed that most of the current global emissions of greenhouse effect had historically originated in the developed countries and that per capita emissions in developing countries was comparatively low. India, China and several other developing states were thus exempted from the requirements of Kyoto Protocol.

The **Kyoto Protocol** is an international agreement which has set targets for industrialised states to cut their greenhouse gas emissions. Certain gases like Carbon dioxide, Methane, Hydro-fluoro carbons etc. are considered at least partly responsible for global temperature which may have catastrophic consequences for life on Earth. The protocol was agreed to in 1997 in Kyoto in Japan, based on principles set out in UNFCCC.

## Common Property Resources

Common property refers to common property for the group. It generally means that the group members have both the rights and duties related to the nature, levels of use and the maintenance of a given resource. Many number of factors are responsible for change in size, quality and availability to the poor of the common property. Some of the factors are

## India's Stand on Environmental Issues

India has signed and ratified Kyoto Protocol, 1997 in August 2002. Developing countries like India and China were exempted from the requirements of the Kyoto Protocol because their contribution to the greenhouse gases during industrialisation was not significant. However, the critics of the Kyoto Protocol point out that both India and China, along with other developing countries, will be among the leading contributors to greenhouse gas emissions.

At the G-8 meeting in June 2005, India pointed out that the per capita emission rates of the developing countries are a tiny fraction of those in the developed world. Abiding by the principles of common but differentiated responsibilities, India viewed that major responsibility of curbing emission rests with the developed countries, which have accumulated emissions over a long period.

The Indian Government is already participating in global efforts through a number of programmes like India's **Auto-Fuel Policy** mandates cleaner fuels for vehicles. The Energy Conservation Act, 2011 outlines initiatives to improve energy efficiency. Electricity Act of 2003 encourages the use of renewable energy and so on.

The government is also keen to launch a National Mission on Biodiesel, using about 11 million hectares of land to produce biodiesel by 2011-2012. India ratified the Paris Climate Agreement on 2nd October, 2016 and it has largest renewable energy programmes in the world. In 1997, a review of the implementation of the agreements at the Earth summit in Rio was undertaken by India.

India suggested that the developing countries must get financial resources and clean technologies from the developed countries in order to meet UNFCCC commitments. India also views that SAARC countries should adopt a common position on major global environment issue.

## Environmental Movements

Some of the most significant responses to the challenge of environmental degradation has come from groups of environmentally conscious volunteers working in different parts of the world. These environmental movements are amongst the most vibrant, diverse and powerful social movements across the globe. These movements raise new ideas and long term visions.

## Categories of Environmental Movements

but the majority of them work on a local scale. These environmental movements are among the worlds most active, diversified and influential social movements today. Some environmental movements are categorised below

### Forest Movements

Forest clearing in the Third World countries continues at fast pace, despite three decades of environmental activism. The forest movements of the South like in Mexico, Chile, Brazil, Malaysia, Indonesia, continental Africa and India are faced with enormous pressures. It has been evident that destruction of world's grand forests has increased in the last decade.

### Movements Against Mineral and Mining Industry

Mineral industry is one of the major industries on the planet. A large number of economies of the South are now being re-opened to MNCs through the liberation of the global economy. This industry faces criticism due to its use of chemicals, its pollution of waterways and land, its clearance of native vegetation, etc.

For example, the groups and organisations in Philippines campaigned against the Western Mining Corporation (WMC), an Australian based MNC for the extraction of minerals. Both anti-nuclear sentiments and basic rights of the Australian indigenous peoples were denied by this Corporation.

### Anti-Dam Movements

These movements are pro-river movements for more sustainable and equitable management of river systems and valleys. For example, early 1980's saw the first anti-dam movement in the North; it was the campaign to save the Franklin River and its surrounding forests in Australia. This is an example of wilderness and forest campaign as well as an anti-dam campaign.

There has been a spurt in mega-dam building in the South, from Turkey to Thailand to South Africa, from Indonesia to China. In case of India, **Narmada Bachao Andolan** is one of the best known anti-dam movements based on the notion of non-violence.

### Significance of Environmental Movements

Environmental Movements plays a significant role in the society which is discussed below

- **Creates Awareness** It helps to create awareness among the masses as more people become aware regarding the effects of human activities on the environment.

- **Alternative Form of Energy is Promoted**  
Environmentalists promote the use of alternative forms of energy to solve conflicts between environmental protection and technological developments. It aimed at improving the world's economy while addressing climate change with regards to greenhouse gas emissions.
- **Recycling Campaigns** These movements advocate for re-use and the recycling of non-biodegradable products such as plastics, obsolete electrical equipment and many others.

### Major Environmental Movements in India

**Chipko Movement** The Chipko Movement focused world attention on the environmental problems of the Alaknanda catchment area in the mid-Western Himalayas. The main demand of the people in these protests was that the benefits of the forests, especially the right to fodder, should go to local people.

**Appiko Movement** It is one of the forests based environmental movements of India, often looked at as a continuation of the Chipko Movement. The movement took place in the Uttara Kannada district of Karnataka in the Western Ghats. The movement later focused on the rational use of ecosphere through introducing alternative energy resource to reduce pressure on the forest.

**Silent Valley Movement** In 1973, the then State Government of Kerala decided to build a dam across a gorge in the Kunthipuzha River, which flows through the Silent Valley. The proposed project would generate 200 MW of electricity and form the basis for regional economic development. The central issues of the Silent Valley protests included the protection of the tropical rainforest, maintenance of the ecological balance and an opposition destructive development.

**Tehri Dam Movement** The construction of the Tehri Dam is opposed on the ground of seismic data projecting earthquake disaster and displacement of the people of old Tehri town and the neighbouring villages. The anti-Tehri Dam Movement is spearheaded by Tehri Baandh Virodhi Sangharsh Samiti (Committee for the Struggle Against the Tehri Dam) founded by the prominent leaders like VD Saklani, Sunderlal Bahuguna and other leaders active in the movement. The movement continued from 1980s to 2004.

**Chilka Bachao Movement** The movement began as a grassroots movement and in the subsequent years it evolved in to an organised mass movement. The movement attracted international attention due to several issues such as environmental degradation through intensive prawn aquaculture, deprivation of the main support base for the livelihood of the poor fishing communities, pollution of the lake environment, etc.

**Check Point**  
**01**

1. Which form of energy is solar energy?
2. Agenda 21 is a global action plan to promote .....
3. How many countries attended Rio Summit of 1992?

## Global Warming and Climate Change

'Climate change' and 'global warming' are often used interchangeably but have distinct meanings. Global warming is the long-term heating of Earth's climate system observed since the pre-industrial period due to human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth's atmosphere.

On the other hand, climate change refers to a long-term change in the average weather patterns that have come to define Earth's local, regional and global climates.

### Causes of Global Warming and Climate Change

One of the major causes of global warming is directly attributable to human activity—specifically to our burning of fossil fuels such as coal, oil, gasoline and natural gas, which results in the greenhouse effect.

Whereas the main causes of Climate change are

- Increased use of fossil fuels such as coal, oil and gas to generate electricity, run cars and other forms of transport and power manufacturing and industry.
- Deforestation because living trees absorb and store carbon dioxide.
- Increasingly intensive agriculture which emits greenhouse gases like methane and nitrous oxide.

### Global Initiatives on Climate Change

As climate change is one of the most critical global challenge. This issue is of immense importance for every global citizen. Some of global initiative to prevent climate change are given below

#### Montreal Protocol, 1987

It was a historical environmental accord that became a model for future diplomacy on the climate issue. Every country in the world eventually ratified the treaty, which required them to stop producing substances that damage the ozone layer, such as chlorofluorocarbons (CFCs). The protocol has succeeded in eliminating nearly 99 per cent of these ozone-depleting substances.

#### UN Framework Convention on Climate Change (UNFCCC), 1992

It was ratified by 197 countries including the United States. It is also considered a landmark accord or a first global treaty to explicitly address climate change. It established an annual forum, known as the Conference of the Parties or COP for

## Kyoto Protocol, 2005

It was adopted in 1997 and came into force in 2005, which is the first legally binding climate treaty. It is an international agreement setting targets for industrialised countries to cut down their greenhouse gas emissions. China, India and other developing countries were exempted from the requirements of Kyoto Protocol.

## Paris Agreement, 2015

The Paris Agreement requires all countries to set emissions-reduction pledges. Governments set targets, known as nationally determined contributions, with the goals of preventing the global average temperature from rising 2°C (3.6°F) above pre-industrial levels and pursuing efforts to keep it below 1.5°C (2.7°F). It also aims to reach global net-zero emissions, where the amount of greenhouse gases emitted equals the amount removed from the atmosphere, in the second half of the century.

Every five years, countries are supposed to assess their progress toward implementing the agreement through a process known as the global stocktake; the first is planned for 2023. Countries set their own targets and there are no enforcement mechanisms to ensure they meet them.

A few countries have not formally approved the agreement: Eritrea, Iran, Iraq, Libya, South Sudan, Turkey and Yemen. The United States, the world's second-largest emitter, was the only country to withdraw from the accord, a move by former President Donald Trump that took effect in November 2020. However, President Joe Biden re-entered the United States into the agreement during his first months in office.

## Conservation of Natural Resources

The sustainable management of the environment and natural resources is vital for political and economic growth as well as for the human well-being. When managed well, renewable natural resources, watersheds, productive landscapes and seascapes can provide the foundation for sustained inclusive growth, food security and poverty reduction.

Hence, conservation of resources means the judicious and planned use as well as reuse of natural resources by avoiding their wastage, misuse and over use.

## Methods of Conservation

- It is necessary to create awareness about the preservation and conservation of resources among people. They should be made aware of the harmful result of large scale destruction of natural resources.

people about planting and nurturing trees may help in conserving forests.

- Terrace farming in hilly regions, contour ploughing, controlling the shifting cultivation, overgrazing and plugging the gullies. Some of are the import methods of soil conservation.
- Construction of dams to impound rain water, use of sprinklers, drip or trickle irrigation technique, recycling of water for industrial and domestic purposes will help in conservation of the invaluable water resource.
- Minerals are non-renewable resources so they need to be conserved through efficient utilisation, development of better technology of extraction and purification, recycling of minerals and use of substitutes.
- Non-conventional sources of energy example solar, wind or water will have to be developed in order to save conventional sources of energy.

## Important UN Conferences/Summits

**United Nations Conference on Environment and Development (1992)** It was held in Rio de Janeiro, Brazil, in June 1992. This was also known as Earth Summit. The Summit was attended by 170 states and led to the establishment of the Commission on Sustainable Development.

Three major agreements were adopted

- **Rio Declaration on Environment and Development**, a series of principles defining the rights and responsibilities of states.
  - **Agenda 21**, a global plan of action to promote sustainable development.
  - **Statement of Forest Principles**, a set of principles to underpin the sustainable management of forests worldwide.
- The rich and the poor nations adopted different perspectives to protect the Earth at Rio Summit for instance
- The rich countries were called as Global North, whereas, the poor countries were called Global South.
  - Northern states showed concern with ozone depletion and global warming whereas Southern states showed concern for economic development and environmental management.

**General Assembly Special Session on the Environment (1997)** It is also known as Earth Summit +5. It was held on 23rd-27th June, 1997 to review the implementation of Agenda 21.

**World Summit on Sustainable Development (2002)** It is also known as Earth Summit +10. It was held Johannesburg from 26th August, - 4th September, 2002. It reviewed progress in the implementation of Agenda 21 since its adoption in 1992.

**UN Conference on Sustainable Development (2012)** It is also known as Rio+20. It was held in Rio de Janeiro from 20th-22nd June, 2012. In its outcome document it implied on 'The future we want' which includes strengthening the dimensions, inter-governmental arrangements for Sustainable Development.

**UN Sustainable Development Summit (2015)** It is convened as a high-level plenary meeting of the General Assembly. It was held in

**Check  
Point  
02**

1. When was the first Anti-dam Movement in the North started?
  2. Silent Valley Movement was evident in the state of .....
  3. Which countries were exempted from Kyoto Protocol?
  4. Name the world's second -largest emitter.
  5. Name two important import methods of soil conservation.
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**TERMS TO KNOW**

- **Earth Summit** A conference held in Rio de Janeiro (Brazil) in June, 1992 to deal with various environmental problems.
- **Agenda 21** The Earth Summit recommended a list of practices in reference of development to attain sustainability which is called Agenda 21.
- **UNFCCC** The 1992 United Nations Framework Convention on Climate Change provided that parties should act to protect the climate system with common but differentiated responsibilities.
- **Kyoto Protocol** An international agreement sets targets for industrialised countries to cut their greenhouse gas emissions.
- **Common Property Resource** It means that resources are owned commonly as a group and each member of the group has his share of rights and duties.
- **Resource Geopolitics** It means who gets what, when, where and how much of the resources.

## NCERT FOLDER

1. Which among the following best explains the reason for growing concerns about the environment?

- The developed countries are concerned about protecting nature.
- Protection of the environment is vital for indigenous peoples and natural habitats.
- The environmental degradation caused by human activities has become pervasive and has reached a dangerous level.
- None of the above

**Ans.** (iii) The environmental degradation caused by human activities has become pervasive and has reached a dangerous level.

2. Mark correct or wrong against each of the following statements below that describe the Earth Summit.

- It was attended by 170 countries, thousands of NGOs and many MNCs.
- The summit was held under the aegis of the UN.
- For the first time, global environmental issues were firmly consolidated at the political level.
- It was a summit meeting.

**Ans.** (i) Correct (ii) Incorrect (iii) Correct (iv) Correct

3. Which among the following are true about the global commons?

- The Earth's atmosphere, Antarctica, Ocean floor and outer space are considered as part of the global commons.
- The global commons are outside sovereign jurisdiction.
- The question of managing the global commons has reflected the North-South divide.
- The countries of the North are more concerned about protection of the global commons than the countries of the South.

**Ans.** (a) True, (b) True, (c) True, (d) False

4. What were the outcomes of the Rio Summit?

**Ans.** The outcomes of the Rio Summit are as follows

- The Rio Summit produced conventions dealing with climate change, bio-diversity, forestry and recommended a list of development practices called Agenda 21.
- It gave the concept of sustainable development to be combined with economic growth and ecological

**Ans.** The areas or regions of the world which are located outside the sovereign jurisdiction of any one state and require common governance by the International community are known as global commons. They include the Earth's atmosphere, Antarctica, the ocean floor and outer space.

These areas are exploited and polluted due to

- Vague scientific evidences, their lack of consensus on common environmental issues.
- The inequalities between North-South and their exploitative activities and competition lack proper management area out space.
- The Earth's atmosphere and ocean floor have also been affected by technological and industrial development.

6. What is meant by 'Common but differentiated responsibilities'? How could we implement the idea?

**Ans.** By Common but differentiated responsibilities we mean that the state shall cooperate in the spirit of global partnership to conserve, protect and restore the health and integrity of the earth's ecosystem. Over various contributions of global environmental degradation the states have common but differentiated responsibilities. The developed countries acknowledge that the responsibility they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technological and financial resources they command. We could implement the idea with the help of conventions and declarations

- The Rio-Summit held in June 1992 produced conventions dealing with climate change, biodiversity, forestry and recommended a list of developed practices called Agenda 21.
- The 1992 United Nations Framework Convention on Climatic Change (UNFCCC) also emphasised that the parties should act to protect the climate system on the basis of common but differentiated responsibilities;
- An international agreement known as Kyoto Protocol set targets for industrialised countries to cut their greenhouse gas emissions which support for global warming.

7. Why have issues related to global environment protection become the priority concern of states since the 1990s?

**Ans.** Since the 1990s, the environment has emerged as a significant issue of global politics. International agencies,

The growing focus on environment issues within the arena of global politics was firmly consolidated at the UN Conference on Environment and Development held in Rio de Janeiro, Brazil in June 1992. This was also called the Earth Summit which was attended by 170 states, thousands of NGOs and many MNCs.

The following are the main highlights of this summit which shows the priority environment concern of the states

- That the rich and developed countries of the first world, generally referred to as the 'global North' were pursuing a different environmental agenda than the poor and developing countries of the Third World, called the 'global South'.
- The Northern states were concerned with ozone depletion and global warming. Southern states addressed the relationship between economic development and environmental management.
- The Rio summit produced conventions dealing with climate change, biodiversity, forestry and recommended a list of development practices called 'Agenda 21'.
- The 1992, United Nation Framework Convention on Climate Change (UNFCCC) also provides that the parties should act to protect the climate on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.
- Kyoto Protocol was agreed to in 1997, based on principles set out in UNFCCC set targets for industrialised countries to cut their greenhouse gas emission.

**8.** Compromise and accommodation are the two essential policies required by states to save Planet Earth. Substantiate the statement in the light of the ongoing negotiations between the North and South on environmental issues.

**Ans.** Compromise and accommodation are the two essential policies to save Planet Earth by the states but the states from North and South have different notions towards environmental issues

- The Northern States (Developed) are concerned with ozone depletion and global warming, whereas southern states (Developing) want to address the relationship between economic development and environmental management.

- The developed countries of the North want to discuss the environmental issues which stand equally responsible for ecological conservation.
- The developing countries of the south feel that much of the ecological degradation in the world is created by developed countries through their industrial projects.
- Developed countries are supposed to take more responsibility since they cause more environmental degradation.
- The developing countries should be exempted from restrictions imposed on developed countries through various conventions since they are under process of industrialization.
- The special needs of developing countries must be taken into consideration in the process of development, application and interpretation of rules of International Environmental Law.

Therefore, all the above mentioned provisions were accepted in Earth Summit, 1992, while adopting common but differentiated responsibilities.

**9.** The most serious challenge before the states is pursuing economic development without causing further damage to the global environment. How could we achieve this? Explain with a few examples.

**Ans.** The economic development without causing further damage to the global environment can be achieved by adopting the following approaches

- The approach to development should be of sustainable development i.e. economic growth with ecological responsibility. For example, Earth Summit 1992.
- There should be more cooperation over the global commons i.e. Earth's atmosphere, Antarctica, the ocean floor and outer space.
- The implementation and proper execution of Kyoto Protocol in achieving targets of greenhouse gas emissions.
- Forest clearing in the Third World which continues at an alarming rate must be stopped.
- The mineral industry's extraction of Earth, use of chemicals and clearance of vegetation and other activities should be checked.
- The use of renewable resources should be encouraged.



# CHAPTER PRACTICE

## Objective Type Questions

### Multiple Choice Questions (MCQs)

1. Which of the following is/are accounted as the major environmental problems across the globe?

(a) Forest depletion (b) Ozone depletion  
(c) Overgrazing (d) Both (a) and (b)

**Ans.** (d) Both (a) and (b)

2. This conference led to the establishment of a global action plan to promote sustainable development in 1992, Brazil. This is .....

(a) World Summit on Sustainable Development.  
(b) UN Conference on Environment and Development.  
(c) General Assembly Special session on the Environment.  
(d) UN Sustainable Development Summit.

**Ans.** (b) UN Conference on Environment and Development.

3. Which of the following fact is incorrect regarding the Environmental Movements?

(a) Various organisation works in collaboration for addressing environmental concerns.  
(b) These are diverse and powerful social movements with long-term visions.  
(c) New forms of political action are reinvented within these movements.  
(d) These movements are generally violent in nature.

**Ans.** (d) These movements are generally violent in nature.

4. Which among the following is the first global treaty to explicitly address climate change?

(a) Montreal Protocol, 1987  
(b) UN Framework Convention on Climate Change (UNFCCC), 1992  
(c) Kyoto Protocol, 2005  
(d) Paris Agreement, 2015

**Ans.** (b) UN Framework Convention on Climate Change (UNFCCC), 1992

5. Which of the following countries are not a part of Paris Agreement?

(a) Yemen (b) Libya  
(c) The United States of America (d) Both (a) and (b)

**Ans.** (d) Both (a) and (b)

6. Which among the following is/are the environmental issues that are concerned of global politics?

(a) The decline in the cultivable land throughout the world.  
(b) Grasslands have been overgrazed and fisheries over

**Ans.** (d) All of the above

7. When was the United Nations Conference on Environment and Development held in Rio de Janeiro, Brazil?

(a) 1972 (b) 1992 (c) 1982 (d) 1994

**Ans.** (b) 1992

8. Which of the following statement(s) is/are correct about UNFCCC.

(a) It provides that parties should act to protect the climate system.  
(b) It should be on the basis of equity.  
(c) It is an International environment treaty adopted in 1992.  
(d) All of the above

**Ans.** (d) All of the above

9. What are the main causes of global warming?

(a) Deforestation  
(b) Increased use of fossil fuels  
(c) Increase intensive agriculture activities  
(d) All of the above

**Ans.** (d) All of the above

10. Arrange the following in a correct sequence.

A. UN Sustainable Development Summit  
B. UN Conference on Sustainable Development  
C. General Assembly Special Session on the Environment  
D. United Nations Conference on Environment and Development

### Codes

(a) 2, 4, 3, 1 (b) 1, 2, 4, 3  
(c) 4, 3, 2, 1 (d) 3, 4, 2, 1

**Ans.** (c) 4, 3, 2, 1

11. Global common include Earth's .....

(a) Atmosphere (b) Arctic region  
(c) Environment (d) Lithosphere

**Ans.** (a) Atmosphere

12. Which one of the following agency of UN is related to Environmental issues?

(a) UNDP (b) UNEP (c) UNESCO (d) UNHRC

**Ans.** (b) UNEP

13. The agency which is concerned in

14. Which one of the following Treaty is wrongly matched.

- (a) Antarctic treaty-1959
- (b) Montreal Protocol-1987
- (c) Kyoto Protocol - 1999
- (d) Antarctic Environmental Protocol-1987

**Ans.** (c) Kyoto Protocol-1999

15. Choose the incorrect statement regarding the statement.

Agenda 21 is in the favour of

- (a) Economic growth
- (b) Environmental conservation
- (c) Social development
- (d) Employment generation

**Ans.** (d) Employment generation

16. Which of the following Acts was passed to encourage the use of renewable energy?

- (a) The Energy Conservation Act of 2001
- (b) The Electricity Act of 2003
- (c) The Antarctic Treaty of 1959
- (d) None of the above

**Ans.** (b) The Electricity Act of 2003

17. Choose the correct statement.

- I. The Club of Rome, published a book in 1972 entitled Limits to Growth.
- II. In 1987, Brundtland Report, Our common futures was published.
- III. The Rio Summit produced conventions dealing with climate change, biodiversity forestry and recommended a list of development called Agenda 21.
- IV. Common but differentiated responsibilities were declared at the Earth Summit in 1992.

**Codes**

- (a) I and II
- (b) III and IV
- (c) I, III and IV
- (d) All of these

**Ans.** (d) All of these

18. Which among the following are greenhouse gases?

- (a) Methane
- (b) Carbon dioxide
- (c) Hydro-fluoro Carbon
- (d) All of these

**Ans.** (d) All of these

19.



- (c) Scarcity of both land and water
- (d) Scarcity of Natural Resources

**Ans.** (b) Scarcity of water

### Assertion-Reason Questions

**Directions** (Q. Nos. 20-22) In the questions given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option.

- (a) Both A and R are true and R is the correct explanation of A
- (b) Both A and R are true, but R is not the correct explanation of A
- (c) A is true, but R is false
- (d) A is false, but R is true

20. **Assertion** (A) Global atmosphere is warming up.

**Reason** (R) The depletion of the stratospheric ozone layer has resulted in an increase in ultraviolet radiation reaching the Earth.

**Ans.** (b) Both A and R are true, but R is not the correct explanation of A

21. **Assertion** (A) Sustainable development is essential for the economic growth of the country.

**Reason** (R) Sustainable development ensures that environment-friendly measures are adopted for carrying out the production process.

**Ans.** (a) Both A and R are true and R is the correct explanation of A

22. **Assertion** (A) India, China and other developing countries were exempted from the requirements of the Kyoto Protocol.

**Reason** (R) Their contribution to the emissions of greenhouse gases during the industrialisation period was not significant.

**Ans.** (a) Both A and R are true and R is the correct explanation of A.

### Passage Based Objective Type Questions

1. Study the following passage carefully and answer the questions that follow. **Modified Delhi 2015**

The growing focus on environmental issues within the arena of global politics was firmly consolidated at the United Nations Conference on Environment and Development held in Rio de Janeiro, Brazil, in June 1992. This was also called the Earth Summit. The summit was attended by 170 states, thousands of NGOs and many multinational corporations. Five years earlier, the 1987 Brundtland Report, Our

What was obvious at the Rio Summit was that the rich and developed countries of the First World, generally referred to as the 'Global North' were pursuing a different environmental agenda than the poor and developing countries of the Third World, called the 'Global South'. Whereas the Northern states were concerned with ozone depletion and global warming, the Southern states were anxious to address the relationship between economic development and environmental management.

- (i) Which Summit has been referred in the above passage?  
(a) Earth Summit  
(b) Kyoto Protocol  
(c) World Summit on Sustainable Development  
(d) UN Sustainable Development Summit

**Ans.** (a) Earth Summit

- (ii) Which of the following countries are known as Third World Countries?  
(a) USA (b) UK  
(c) India and South Africa (d) France

**Ans.** (c) India and South Africa

- (iii) The environmental agenda of Global North is based on .....  
(a) Economic development  
(b) Environmental management  
(c) Ozone depletion and global warming  
(d) Climate awareness

**Ans.** (c) Ozone depletion and Global warming

- (iv) Global South adopted a different ideology to address the relationship between .....  
(a) Industrial development and Economic development  
(b) Economic Development and Environmental Management  
(c) Global Warming and Climate Change  
(d) Ozone Depletion and Pollution

**Ans.** (b) Economic Development and Environmental Management

- (v) Agenda 21 is related with  
(a) Earth Summit (b) Kyoto Protocol  
(c) Montreal Protocol (d) UNFCCC

**Ans.** (a) Earth Summit

### Very Short Answer Type Questions

1. Define the term Environmental Movement or activism?

**Ans.** Environmental movements or activism refers to the

2. What are the features of environmental movements?

**Ans.** Following are the features of environmental movements

- New forms of political action are reinvented within environmental movements.
- Environmental movements are the most vibrant, diverse and powerful social movements across the globe, which have raised new ideas and long-term visions of our activities.

3. How environmental movements play a significant role in the society?

**Ans.** Environmental movements play a significant role in the society in the following ways

- It helps to create awareness among the masses as more people become aware regarding the effects of human activities on the environment.
- These movements advocate for re-use and the recycling of non-biodegradable products such as plastics, obsolete electrical equipment and many others.

4. Explain the main causes of climate change?

**Ans.** The main causes of climate change are

- Increased use of fossil fuels such as coal, oil and gas to generate electricity, run cars and other forms of transport and power manufacturing and industry.
- Practicing afforestation because living trees absorb and store carbon dioxide.
- The increase practices of intensive agriculture which emits greenhouse gases like methane and nitrous oxide depletes the ozone hole.

5. Suggest any two steps to be taken by the governments to check pollution and save environment.

CBSE 2015

**Ans.** The two steps to be taken by the government to check pollution and save environment are

- (i) Clean production and pollution prevention.
- (ii) Ecosystem management.

6. Identify the most important outcomes of the Rio Summit.

CBSE 2015

**Ans.** The outcomes of the Rio Summit were

- There was an agreement on combining economic growth with ecological responsibility.
- The Summit started the discussion and debate on environmental issues at global level.

7. What is UNFCCC?

**Ans.** The 1992, United Nations Framework Convention Climate Change (UNFCCC) provides that the parties

8. What is meant by environment? Suggest any two steps for the environmental improvement.

**Ans.** Environment refers to surroundings of a region.

It can be improved by taking following steps

- More focus should be on afforestation i.e. planting more trees to maintain ecological balance, prevent soil erosion and enhance water cycle also.
- Eco-friendly industries should be set-up and industrial effluents should be disposed with scientific methods and industries should be established at far away places from residential areas.

9. Mention any two environmental issues that have become the concern of global politics.

**CBSE 2018**

**Ans.** The environmental issues which are causes of concern to the global politics are

- (i) The cultivable land area is declining throughout the world and existing agricultural land is losing fertility. Grassland have been overgrazed and fisheries over-harvested.
- (ii) Water bodies have suffered extensive depletion and pollution which severely restricted food production.

10. Is there any difference between the perspective adopted by the rich and the poor nations to protect the Earth at Rio-Summit?

**Ans.** Yes, the rich and the poor nations adopted different perspectives to protect the Earth at Rio-Summit. These were

- The rich countries were called as Global North, whereas the poor countries were called Global South.
- Northern states showed concern with ozone depletion and global warming whereas Southern states showed concern for economic development and environmental management.

### **Short Answer Type Questions**

1. Which steps must be adopted to conserve the natural resources?

**Ans.** Following steps must be adopted to conserve the natural resources

- Afforestation, preventing the felling of immature and young trees and creating awareness amongst the local people about planting and nurturing trees may help in conserving forests.
- Terrace farming in hilly regions, contour ploughing, controlling the shifting cultivation, overgrazing and plugging the gullies. Some of are

purposes will help in conservation of the invaluable water resource.

- Minerals are non-renewable resources need to be conserved through efficient utilisation, development of better technology of extraction and purification, recycling of minerals and use of substitutes.

2. "The Indian Government is already participating in global efforts through a number of programmes related to environmental issues". Give any four examples to support the statement.

**Delhi 2016**

or Describe any three steps taken by the Indian Government to check the environmental degradation.

**All India 2015**

**Ans.** Initiatives undertaken by the Indian Government in global efforts through a number of programmes to check environmental degradation are

- (i) India's National Auto Fuel Policy mandates cleaner fuels for vehicles. The Energy Conservation Act, passed in 2001, outlines initiatives to reform energy efficiency.
- (ii) The Electricity Act of 2003, supports the use of renewable energy. Presently, India is importing natural gas and encouraging the adoption of clean coal technologies. It shows India's sincere efforts in this direction.
- (iii) The Indian Government is also sincere to start a 'National Mission on Biodiesel'. Nearly, 11 million hectares of land is being used to produce biodiesel.
- (iv) India has also one of the largest renewable energy programmes in the world.

3. "States have common but differentiated responsibilities towards environment". Analyse the statement giving suitable examples.

**Delhi 2013**

**Ans.** The given statement is true due to the following reasons

- The developing countries feel that much of the environmental degradation in the world is the product of industrial development undertaken by the developed countries. If they have caused more degradation, they must also take more responsibility for undoing the damage.
- Developing countries are in the process of industrialisation and they must not be subjected to the same restrictions. They must be taken into account in the development application and interpretation of rules of international environmental law. This argument was accepted in the Rio Declaration at the Earth Summit in 1992 and is called 'common but differentiated responsibilities.'
- The 1992 United National Framework Convention on Climate Change (UNFCCC) also provides that the states should act to protect the climate system on the basis of equality and in accordance with their common but differentiated responsibilities.

**Ans.** **Earth Summit** The growing focus on environmental issues within the coliseum (arena) of global politics was firmly consolidated at the United Nations Conference on Environment and Development held at Rio de Janeiro, Brazil, in June 1992. This was named as the 'Earth Summit' in which 170 states, NGOs and MNCs participated in this summit.

**Usefulness of Summit** The Rio Summit produced conventions dealing with climate change, biodiversity, forestry and advocated a list of development practices called 'Agenda 21'.

The relevant part of the Rio declaration says that states shall cooperate in the spirit of global partnership to conserve, protect and restore the health integrity of the Earth's eco-system. The developed countries acknowledged the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technological and financial resources they command.

**Outcome of Rio Summit** Rio summit coined the term 'global commons' and differentiated responsibilities. It focussed on ecological conservation. Rio summit started the environmental issues and discussions at global level.

**5.** What are the major problems of ecological issues?

**Ans.** A major problem underlying all ecological issues relates to the difficulty of achieving consensus on common environmental agendas on the basis of vague scientific evidence and time frames.

- The discovery of the ozone hole over the Antarctic in the mid 1980's revealed the opportunity as well as dangers inherent in tackling global environmental problems.
- At the same time, the history of outer space as a global commons shows that the management of these areas is thoroughly influenced by North-South inequalities.
- As with the Earth's atmosphere and the ocean floor, the crucial issue here is technology and industrial development. This is important because the benefits of exploitative activities in outer space are far from being equal either for the present or future generations.

## Long Answer Type Questions

**1.** Define climate change and discuss any three global initiatives on climate change in detail.

**Ans.** Climate change refers to a long-term change in the average weather patterns that have come to define Earth's local, regional and global climates.

The global initiatives taken on climate change are discussed below

them to stop producing substances that damage the ozone layer, such as chlorofluorocarbons (CFCs). The protocol has succeeded in eliminating nearly 99 per cent of these ozone-depleting substances.

- **UN Framework Convention on Climate Change (UNFCCC), 1992** It was ratified by 197 countries including the United States. It is also considered a landmark accord or a first global treaty to explicitly address climate change. It established an annual forum, known as the Conference of the Parties, or COP, for international discussions aimed at stabilizing the concentration of greenhouse gases in the atmosphere. These meetings produced the Kyoto Protocol and the Paris Agreement.
- **Kyoto Protocol, 2005** It was adopted in 1997 and came into force in 2005, which is the first legally binding climate treaty. It is an international agreement setting targets for industrialised countries to cut down their greenhouse gas emissions. China, India and other developing countries were exempted from the requirements of Kyoto Protocol.

**2.** What is the significance of Kyoto Protocol? Is India a signatory to this protocol? **Delhi 2009**

**Ans.** The significance of Kyoto Protocol is stated in the points below

- Kyoto Protocol frames an action plan so as to reduce emission of greenhouse gases proportionately for global North and global South countries of the world.
- It had cleared the confusion regarding responsibilities of all countries belonging to global North and global South.
- United Nations Framework Convention on Climate Change (UNFCCC) has set out the principles and allocated different targets for preserving global common. It decided that global North will provide global South with financial and technological resources so as to meet existing commitments.
- India, China and other developing countries are exempted from the responsibility regarding reduction in greenhouse gas emissions.

Yes, India is a signatory to Kyoto Protocol.

**3.** Explain the role of environmental movements to meet the challenge of environmental degradation. **Delhi 2016**

**Ans.** The role of environmental movements to meet the challenge of environmental degradation is very important. It is justified from the points below

- Some of the most significant responses to environmental challenges have come not from government but rather from groups of environmentally conscious volunteers around the world

- The forest movements of the South, in Mexico, Chile, Brazil, Malaysia, Indonesia, Continental Africa and India are facing lots of pressure. The process of forest clearing in the Third World Countries is on at an alarming rate, despite 30 years of environmental activism.
- In the Philippines, a big network of groups and organisations campaigned against the Western Mining Corporation. Vehement opposition to the company in its own country Australia is based on anti-nuclear sentiments and support for the basic rights of Australian indigenous peoples.
- Another group of movements are involved in struggles against mega-dams. In every country where mega-dams are being built, we find the environmental movements opposing the projects. Basically anti-dam movements are pro-river movements for more sustainable and equitable management of river systems and valleys. The Narmada Bachao Andolan is one of the best known of these movements.

#### 4. Analyse India's stand on Environmental issues.

Or Explain any four steps taken by the government of India to curb the emissions of greenhouse gases?

- Ans.** India has a very positive stand on environmental issues and plays a dominating role among the Asian countries
- India signed and rectified the 1997 Kyoto protocol in August 2002.
  - At the G-8, Meeting in June 2005, India pointed out the per capita emission rate of the developing countries are a tiny fraction of those in the developed world.
  - India's international negotiation position relies heavily on principles of historical responsibility as enshrined UNFCCC.
  - India has initiated different programmes and policies. Such as National Auto Fuel policy, The Electricity Act 2003, The Energy Conservation Act 2001.
  - India has initiated various programmes and policies such as National Auto Fuel policy, The Energy Conservation Act 2001, The Electricity Act 2003 to improve environment.
  - India wants that SAARC countries should adopt a common position on major global environment issues, so that the regions voice carries greater weight.

## Picture Based Questions

- Observe the picture given below and answer the following questions.



- In which year and where the Earth Summit was held?
- What is being shown in the above pictures? What is the importance of forests for us?
- Discuss the environmental concerns in global politics.

- Ans.**
- The Earth Summit on environment issues was held in Rio de Janeiro, Brazil (South America) in June, 1992.
  - A dense rain forest is shown above. Just below, it is shown that these forests are being felled relentlessly. Another is the mangrove forest. Forests stabilise the climate, moderate water supplies and harbour the biodiversity on land.
  - Earth atmosphere, ocean floors, outer space and Antarctic region are global commons. Any country in the world have no claim or coverage on these visible and invisible entities. As the regions described above are global commons, only world politics can get enforced rules and regulation for their conservation.

2. Observe the cartoon given below and answer the following questions.



- (i) What does the cartoon represent?  
(ii) Which countries are being shown here?  
(iii) What message does this picture convey?

- Ans.** (i) The cartoon represents the methods adopted by industrialised countries to fulfil their essentials from weaker nations.  
(ii) The stronger country like the USA and weaker nations like Iraq are shown here.  
(iii) This picture conveys a message that resources are the real strength of a nation and neo-colonialism plays politics to obtain it.

## CHAPTER ASSESSMENT

### Objective Type Questions

1. Why the environmental concerns are becoming important in global politics?  
(a) Due to loss of expansion and fertility (b) Due to lack of safe water and sanitation  
(c) Due to deforestation (d) All of these
2. Which of the following statement(s) is/are incorrect about wilderness forest?  
(a) It is an outside area in which plants are left to grow naturally.  
(b) These are mostly found in the South.  
(c) Wilderness-oriented perspectives have been predominant in Australia, Scandinavia, North America and New Zealand.  
(d) Many of the wilderness issues have been renamed as biodiversity issues.
3. How many countries ratified the UN Framework Convention on Climate Change (UNFCCC), 1992?  
(a) 120 (b) 169 (c) 197 (d) 193
4. Which of the following statement is incorrect regarding the Paris Agreement?  
(a) It requires all countries to set emissions-reduction pledges.  
(b) It aims to reach global net-zero emissions.  
(c) Countries set their own targets under this agreement.  
(d) There are different mechanisms to ensure the targets are met on time.
5. Tehri Dam Movement continued from 1980's to .....  
(a) 2001 (b) 2003  
(c) 2004 (d) 2005

### Very Short Answer Type Questions

1. What does UNEP stands for?
2. Write any two measures that have been taken by the Indian Government to improve the environment.
3. Why conservation of natural resources is vital for overall growth?
4. What is UNFCCC?

### Short Answer Type Questions

1. What was UN Sustainable Development Summit? When was it held?
2. What was Earth Summit?
3. Elaborate the relevance of Montreal Protocol, 1987.
4. Give any two environmental connection of global politics.
5. What is Kyoto protocol?

### Long Answer Type Questions

1. What are the various categories of environmental movements? Explain.
2. What are environmental concern in global politics? Elaborate.