

**Revision Notes**  
**Chapter 8**  
**Environment and Society**

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- Social relationships with the environment have changed over time and they vary from place to place.
- There are a few environmental problems that demand attention.
- All societies have an ecological basis. The term 'ecology' denotes the web of physical and biological systems and processes of which humans are one element.
- The ecology of a place is also affected by the interaction between its geography and hydrology.
- Cultural interventions due to human actions can also modify the ecology of a place. For instance, the use potato today in India though seems to be natural was actually a modification in environment by cultural interventions due to human actions.
- Ecology indeed has been modified by human actions over a period of time. For instance, what appears to be a natural feature of the environment such as aridity or flood proneness is often produced by human intervention. Deforestation in the upper catchment of a river may make the river more flood-prone.
- It is often difficult to separate and distinguish between the natural and human factors that brings ecological change. For instance, an agricultural farm is a human transformation of nature. The city environment is also a human artifact.
- When there is interaction between biophysical ecology and human interventions, it leads to emergence of social environment. This interaction is a two-way process, where nature shapes society and society shapes nature.
- The interaction between environment and society is shaped by social organisation. It is basically the relationship that different social groups have with property. This property relation determines how and by whom natural resources can be used.
- Social organisation influences how different social groups relate to their environment.
- The relationship between environment and society also reflect different social values, norms and knowledge systems. For instance, values underlying capitalism have

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supported commodification of nature, turning it into objects that can be bought and sold for profit.

### **Relationship between environment and society**

- The nature versus nurture debate is a long standing controversy about the effects of biology and social systems on individuals and their behaviour.
- The nature side argues that people are shaped primarily by genetics and biology. Nurture side alternatively argues that our participation in social life is the most important determinant of who we are and how we behave.
- Hence, environment shapes society and it in turn shapes individuals' behaviour.

### **Risk society**

- According to Anthony Giddens, a risk society is “a society increasingly preoccupied with a future that generates the notion of risk.
- For instance, incidents like nuclear disaster of Chernobyl, industrial accidents like Bhopal and Mad cow disease in Europe shows the dangers inherent in industrial environments and that the human population is living in a risk society.
- We consider ourselves as living in risk societies because human relations with the environment have become increasingly complex in modern society due to spread of industrialisation.
- The complex industrial technologies and modes of organisation require sophisticated management systems which are often fragile and vulnerable to error. We do not fully grasp the technologies and products we use. Hence, are unaware of the risk involved.

### **Major Environment Problems and Risks**

#### **Resource Depletion**

- Resource depletion refers to exhaustion of non-renewable natural resources.
- Using up of non- renewable resources is one of the most serious environmental problems.
- Depletion of fossil fuels like petroleum is always in news. The depletion and destruction of water and land is occurring at a rapid pace as aquifers accumulated with water are getting emptied to meet growing demands of intensive agriculture,

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industry and urban centres.

- Other major rapid resource depletion includes biodiversity habitats like forests, grasslands and wetlands largely due to expansion of agriculture.
- The risks or adverse consequences due to resource depletion are many fronts. For example, water crisis, loss of fertile soil, flood risk, etc.

## **Pollution**

- Pollution is one of the major environmental problems.
- Different types of environmental pollutions are air pollution, water pollution and noise pollution.
- Air pollution is considered to be a major environmental problem in urban and rural areas.
- Sources of air pollution include emissions from industries and vehicles, burning of woods and coal for domestic use.
- Indoor air pollution from cooking fire is also a major source of risk especially in rural homes due to poor ventilation.
- Water pollution is a serious problem affecting surface as well as groundwater.
- Sources of water pollution include domestic sewage, factory waste, runoffs from agricultural farms using synthetic fertilisers and pesticides.
- Noise pollution is mostly caused in city. Sources of noise pollution include amplified loud speakers, political campaigns, vehicle horns, traffic, construction works, etc.
- Various risks or consequences due to pollution
  - Air pollution can cause respiratory problems resulting in serious illness and death.
  - Indoor pollution from fire used for cooking inside poorly ventilated homes can put village women at serious risks.
  - WHO estimates that almost 600,000 people died due to indoor pollution in India in 1998 and almost 500,000 of them were in rural areas.
  - Water pollution can cause water borne diseases, contaminated drinking water.
  - Noise pollution can cause hearing impairments due to sound energy produced.

## **Global Warming**

- Global warming is a major environmental problem caused by release of gases like

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carbon dioxide, methane, etc.

- There are multiple risks and consequences faced by the society due to global warming. Significant rise in global temperatures can result in climate change projected to melt polar ice-fields and rise in sea level.
- Climate changes can lead to submerging of low-lying coastal areas and also affect the global ecological balance. It will result in greater fluctuations and uncertainty in climates across the globe.
- Global warming is likely to result in greater fluctuations and uncertainty in climates across the world.

### **Genetically modified organism**

- Genetically modified organisms are the outcome of a new technique of gene-splicing allowing scientists to import genes from one species to another and introducing new characteristics.
- Genetic modifications are done to reduce growing time, increasing size and store life of a product. However, there are numerous risk and consequences due to this.
- Human community knows very little about the long term effects of genetic modifications on those who consume these foods and on the ecosystem.
- Moreover, agricultural companies can use this technique to create sterile seeds preventing farmers from reusing them and forcing them to be dependent on such companies.

### **Natural and man-made environmental disasters**

- Human society has faced lots of risk and consequences due to natural and man-made environmental disasters.
- The Bhopal disaster of 1984, when a toxic gas leak from the Union Carbide factory, it killed about 4000 people, and the tsunami of 2004 are the most recent examples of man-made and natural environmental disasters.

### **Environmental problems are also social problems**

- Environmental problems are actually social problems because environmental problems affect different social groups differently due to social inequality.
  - Social status and power determine the extent to which people can protect themselves
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from environmental crises or overcome them.

- Overcoming environmental problems by certain groups can sometimes actually worsen environmental disparities.
- Certain environmental problems might be of universal concern and not related to specific social groups but how these problems are pursued may not be universally beneficial to all due to how public priorities are set.
- Securing public interests from environmental crises can actually serve the interests of particular politically and economically powerful groups and hurt the interests of poor and politically weak. Thus, environment as a public interest is a hugely debated topic.
- Varied interests and ideologies related to the environment by different groups in societies generate environmental conflicts.
- To address such environmental problems, it is required to change the environment-society relations that exists in society. To change environment society relations, it needs efforts to change relations between different social groups.
- Changed social relations between different social groups will give rise to different knowledge systems and modes of managing the environment.