

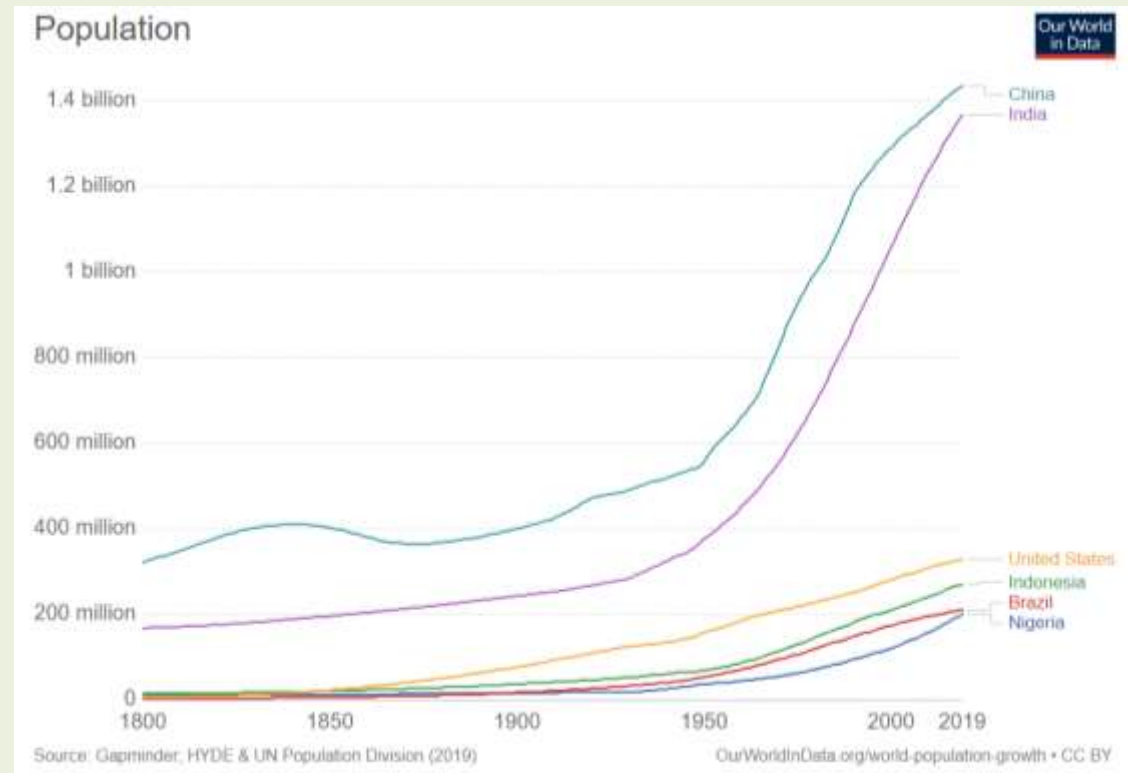
A photograph of a lush green forest with a waterfall and a stream. The waterfall is on the left, cascading over rocks. The stream flows from the waterfall towards the right. The forest is dense with green foliage. The image is used as a background for the title slide.

Environment and Human Population

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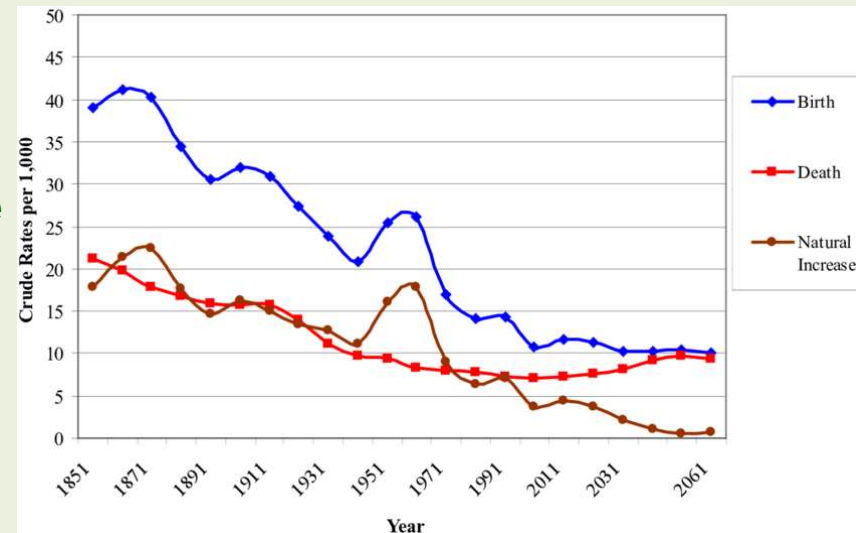
Human Population and Environment

- Human population of the world has got doubled during the last 50 years.
- The carrying capacity of the planet earth will be greatly stretched and exceeded if the present rate of population growth continues.



Population Growth

- The increase in the number of individuals in a population is known as population growth.
- **Demography**
 - The study of human population trends is called demography
- **Factors Deciding the Growth or Decline of Population**
 - **Birth Rate** - Number of births per thousand people in a geographical area.
 - **Death rate** - Number of deaths per thousand people in a geographical area.
 - **Migration** - Rate of change in population for a specific area.



Population Growth

- **Causes of Population Growth**

- Availability of cure for many life-threatening diseases
- Preference for sons
- Custom of early marriages
- Improvement in public health
- Illiteracy

- **Effects of Population Growth**

- Excessive exploitation of natural resources
- Unemployment
- Lack of proper health and sanitation facilities
- Environmental pollution

Resettlement and Rehabilitation

- **Reasons for Displacement of Human Habitation**
 - **Natural hazards** – Earthquakes, cyclones, landslides, floods, drought, volcanic eruptions, and epidemic diseases
 - **Anthropogenic factors** – Developmental activities such as construction of dams, roads, tunnels, etc., which increase the risks of calamities such as floods and landslides. Other factors include accumulation of wastes and environmental pollution



Problems Faced by Displaced People

- The compensation for the lost land is often not paid or the payment is delayed.
- Basic infrastructure and amenities are not provided in the new area.
- Very often, temporary camps become permanent settlements.
- Ethnic and caste differences make it difficult for the refugees to live peacefully with the communities already living in the area.



Environmental Ethics

- Creating a moral sense of environmental conservation in each person is called environmental ethics.
- **The Contrasting Views of environmental ethics**
 - Utilitarian justification
 - Ecological justification



Environmental Ethics

- **Environmental Equity and Priority Principle**
 - Always respect all nature especially in cases where strong human rights are at stake.
- **Environmental ethics: Possible Solutions.**
 - One should respect the power of environment and apply it for the benefits of humankind.
 - One should place the highest priority on health, safety, and environmental protection while using environmental products.
 - One should be sensitive to ethical and social issues regarding the environment.

Public Awareness

- The methods to generate environmental awareness generally falls in two categories :
 - **Formal Method**
 - Introduction of Environmental Studies as a course in schools and colleges.
 - **Non Formal Method**
 - Mass media such as newspapers, magazine, radio, T.V., etc.
 - Organizing meetings, seminars and conferences
 - Organizing various competitions
 - Through folk songs, street plays, TV serials, etc.



Disaster Management

A *disaster* is defined as a sudden event or calamity that causes large- scale damage and destruction of human life and property.

Types of Disasters

Natural Disasters

- Air-related – Hurricanes, cyclones, storms, etc.
- Water-related – Floods, drought, etc.
- Earth-related – Earthquakes, landslides, volcanic eruptions, etc.

Man-made Disasters

- Industrial accidents
- Wars, riots, terrorism, etc.
- Toxic spills
- Transportation accidents

Disaster Management

Objectives:

1. Reduce, or avoid, losses from disasters
2. Assure assistance to victims
3. Achieve rapid and effective recovery

Disaster management:

4. Mitigation: Minimizing the possible effects of a disaster
5. Preparedness: Planning how to respond to a disaster
6. Response: Taking immediate measures to save life and property, providing medical relief, etc.
7. Recovery: Returning the community to normal conditions

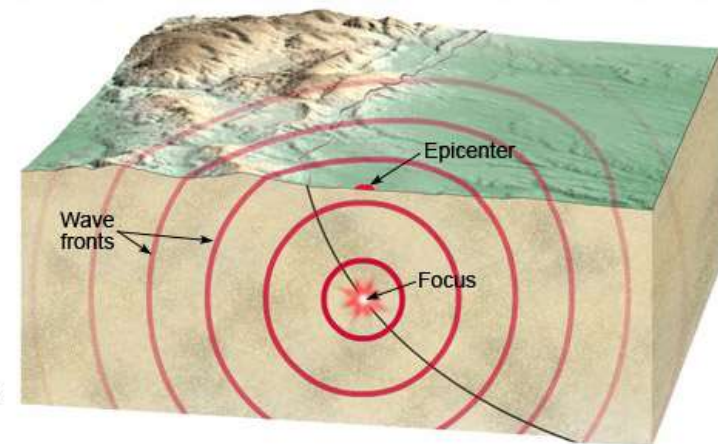
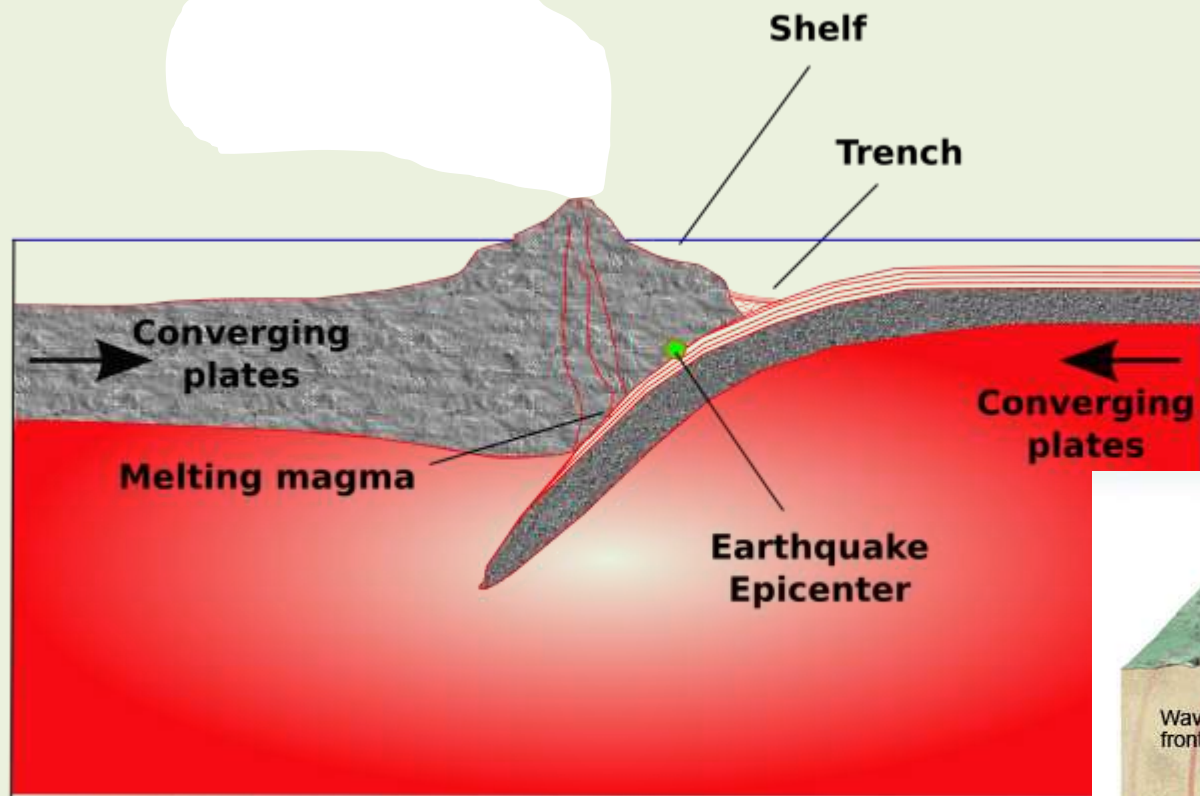
Earthquake

The term *earthquake* is used to describe any seismic event, caused naturally or as a consequence of human activities, that leads to the generation of devastating seismic waves.

Causes of Earthquake

- Movement of hot gases and magma
- Volcanic activities
- Stress buildup due to water pressure
- Tectonic stress generated by movement of tectonic plates





This PPT should be used as reference only. Reading books (mentioned in syllabus) is mandatory for the preparation of the examinations.

Effects of Earthquake

- Destruction and demolition of buildings, dams, etc. Large-scale damage to life and property
- Increased incidence of fire, landslides, etc.
- Increased incidence of *tsunami* waves.



Management of Earthquakes

- Marking earthquake-sensitive areas
- Construction of houses, factories, dams, bridges, etc., with appropriate design and materials and strategically placed vibration absorbers
- Forecast and early prediction of earthquakes
- Creating public awareness regarding the steps to be taken during emergencies
- Relief measures through timely support by individuals, government, and non-governmental organizations

Landslides

Landslides are natural phenomena during which large amounts of landmass slide downwards from hilly areas, mainly because of gravity, destroying everything lying in the path.

Causes of Landslides

- Earthquakes
- Glaciers and Torrential rain
- Construction of dams, bridges, tunnels, roads, etc
- Use of explosives for breaking rocks during mining
- Deforestation of mountain slopes

Effects of Landslides

- Rocks, large debris, and sliding landmasses destroy urban and rural habitation
- Damage to roads, dams, bridges, etc.
- Obstruction of river flow increasing the incidence of flood
- Severe damage to crops and agricultural lands

Management of Landslides

- Construction activities should be done only after properly evaluating the geological and geographic conditions.
- Regulating rate of water flow also helps in controlling landslides.
- Agriculture at slopes should be avoided as far as possible.
- Relief task through economic help supporting resettlement and rehabilitation of affected people at individual community and organizational levels should be available