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Geographical Perspective on Selected Issues and Problem

This unit covers important environmental and social issues related to geography, focusing on pollution types, rural-urban migration, slum problems, land degradation, and waste management in India.

Environmental Pollution: Water Pollution, Air Pollution, Noise Pollution, Urban Waste Disposal

Environmental pollution arises from the release of harmful substances and energy from human activities, affecting air, water, land, and noise quality.

Types of Pollution

- **Air Pollution:** Addition of contaminants like dust, fumes, gases, smoke, and vapour harmful to humans, flora, and fauna. Major sources include combustion of fossil fuels, mining, and industries.

- **Water Pollution:** Degradation of water quality due to industrial, agricultural, and cultural activities. Industries such as leather, pulp and paper, textiles, and chemicals are major contributors. Natural sources include erosion and decay but human activities are the main concern.
- **Noise Pollution:** Unbearable noise from factories, construction, vehicles, aircraft, sirens, and loudspeakers causing discomfort and health issues. Noise intensity decreases with distance from the source.
- **Land Pollution:** Caused by solid waste dumping including metals, plastics, glass, and industrial waste leading to health hazards and environmental damage.

Urban Waste Disposal

Urban waste includes solid wastes from households, industries, and commercial activities. Improper disposal causes health hazards by attracting disease vectors and polluting water bodies. Waste should be treated as a resource for energy and compost production. Untreated waste releases toxic gases like methane.

Exam Questions

Q1: What are the main sources of water pollution in India?

Answer: The main sources are industrial waste, agricultural runoff, and cultural activities such as pilgrimages and tourism.

Q2: How does noise pollution affect urban areas?

Answer: Noise pollution causes discomfort, health problems, and is mainly caused by factories, vehicles, construction, and loudspeakers.

Rural-Urban Migration, Problems of Slums, Land Degradation

This section discusses the causes and effects of rural-urban migration, challenges faced by slum dwellers, and the causes and control of land degradation in India.

Rural-Urban Migration

Migration from rural to urban areas is driven by higher demand for labor in cities, fewer job opportunities in villages, and uneven development. This migration leads to rapid urbanization and growth of slums.

Problems of Slums

Slums are overcrowded residential areas with poor housing, inadequate sanitation, lack of clean water, and insufficient basic amenities. Residents often work in low-paid, unorganized sectors and face social exclusion, poverty, and health risks.

Land Degradation

Land degradation refers to the decline in land productivity due to natural and human causes such as soil erosion, waterlogging, salinisation, and deforestation. It threatens agricultural sustainability and can lead to wasteland formation.

The National Remote Sensing Agency classifies wastelands caused by natural agents (e.g., rocky areas, desert sands) and human activities (e.g., mining, degraded forests).

Exam Questions

Q1: What are the main causes of rural-urban migration?

Answer: High demand for labor in urban areas, lack of jobs in rural areas, and uneven development.

Q2: Define social exclusion in the context of slum dwellers.

Answer: Social exclusion is the process by which slum dwellers are denied access to social rights and privileges due to poverty and marginalization.

Q3: What are the effects of land degradation?

Answer: Reduced agricultural productivity, increased wasteland, and environmental imbalance.

Solved Examples

Example 1: Explain how industrial activities contribute to water pollution.

Solution: Industries discharge untreated waste containing chemicals, heavy metals, and toxins into water bodies, contaminating water and harming aquatic life.

Example 2: Describe measures to control noise pollution in urban areas.

Solution: Measures include enforcing noise regulations, using sound barriers, restricting loudspeakers, and promoting green zones.

Practice Set

Easy

- List the four main types of pollution.
- What is a slum?

Moderate

- Explain the causes of land degradation.
- Describe the health problems faced by slum dwellers.

Challenging

- Evaluate the effectiveness of measures to control urban waste disposal.
- Discuss the impact of rural-urban migration on urban infrastructure.

Answer Key

- Four main types of pollution: air, water, land, noise.
- Slum: Overcrowded, poorly built residential area with inadequate amenities.
- Causes of land degradation: soil erosion, waterlogging, salinisation, deforestation, mining.
- Health problems in slums: diseases like typhoid, cholera, respiratory issues, malnutrition.
- Urban waste control measures include segregation, recycling, composting, and waste-to-energy technologies.
- Rural-urban migration strains urban infrastructure like housing, sanitation, and transport.

Quick Reference

- **Pollution Types:** Air, Water, Land, Noise
- **Major Pollutants:** Industrial waste, vehicle emissions, solid waste
- **Slum Characteristics:** Overcrowding, poor sanitation, social exclusion
- **Land Degradation:** Decline in land productivity due to natural and human causes
- **Waste Management:** Reduce, reuse, recycle, compost, waste-to-energy

Glossary

Environmental Pollution

Release of harmful substances and energy from human activities affecting the environment.

Social Exclusion

Denial of access to social rights and privileges due to poverty or marginalization.

Land Degradation

Decline in the productive capacity of land caused by natural or human factors.

Slum

Overcrowded urban area with poor housing and inadequate basic services.

Noise Pollution

Unwanted or harmful sound that affects human health and well-being.

Chronology of Environmental Issues in India

Time Period / Year	Event / Change	Importance
1974	Water (Prevention and Control of Pollution) Act	First legislation to control water pollution in India
1981	Air (Prevention and Control of Pollution) Act	Legal framework to control air pollution
2014	Launch of Swachh Bharat Mission	National campaign to improve sanitation and waste management
Ongoing	Urbanization and migration	Rapid growth of slums and increased environmental challenges

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