



BHARATHIDASAN UNIVERSITY

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Programme: M.A., HUMAN RESOURCE MANAGEMENT

Course Title : Natural Resource Management

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Unit-III

LWF Resources

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LWF Resources

Agenda

- Land Resources
- Water Resources
- Food Resources
- Case Studies
- Challenges and Solutions

Land Resources

- Land as a Resource:
- Foundation of ecosystems and human activities
- Types of Land Use:
- Agriculture, urban, forestry, wasteland

Dry Lands and Land Use Classification

- Dry Lands:
- Characteristics and significance
- Land Use Classification:
- Agricultural, industrial, recreational, conservation

Land Degradation

- Definition: Decline in land quality
- Causes:
 - Deforestation, mining, urbanization
- Impacts:
 - Reduced productivity, loss of biodiversity

Man-Induced Landslides

- Causes:
- Mining, deforestation, construction
- Impacts:
- Infrastructure damage, loss of life
- Mitigation:
- Reforestation, slope stabilization

Soil Erosion

- Definition: Removal of topsoil by wind and water
- Causes:
 - Deforestation, overgrazing, poor farming practices
- Prevention:
 - Contour farming, cover crops

Water Resources

- Types of Water Resources:
- Surface water, groundwater
- Importance:
- Drinking, agriculture, industry

Over-Utilization of Water Resources

- Causes:
- Population growth, industrial demand
- Impacts:
- Depletion of aquifers, reduced river flow
- Solutions:
- Water conservation, sustainable usage

Floods and Droughts

- Floods:
- Causes: Heavy rainfall, poor drainage
- Impacts: Infrastructure damage, loss of life
- Droughts:
- Causes: Climate change, over-extraction
- Impacts: Agricultural failure, water scarcity

Conflicts Over Water

- Causes:
- Sharing of transboundary rivers, water scarcity
- Examples:
- Cauvery dispute, Nile basin conflicts
- Solutions:
- Negotiations, equitable distribution

Dams: Benefits and Problems

- Benefits:
- Irrigation, hydroelectric power, flood control
- Problems:
- Displacement, ecosystem disruption
- Examples:
- Three Gorges Dam, Sardar Sarovar

Food Resources

- World Food Problems:
- Hunger, malnutrition, unequal distribution
- Causes:
- Poverty, climate change, conflict

Agriculture and Overgrazing

- Changes Caused by Agriculture:
- Deforestation, monocropping
- Effects of Overgrazing:
- Soil compaction, desertification

Modern Agriculture Practices

- Effects of Modern Agriculture:
- Loss of biodiversity, soil degradation
- Fertilizer and Pesticide Problems:
- Pollution, health hazards

Water Logging and Salinity

- Water Logging:
- Causes: Poor drainage, excessive irrigation
- Impacts: Reduced soil productivity
- Salinity:
- Causes: Evaporation of irrigation water
- Impacts: Soil toxicity

Case Study: Land Resources

- Example: Dust Bowl, USA
- Causes: Over-cultivation, drought
- Impacts: Loss of livelihoods, migration

Case Study: Water Resources

- Example: Aral Sea Crisis
- Causes: Over-irrigation, mismanagement
- Impacts: Ecosystem collapse, health issues

Case Study: Food Resources

- Example: Green Revolution in India
- Benefits: Increased food production
- Challenges: Soil degradation, water scarcity

Conclusion

- Summary:
- Sustainable management of land, water, and food resources is essential
- Call to Action:
- Adopt conservation practices, promote awareness
- Thank You! Questions?