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Programme: M.A., HUMAN RESOURCE MANAGEMENT

Course Title : Natural Resource Management

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Unit-I

Introduction of Natural Resource Bases

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Introduction to Natural Resource Bases

Agenda

- Concept of Resource
- Classification of Natural Resources
- Factors Influencing Resource Availability
- Distribution and Uses
- Interrelationships Among Resources
- Ecological, Social, and Economic Dimensions
- Concerns on Natural Resources

Concept of Resource

- Definition: Elements of the environment useful to humans
- Characteristics:
- Naturally occurring
- Economically valuable
- Finite or renewable

Classification of Natural Resources

- Renewable Resources:
 - Water, Air, Soil
- Non-Renewable Resources:
 - Fossil Fuels, Minerals
- Inexhaustible Resources:
 - Sunlight, Wind

Factors Influencing Resource Availability

- Geological Factors:
 - Mineral deposits, soil formation
- Climatic Factors:
 - Temperature, rainfall patterns
- Technological Factors:
 - Extraction and utilization technologies

Distribution of Resources

- Uneven Geographic Distribution:
- Minerals in certain regions
- Oil reserves in limited areas
- Population Density:
- Resources consumed more in populated areas

Uses of Natural Resources

- Agriculture:
 - Soil, water, and fertilizers
- Energy:
 - Fossil fuels, wind, and solar power
- Industry:
 - Minerals and raw materials

Interrelationships Among Resources

- Water and Soil:
- Irrigation for agriculture
- Energy and Minerals:
- Fossil fuels for energy production
- Forests and Climate:
- Carbon sequestration and biodiversity

Ecological Dimensions of Resource Management

- Maintaining Ecosystem Balance:
- Sustainable use of resources
- Biodiversity Conservation:
- Protecting habitats
- Climate Change Mitigation:
- Reducing resource-related emissions

Social Dimensions of Resource Management

- Community Involvement:
- Participatory resource management
- Equity in Distribution:
- Access for marginalized groups
- Cultural Significance:
- Sacred forests, water bodies

Economic Dimensions of Resource Management

- Economic Growth:
- Resources as inputs for industries
- Employment Generation:
- Mining, forestry, agriculture
- Trade Opportunities:
- Export of surplus resources

Concerns on Natural Resources

- Overexploitation:
- Depletion of non-renewable resources
- Pollution:
- Air, water, and soil contamination
- Deforestation:
- Loss of biodiversity

Sustainability in Resource Management

- Sustainable Practices:
- Crop rotation, renewable energy
- Policy Implementation:
- Laws for conservation
- Technological Innovations:
- Efficient resource utilization

Case Study: Water Resource Management

- Challenge:
- Water scarcity in arid regions
- Approach:
- Rainwater harvesting, desalination
- Outcome:
- Improved water availability

Case Study: Renewable Energy

- Challenge:
- Dependence on fossil fuels
- Approach:
- Adopting solar and wind energy
- Outcome:
- Reduced carbon emissions

Global Resource Management Initiatives

- United Nations' Sustainable Development Goals (SDGs):
- Goal 12: Responsible consumption and production
- Goal 15: Life on land

Role of Technology in Resource Management

- GIS and Remote Sensing:
 - Mapping and monitoring resources
- IoT in Agriculture:
 - Smart irrigation systems
- AI for Predictive Analysis:
 - Forecasting resource availability

Community Participation in Resource Management

- Empowering Local Communities:
- Involvement in decision-making
- Education and Awareness:
- Workshops on conservation
- Traditional Knowledge:
- Incorporating indigenous practices

Challenges in Resource Management

- Political Challenges:
- Conflicts over resource ownership
- Economic Constraints:
- Limited funding for conservation
- Climate Change:
- Impact on resource availability

Conclusion

- Summary:
- Natural resources are vital for survival and development
- Call to Action:
- Adopt sustainable practices
- Thank You! Questions?