



BHARATHIDASAN UNIVERSITY

Tiruchirappalli-620024

Tamil Nadu, India

Programme: M.A., HUMAN RESOURCE MANAGEMENT

Course Title : Natural Resource Management

Course Code : 22HRM4EC8

Unit-IV

FFO Resources

Dr. T. KUMUTHAVALLI

Associate Professor

Department of Lifelong Learning

FFO Resources

Agenda

- Forest Resources
- Fish and Marine Resources
- Exploitation and Challenges
- Case Studies
- Sustainable Management

Forest Resources

- Major Forest Types:
- Tropical, temperate, boreal
- Characteristics:
- Biodiversity, carbon storage, ecological roles

Tropical Forests

- Features:
- High biodiversity, rapid growth
- Threats:
- Deforestation, logging
- Regions:
- Amazon, Congo, Southeast Asia

Temperate Forests

- Features:
- Seasonal climate, deciduous and coniferous trees
- Uses:
- Timber, recreation
- Regions:
- North America, Europe

Boreal Forests

- Features:
- Cold climate, coniferous trees
- Importance:
- Carbon sink, wildlife habitat
- Regions:
- Canada, Russia, Scandinavia

Deforestation

- Definition: Clearing of forested land
- Causes:
 - Agriculture, urbanization, logging
- Impacts:
 - Loss of biodiversity, climate change

Case Study: Amazon Rainforest

- Issue: Rapid deforestation
- Causes:
 - Cattle ranching, logging
- Impacts:
 - Biodiversity loss, global warming

Timber Extraction

- Uses:
- Construction, paper, furniture
- Issues:
- Overharvesting, habitat destruction
- Sustainable Practices:
- Selective logging, certification

Mining and Forests

- Effects of Mining:
- Deforestation, soil erosion, pollution
- Impact on Tribals:
- Loss of land, cultural disruption
- Mitigation:
- Rehabilitation, regulation

Dams and Forests

- Effects of Dams:
- Flooding of forests, displacement of people
- Case Study: Narmada Valley Project
- Solutions:
- Afforestation, compensation

Fish and Marine Resources

- Types of Marine Resources:
- Fish, seaweed, shellfish
- Importance:
- Food security, livelihoods

Production and Status of Fish Resources

- Global Fish Production:
- Capture fisheries, aquaculture
- Status:
- Overfishing, declining stocks

Dependence on Fish Resources

- Communities:
- Coastal and island populations
- Economic Value:
- Employment, exports

Unsustainable Harvesting

- Methods:
- Trawling, dynamite fishing
- Impacts:
- Habitat destruction, bycatch
- Solutions:
- Regulations, marine protected areas

Challenges in Resource Supply

- Issues:
- Climate change, pollution, overfishing
- Global Trends:
- Declining fish stocks, rising demand

New Prospects in Marine Resources

- Technologies:
- Sustainable aquaculture, fish farming
- Alternatives:
- Seaweed cultivation, biotech innovations

Case Study: Coral Reefs and Fisheries

- Threats:
- Overfishing, climate change
- Conservation Efforts:
- Marine parks, restoration projects

Sustainable Management

- Strategies:
- Community-based conservation, eco-certification
- Policies:
- Fisheries management plans, international agreements

Conclusion

- Summary:
- Importance of forests and marine resources
- Call to Action:
- Adopt sustainable practices, promote awareness