

Course Code: CE 447

Course Title: Climate change and sustainable development

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LECTURE: 05

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Lecture plan

- Measures to conserve biodiversity
- Environmental issues
- Priority areas
- Ecological footprint

What measures can be taken to conserve biodiversity?

Measures to conserve biodiversity

- National policy planning authority should recognize the necessity for conservation of biodiversity and ensure multisectoral coordination for it
- Government agencies should be strengthened for this purpose and new agencies should be created whenever necessary
- A digitized database on biodiversity
- Awareness of conservation of biodiversity among all sections of society
- Conservation regulation should be updated and enforced strictly
- Studies and research of environmentally sound biotechnology and evaluation of possible impact on biodiversity
- Improving land use pattern and protecting forest land
- Reducing social and economic imbalances
- Emphasizing on community based conservation
- Bringing endangered species in captivity for breeding

Environmental Issues

- Emissions to air
 - Acid rain
 - Movement of pollution
 - Ozone depletion
 - Global warming
 - Air pollution
- Discharges to water
 - Effluent discharges
 - Groundwater pollution
 - Contaminated marine life
 - Destruction of reefs

Environmental Issues

- **Quality of life**
 - Noise
 - Dust
 - Litter
 - Scenery
 - Polluted beaches
- **Solid waste**
 - Landfill
 - Waste management
 - Recycling
 - Packaging
 - incineration
- **Natural environment**
 - Deforestation
 - Sustainable environment
 - Damage to ecosystem
 - Desertification
 - Loss of Bio-diversity
 - Soil pollution

Priority Areas

- Land degradation
- Hill cutting and cultivation in the slopes
- Improper use of agrochemicals
- Use of arsenic contaminated water in agriculture
- Water pollution from industrial effluents, human waste
- Air pollution from industries, different mode of transports
- Management of clinical and hazardous waste

Priority Areas (Cont...)

- Choice of technology and raw materials in industries
- Land use planning for urban development
- Vehicular air pollution and noise pollution
- Safe water access and sanitation facility
- Conservation of biodiversity
- Energy security
- Proper environmental management of ecologically critical areas

Ecological Foot Print

- Ecological footprint of a population is an area of land and water that would be required to sustainably provide all of a particular population's resources and assimilate all of its wastes
- Ecological Footprint is a measure of the impacts human have on environment
- Unit is Global Hectare (Gha)

Ecological Foot Print

- **Factors**

- Population
- Land size
- Per capita consumption
- Crop land and any other land that grow food, grow biofuel, graze animals, produce meat, produce wood, dig up minerals and the area of land needed to absorb wastes (solid, liquid, gaseous)