

**Course Title: Environmental Economics**

**Course Code: 502**

1. **Issues in environmental economics** An introduction to environmental economics, Concept Environment – Ecology – Eco-system – Anthropocentrism – Egocentrism - Environmentalism – Nexus between Economics and Environment – Pollution – Bio-diversity – Externalities – Sustainable development – Private cost versus social cost - economy-environment interaction, the Material Balance Principle, Entropy Law, Market failure, property rights, open access resources, collective action.
2. **Environmental Issues in India** Natural resource availability, Utilization and Environmental Problems Definition and classification of Resources: Renewable and non-renewable resources – Conservation of resources and methods of conservation – Pollution: Domestic: Solid waste, Health and Sanitation and Unsafe Drinking water. Industrial: Air pollution, Water pollution, Soil pollution - Agricultural land pollution: Soil erosion, soil fertility - Degradation of vegetations (forests) – degradation of common property resources (CPRs) – Global environmental problems : Green house effect - Global warming - Acid Rain. Causes and effects of environmental degradation, Urban and Rural environmental problems, Energy-environment interaction
3. **Economics of Exhaustible Resources** Hotelling's rule; Solow-Harwick's Rule; Market structure and optimal extraction policy; Uncertainty and the rate of resource extraction; Resource scarcity.
4. **Economics of Renewable Resources** Economic models of forestry and fisheries; Extinction of species; Economics of Biodiversity
5. **Environment - Development Trade-off** Relation between development and environment stress; . Market equilibrium analysis in natural resource economics – Market failure - Economics of pollution control - Limits to growth – Coase's theorem Environmental Kuznet's curve, Concept of sustainable development; Indicators of sustainability; Various approaches for Environmental Accounting Environmental impact assessment (EIA) – benefit/ Cost Analysis – Hedonic approach – Contingent valuation methods (9 hrs)
6. **Environment Policy** World Conference on Human Environment (1972) – World Commission on Environment and Development (Brundtland Commission), 1984 – World Conference on Development and Environment (1992) - Agenda -21 Kyoto agreement – Seattle Conference and Environment – India's Environmental Policies – Forest Policies – Central and State Pollution Control Boards.
7. **Case Studies and Project Reports** : The Regional study of environmental impact of sugar, spinning, dairy industries – Large scale and small-scale industrial units

– Investigations of use of fertilizers, irrigation, dams, natural resources and soil salinity etc. should be undertaken.

### **BASIC READING LIST**

1. Baumal, W. J. & W. E. (1997), *The Theory of Environmental Policy*, Prentice Hall, Englewood-Cliffs.
2. Bharadwanj, R. (1983), *Managing Limits to Growth*, Asian and Pacific Development Centre, Kuala Lumpur.
3. Dorfman, R. & N. Dorfman (Eds.) (1977), *Economics of the Environment*, W. W. Norton, New York.
4. Nijkamp, P. (Ed.) (1976), *Environmental Economics*, Vol. I & II, Martinus Nijhoff, Leiden.
5. Charles Peirign (1987), *Economy and Environment* Cambridge University Press, New York.
6. Ali, S. A. (1979), *Resources for Future Economic Growth*, Vikas Publishing House, New Delhi.
7. Rathore, M. S. (Ed.) (1996), *Environmental and Development*, Rawat Publications, Jaipur.
8. Garge, M. R. (Ed.) (1996), *Environmental Pollution and Protection*, Deep and Deep Publications, New Delhi.
9. Lodha, S. L. (Ed.) (1991), *Economics of Environment*, RBSA Publishers, Jaipur.
10. Rajlakshmi N. and Dhulasi B. (1994), *Environomics*, Allied Publishers Ltd., New Delhi.
11. Singh, G. N. (Ed.) (1991), *Environmental Economics*, Mittal Publications, New Delhi.
12. Mehta, C. S. (1994), *Environment and Law*, RBSA Publishers, New Delhi.
13. Karpagam, M. (1993), *Environmental Economics*, Sterling Publishers, New Delhi.
14. World Bank Report on Human Development.
15. The Hindu Survey of Environment: Annual Reports.