

Approval: 4th Senate Meeting

Course Name	: Environmental Economics
Course Number	: HS-653
Credits	: 3-0-0-3
Students intended for	: B. Tech./M.S./Ph.D.
Elective or Compulsory	: Elective
Semester	: Odd or Even

Course Preamble:

This course examines the economic concerns informing public decision making on environmental issues. It focuses on the contentious issues of resource management geared towards sustainable development and the equally important allied themes which arise in assessing the claims of development versus nature, of the present over posterity, of the prospect of assured benefits over the 'contingent and unforeseeable', of the ethical dilemmas that accompany the question of exploiting natural resources for profit. In this course case examples of sustainable development projects small, medium, and large from various regions of the world especially India will be discussed. In particular, factors responsible for their success and failure will be analyzed. It aims to sensitize students to resource and environmental problems & the need for resolving them with the aid of policy tools forged by the economic and managerial sciences.

Course Outline:

Module I (9 lectures)

Environmental Ecology and Economy; Pollution and Externalities - Market Inefficiency, Public Goods, Externalities and Pareto efficiency; Measurement of Environmental Values; the Theory of Environmental Policy- Pigouvian Taxes and Subsidies, Marketable Pollution Permits and Mixed Instruments (the charges and standards approach), Coase's Bargaining Solution and Collective Action; Efficiency and Cost-Benefit Analysis.

Module II (10 lectures)

Sustainable Development: Concepts and Stakeholders; Stakeholder Boundaries and Sustainable Development; Natural Resource Management and Sustainable Development; Global System for Sustainable Development- World Development Reports, United Nations and Sustainable Development; UNDP Millennium Development Goals; Concept of Green Economy - Different Principles.

Module III (10 lectures)

Theories of Optimal use of Exhaustible and Renewable Resources; Environment and Development trade off; Environmental and Natural Resource Problems in India; Framework for Sustainable Development in India; Renewable Energy Programs under Five Year Plans - Energy Issues and Policy Options for India; Population Growth - Poverty and Environment.

Module IV (13 lectures)

Role of different organizations in Environment Protection -Central, State; Local Bodies and NGOs. The Institutions of Joint Forest Management; Special Economic Zones and the Environment; Corporate Social Responsibility and Sustainability; Environmental Problems of Agricultural

Development; Industrial Development and Environmental Ethics; Environment Friendly Size of Firm, Limits to Growth Theory; Environmental Education and Awareness; Ramsar Convention on Wetlands, Water Crisis-Conservation of Water; Case Studies of Narmada Dam, Tehri Dam, Almetti Dam.

Course Readings:

1. David A. Anderson (2010), Environmental Economics and Natural Resource Management (second edition), Pensive Press.
2. Bhattacharya, R.N. (2001), Environmental Economics; an Indian Perspective, Oxford University Press, New Delhi.

Further Readings:

1. H. Wiesmeth (2012), Environmental Economics. Theory and Policy in Equilibrium. New York, Springer.
2. Charles Kolstad (2010), Environmental Economics, Second Edition, Oxford University Press, New Delhi.
3. Baumal, W. J. & W. E. (1997), the Theory of Environmental Policy, Prentice Hall, Englewood-Cliffs.
4. Agarwal, S.K. (1985), Environment and Natural Resources Economics, Scott Foresman & Co., London.
5. Tietenberg, T. (1994), Environmental Economics and Policy, Harpar Collins, New York.
6. Anil Markandya (2001), Dictionary of Environmental Economics, Earthscan Publications Ltd. UK.

Rest of the assigned reading will be drawn from recent newspaper, magazine articles and reports.