

Semester V
ECODSC – 301
Environmental Economics
Total Credit: 4
Teaching Hours: 45 hours

Course Description:

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies. Economic implications of environmental policy are also discussed as well as valuation of environmental quality, quantification of environmental damages, tools for evaluation of environmental projects such as cost-benefit analysis and environmental impact assessments.

Course Outcome:

After completion of the course the students will be able to understand the scope of environmental economics and its significance, how economic tools are useful to control environmental parameters. Further, students will learn different aspects of valuation of environmental goods and qualities. They are expected to understand and evaluate environmental economic policies. Finally, the students will be able to international environmental issues and their resolutions.

Unit 1: Introduction

Concept of environmental economics, Nature and Scope of environmental economics, Subject-matter of environmental economics, ecology-economy interaction, Externalities and market failure, Pareto optimality, Coase theorem and property rights.

Unit 2: Pollution Abatement and Environmental policy

Pigouvian taxes and effluent fees, approaches to allocation of public goods and tradable pollution permits, choice between taxes and subsidies, market based environmental regulatory instruments vs command and control.

Unit 3: Climate Change and Sustainability Issues

Trans-boundary environmental problems, Climate change and Global warming – economic impacts, Ozone layer depletion – root causes, Problems associated with deforestation, Biodiversity conservation, waste management, Environmental Kuznets relationship (curve), Global Environmental Summits on emission norms and its outcomes.

Unit 4: Benefits from environmental improvements

Non-market values and measurement methods, methods of environmental valuation, integrated environmental and economic accounting, environmental education, policy instruments for environmental protection, risk assessment and perception in environmental economics.

Unit 5: Sustainable development

Concept of Sustainable development, its evolution and measurement, Command and Control approach, Environmental Performance Index, Benefit-cost analysis, Sustainable policy approach to check environmental degradation and regulations, environment sustainability and e-governance.

Suggested Readings:

1. Charles Kolstad, Intermediate Environmental Economics, Oxford University Press, 2nd edition, 2010.
2. Roger Perman, Yue Ma, James McGilvray and Michael Common, Natural Resource and Environmental Economics, Pearson Education, 2003.
3. Scott Kaplan & David Wells Roland-Holst & David Zilberman, 2023. "[Environmental and Resource Economics: Theory and Practice](#)," [World Scientific Books](#), World Scientific Publishing Co.
4. R. N. Bhattacharya, Environmental Economics: An Indian Perspective, Oxford University Press, 2001.
5. P.R. Bhattacharjee, A Discourse on Environmental Economics, Srijan Graphics and Publishing House, Silchar, Assam.

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