

**CORE COURSE - XI - ENVIRONMENTAL ECONOMICS**

**Module -1 : Nexus between Economics and Environment**

Material balance principle- resilience and carrying capacity- Externalities and market inefficiency – externalities as missing markets; Property rights and externalities, non-convexities and externalities; Pareto optimal provision of public goods – Lindahl’s equilibrium, preference revelation problem and impure and mixed public goods, common property resources.

**Module -2 : The Theory of Environmental Policy**

Environmental externalities – Pigouvian taxes and subsidies, marketable pollution permits and mixed instruments (the charges and standards approach), Coase’s bargaining solution and collective action; Informal regulation and the new model of pollution control, Monitoring and enforcement of environmental regulation, Environmental institutions and grass root movements; Global environmental externalities and climatic change – Tradable pollution permits and international carbon tax, Trade and environment in WTO regime.

**Module -3 : Economics of Natural Resource Management and Sustainable Development**

Theories of optimal use of exhaustible and renewable resources; Issues in biodiversity- Environmental and development trade off and the concept of sustainable development; Integrated environmental and economic accounting and the measurement of environmentally corrected GDP; Macroeconomic policies and environment.

**Module -4 : Measurement of Environmental Values**

User values; Option values and non-use values; Valuation methods – Methods based on observed market behaviour; Hedonic property values and household production models (travel cost methods and household health production function), Methods based on response to hypothetical markets contingent valuation methods.

**Module -5 : Environmental and Natural Resource Problems in India**

Mechanism for environment regulation in India; Environmental laws and their implementation; Policy instruments for controlling water and air pollution and forestry policy; People’s participation in the management of common and forest lands; The institutions of joint forest management and the joint protected area management; Social forestry – rationale and benefits.

## Reference:

1. Baumol, W.J. and W. E. Oates (1988), The Theory of Environmental Policy, (2<sup>nd</sup> Edition) Cambridge University Press, Cambridge.
2. Bromely, D.W. (Ed.) (1995), Handbook of Environmental Economics, Cambridge University Press, Cambridge.
3. Fisher, A.C. (1981), Resource and Environmental Economics, Cambridge University Press, Cambridge.
4. Hanley, N. J. F. Shogern and B White (1997), Environmental Economics in Theory practice Macmillan.
5. Hussen, A.M. (1999), Principles of Environmental Economics, Routledge, London.
6. Jeroen, C.J.M Van Den Bergh (1999), Handbook of Environmental and Resource Economics, Edward Elgar Publication Ltd., U. K.
7. Kolstad, C.D. (1999), Environmental Economics, Oxford University Pearce, D.W. and R. Turner (1991), Economics of Natural Resource Use and Environment, John Hopkinns University Press, Baltimore.
8. Perman, R. Ma and J. McMivary (1996), Natural Resource and Environmental Economics, Longman, London.
9. Sankar, U. (Ed.) (2001), Environmental Economics Oxford University Press, New Delhi.
10. Adisheshaiah, Malcolm. S (Ed.) (1987), Economics of Environment, Lancer International, New Delhi.