

Discipline Specific Elective 03
Environmental Sociology

Total Credit=6
Total Marks 80+20=100
Total Classes: 38
Total Tutorials: 7
Class duration: 1 class=1 hour
1 tutorial= 1 hour
6 classes per week

Course Objective:

This course is designed to introduce students to the core debates of environmental sociology, different approaches within the sub-discipline and how these approaches may be used to understand environmental issues and movements in India.

	Classes	Tutorials	Marks
1. Envisioning Environmental Sociology	10	1	25
1.1 Meaning, Definition, Nature and Scope			
1.2 Realist-Constructionist Debate			
2. Environmental Approaches	16	3	25
2.1 Treadmill of Production			
2.2 Ecological Modernization			
2.3 Environmental Risk			
2.4 Ecofeminism and Feminist Environmentalism			
2.5 Political Ecology			
3. Environmental Movements in India	12	3	30
3.1 Forest based movement – Chipko			
3.2 Water based movement – Narmada			
3.3 Land based movements – Anti-mining and Seed			
3.4 Anti Big Dam Movements in North East India			

C O U R S E C O N T E N T S A N D I T I N E R A R Y

1. Envisioning Environmental Sociology [Weeks 1-3]

1.1.1. Bell, MM. (2008). *An Invitation to Environmental Sociology*. Thousand Oaks, CA: Sage 3rd ed. Ch 1.(pp. 1-5).

1.1.2. Hannigan, J. A. (1995). *Environmental Sociology*. Routledge, London and

New York, 2nd ed. Ch1 and 2. (pp. 10-15,16 - 35).

1.2.1. Leahy, T. (2007). *Sociology and the Environment. Public Sociology: An Introduction to Australian Society*. Eds. Germov, John and Marilyn, Poole. NSW: Allen & Unwin, Ch 21 (pp. 431-442).

1.2.2. Evanoff, R. J. (2005). Reconciling realism and constructivism in environmental ethics. *Environmental Values*, 61-81.

2. Approaches [Weeks 4-10]

2.1.1. Gould, K. A., Pellow, D. N., & Schnaiberg, A. (2004). Interrogating the Treadmill of Production: Everything You Wanted to Know about the Treadmill but Were Afraid to Ask. *Organization & Environment*, 17(3), 296-316.

2.1.2. Wright, E. O. (2004). Interrogating the Treadmill of Production: Some Questions I Still Want to Know about and Am Not Afraid to Ask. *Organization & Environment*, 17(3), 317-322.

2.2.1. Mol, A. P. (2002). Ecological modernization and the global economy. *Global Environmental Politics*, 2(2), 92-115.

2.2.2. Buttel, F. H. (2000). Ecological modernization as social theory. *Geoforum*, 31(1), 57-65.

2.2.3. O'Connor, J. (1994). Is sustainable capitalism possible. Is capitalism sustainable? *Political Economy and the Politics of Ecology*. The Guilford Press. Ch . (pp.152-175).

2.3.1. Beck, U. (2006). Living in the world risk society: A Hobhouse Memorial Public Lecture given on Wednesday 15 February 2006 at the London School of Economics. *Economy and Society*, 35(3), 329- 345.

2.4.1. Shiva, V. (1988). Women in Nature. In *Staying Alive: Women, Ecology and Development*. Zed Books. Ch 3.(pp.38-54).

2.4.2. Agarwal, Bina, 2007. The Gender and Environment Debate: Lessons from India. In Mahesh Rangarajan. (ed.) 2007. *Environmental Issues in India : A Reader*. New Delhi: Pearson, Longman, Ch 19.(pp. 316-324, 342-352).

2.5.1. Robbins, P. (2011). *Political Ecology: A Critical Introduction* (Vol. 16). Wiley and Sons Ltd. East Sussex, U.K. Ch 1 (pp.10-25).

3. Environmental Movements in India [Weeks 11-14]

3.1.1. Guha, R. Chipko : Social history of an environmental movement. In Ghanshyam Shah ed.(2002). *Social Movements and the State* (Vol. 4). Sage Publications Pvt. Ltd., Ch. 16 (pp.423-454).

3.2.1. Khagram, S., Riker, J. V., & Sikkink, K. (2002).Restructuring the global politics of development: The Case of India's Narmada Valley Dams. *Restructuring World Politics: Transnational Social Movements, Networks, and Norms* (Vol. 14). U of Minnesota Press. (pp.206-30).

3.3.1. Padel, F., & Das, S. (2008). Orissa's highland clearances: The reality gap in R & R. *Social Change*, 38(4), 576-608.

3.3.2. Scoones, I. (2008). Mobilizing against GM crops in India, South Africa and

Brazil. *Journal of Agrarian Change*, 8(2-3), 315-344.

3.4.1. Baviskar, Amita: In the belly of the river : Tribal Conflicts over Development in the Narmada Valley, 1995, delhi, Oxford University Press (Introduction Chapter.

3.4.2. Omvedt's, Gail : An Open Letter to Arundhati Roy, Outlook December 19, 2008(e-source)narmada.org/debates/gmail.open.letter.html.

[Projects, feature films and documentary screenings and field visits will be undertaken by students through the course]

SUGGESTED READINGS

Students will not be examined on the suggested readings but may use them for projects, and presentations that will be woven into the course.

Guha, R., & Alier, J. M. (1998). The environmentalism of the poor. In *Varieties of environmentalism: Essays North and South*. New Delhi: Oxford University Press.

Osofsky, H. M. (2003). Defining Sustainable Development after Earth Summit 2002. *Loy. LA Int'l & Comp. L. Rev.*, 26, 111.

Baviskar, A. (1999). In the Belly of the River: Tribal Conflicts over Development in the Narmada Valley. Oxford University Press.

FYUGP 2nd SEMESTER

Title of the Course : ENVIRONMENTAL SCIENCE

Course Code : VAC3

Nature of the Course : VALUE ADDED COURSE

Total Credits : 02

Distribution of Marks : 40 (End-Sem.) + 10 (In-Sem.)

COURSE OBJECTIVES:

1. To understand the various environmental challenges faced by world.
2. To create a sense of how to be more responsible towards the environment.
3. To provide fundamental knowledge of environmental science and its importance in present day context.
4. To develop strategies for the development of environmental degradation

UNITS	CONTENTS	L	T	P	Total Hours
1 (15 Marks)	ENVIRONMENTAL SCIENCE 1.1 Nature, Scope and importance of environmental Science. 1.2 Climate change, causes, societal impacts, adaptation 1.3 Sustainable development and living	8	1		9
2 (15 Marks)	ENVIRONMENTAL DEGRADATION 2.1 Land degradation: Causes and consequences. 2.2 Exploitation of surface and ground water, 2.3 Air pollution: anthropogenic causes, impact on health, agriculture, climate, hydrology	8	1		9
3 (20 Marks)	ENVIRONMENTAL CASE STUDIES AND COMMUNITY BASED ACTIVITIES 3.1 Wildlife; Poaching, man--wildlife conflicts, Conservation and mitigation. 3.2 Waste Management; Solid waste, urban waste, industrial waste and pollution; 3.3 Water management; Reuse and Rain water harvesting, Air pollution reduction and climate change mitigation	10			10
	Total	26	2		28

Where,

L: Lectures

T: Tutorials

P: Practicals

MODES OF IN-SEMESTER ASSESSMENT:

(20 Marks)

- One Internal Examination - **10 Marks**
- Others (Any one) - **10 Marks**
 - Group Discussion
 - Seminar presentation on any of the relevant topics
 - Debate

LEARNING OUTCOMES: After successful completion of this course students will be able to understand: to come up with using ethical reasoning for decision making and frame ethical issues as well as operationalize ethical choices. The course integrates various facets of human values and environment.

SUGGESTED READINGS:

1. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
2. Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
3. Mckinney, M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web enhanced edition. 639p.
4. Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB) n) Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
5. Odum, E.P., Odum, H.T., and Andrews, J. (1971). Fundamentals of Ecology. Saunders, Philadelphia, USA
6. Raven, P.H, Hassenzahl, D.M., Hager, M.C, Gift, N.Y., and Berg, L.R. (2015). Environment, 8thEdition. Wiley Publishing, USA.
7. Singh, J.S., Singh, S.P., and Gupta, S.R. (2017). Ecology, Environmental Science and Conservation. S. Chand Publishing, New Delhi. Chapter 1 (Page: 3-28)

Course Code: ECNHDSE602

Nature of the Course: Discipline Specific Elective

Full marks: 100 (Internal Assessment-20 + End

Term-80)

Course Title: Environmental Economics

Total Credit Assigned: 6

Distribution of Credit: 5 Lecture + 1 Tutorial

Course Description:

This course aims to focus on economic causes of environmental problems; in particular, how economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies. It also aims to address Economic implications of environmental policy 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.

Units		No of Lecture Hours	No of Tutorial Hours	Marks
1.	Introduction: Basic Concepts: Ecology, Environment and Economy; what is environmental economics: Definition and evolution of the subject; Environmental economics and Resource economics; The economy and the environment: Inter-linkages; Environment and Development trade off; Environmental Kuznet curve; Review of microeconomics and welfare economics: Pareto optimality, Public good and Private good, Common property resources, Private and Social cost, Public Good and Bad	15	3	16
2.	The Theory of Externalities: Externality: Meaning and types; Pareto optimality and market failure in the presence of externalities; solution to market failure: property rights and the Coase theorem.	15	3	16
3.	The Design and Implementation of Environmental Policy and Sustainable Development: Environmental Policies: Overview; Economic instruments of environmental policies: Pigouvian taxes and effluent fees, tradable permits, liability rules. Sustainable Development: Concept; Notions of Sustainability: Strong and Weak sustainability, Measurement and indicators of sustainability: The Pearce–Atkinson indicator.	15	3	16
4.	International Environmental Problems: Trans-boundary environmental problems as problems of international externalities: Global warming, Ozone layer depletion; economics of climate change; trade and environment; Pollution Haven Hypothesis; Global intervention for sustainable development	15	3	16
5.	Measuring the Benefits of Environmental Improvements: Non-Market values: Types and definitions of non-market values; measurement or valuation methods: Contingent valuation and Travel cost methods; their comparative advantages and disadvantages	15	3	16
Total		75	15	80