

## **ELECTIVE COURSE: GYE 456 : Environmental Geography**

## **Course Learning Outcomes:**

CO1. Understand the environment from different perspectives

CO2. Examine the geographical explanations for biological diversity of the world

CO3. Develop an environment perceptive when approaching complex development issues.

CO4. Evaluate the vulnerability of ecosystem services

CO5. Demonstrate methodological procedure for conducting Environment Impact Assessment

CO6. Appreciate and recognize the complexity and value of ecosystem

**Unit 1:** Nature and interdisciplinary aspect of environmental geography. Ecological approaches. Definition and meaning of environment, habitat. Ecological niche. Bio-sphere and biodiversity.

**Unit 2:** Ecosystem: Structure and functioning of ecosystem, pond as a ecosystem, food chains, food webs, food pyramid. Biomes – equatorial to tundra i.e., 11 types. Man and environmental relationships. Resource use and ecological imbalance with reference to soil, forests and energy resources. Manmade ecosystem - Urban, ecotourism, national parks and sanctuaries. Depletion of ozone, greenhouse effect and acid rain.

Unit 3: Man induced changes in environment: Environmental pollution, i.e. Air, water, noise, solid waste with special reference to India. Environmental hazards, i.e. earth as warehouses, flood, famines, landslides, avalanches, forest fires, impact of green revolution and extinction of species.

**Unit 4:** Principles of environmental management- Environmental policy of India, (post 2000AD). Environment impact assessment (EIA). Global summits and agencies of environment conservation.

## **Essential Readings:**

- 1. Anderson J.M. (1981): Ecology for Environmental Science: Biosphere, Ecosystems and Man, Arnold, London.
- 2. Balakrishnan, M., 1998. Environmental Problems and Prospects in India, in Das, R.C., et. al. Oxford & IBH Pub., New Delhi.
- **3.** Canter Chary, L. W. 1996: Environmental Impact Assessment, 2nd edition, McGraw Hill, New York
- **4.** Chichester: Marsh, W.M. and Grossa, J.M. (1996): Environmental Geography: Science, Land use and Earth Systems, John Wiley & Sons.
- 5. Das, M.C. 1993, Fundamentals of Ecology, Tata Mc Graw Hill, New Delhi.
- 6. Farmer, A. 1997. Managing Environmental Pollution, Routledge, London
- **7.** Gilpin, A. 1996: Dictionary of Environment and Sustainable Development, John Wiley and Sons Ltd.,
- **8.** Goudie, Andrew (1984) : The Nature of the Environment, Oxford Katerpring Co. Ltd. Huggett, R.J. 2002. Fundamentals of Biogeography, Routledge, London & New York.
- **9.** Maryk, Theodore .1996. Major Environmental Issues Facing 21st Century, Prentice Hall.

Middleton N.1995: The Global Casino: An .Introduction to Environmental Issues, John Wiley and Sons Inc., New York

10. Nobel and Wright (1996): Environmental Science, Prentice Hall, New York.

- 11. Odum, E.P. (1971): Fundamental of Ecology, W.B. Sanders, Philadelphia.
- 12. Roberts, N. 1994. The Changing Global Environment, 3rd edition, Blackwell Pub. Co., London.
- 13. Sharma, P.D. 1975. Ecology and Environment, Rastogi Publication, Meerut.
- 14. Singh, R.B. (ed.) (1989): Environmental Geography, Heritage, New Delhi.
- 15. Singh, R.B. and Misra, S. 1996: Environmental Laws in .India: .Issues and Responses, Rawat Pub., New Delhi:
- 16. Slaymaker, A. & Spencer T. 1998: Physical Geography & Global Environmental Change, Longman, UK.
- 17. Speth, I.G.2005. Global Environmental Challenges Transitions to a Sustainable World, Orient Longman, New Delhi
- 18. Strahler, A.H. and Strahler A.N. (1977) : Geography and Mans Environment, JohnWiley, New York.
- 19. Strahler, A.N. and Strahler, A.H. (1973) : Environmental Geosciences : Interaction between natural systems and Man, John Wiley and Sons, New York.
- 20. William, M.M. and John, G. (1996) : Environmental Geography Science, Land use and Earth System, John Wiley and Sons, New York.

