

MACEC 1.5.2 ENVIRONMENTAL ECONOMICS (Optional Paper)

Module I: Introduction

Nature, Scope and Importance of Environmental Economics -
Relationship between Environment and Economic Development.

Module II: Welfare Economics and Environment

Pareto Optimality and Competitive Equilibrium; Fundamental Theorems of Welfare Economics - 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 III: Measurement of Environmental Values

Use Values; Option values and Non-Use Values - Valuation Methods - Methods Based on Observed Market Behaviour; Hedonic Property Values and Household Production Models (Travel Cost Method and Household Health Production Function), Methods Based on Response to Hypothetical Markets, Contingent Valuation Methods.

Module IV: 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 V: Economics of Natural Resource Management and Sustainable Development -Land use-Water resources

Theories of Optimal Use of Exhaustible and Renewable Resources; 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 VI: 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.

References:

Baumol, W.J. and W.E. Oates (1988), *The Theory of Environmental Policy*, (2nd Edition), Cambridge University Press, Cambridge.

Berman, P. (ED), (1995), *Health Sector Reform in Developing Countries: Making Health Development Sustainable*, Boston: Harvard Series on Population and International Health.

Blaug, M. (1972), *Introduction to Economics of Education*, Penguin, London.

Bromely, D.W. (ED), (1995), *Handbook of Environmental Economics*, Blackwell, London.

Cohn, E. and T. Gaske (1989), *Economics of Education*, Pergamon Press, London.

Fisher, A.C. (1981), *Resource and Environmental Economics*, Cambridge University Press, Cambridge.

Hanley, N. J.F. Shogren and B. White (1997), *Environmental Economics in Theory and Practice*, Macmillan.

Hussen, A.M. (1999), *Principles of Environmental Economics*, Routledge London.

Jeroen, C.J.M. van den Bergh (1999), *Handbook of Environmental and Resource Economics*, Edward Elgar Publishing Ltd., U.K.

MACEC 1.5.3 DEMOGRAPHY (Optional Paper)

Module I: Nature and Scope of Demography

Basic Concepts in Demography - Demography and Other Disciplines like Economics, Sociology and Geography.

Module II: Population Theories

Pre-Malthusian, Malthusian and Post-Malthusian Theories - Theory of Optimum Population - Biological, Social and Economic Theories of Population. The Theory of Demographic Transition.

Module III: Growth and Pattern of World Population

Differences and Variation in Population Growth, Pattern and Trend in Developed and Developing Countries.

Module IV: Sex and Age Structure

Patterns of Sex and Age Structure in more Developed and less Developed Countries (MDC, LDC) Determinants of Sex and Age Structure - Demographic Effects of Sex - Age Structure Economic and Social Implications of Sex and Age Structure.

Module V: Fertility, Nuptiality and Mortality

Factors Accounting for Changes in Fertility and Mortality in the MDCs and LDCs - Social, Economic and Cultural - Infant Mortality - Characteristics of Infant Mortality, Factors Affecting Foetal and Infant Mortality.

Module VI: Population Projections

Types and Methods of Population Projection Growth Component Method - Present - Formula for Projection - Limitations.

Module VII: Migration and Urbanisation

Basic Concepts and Definitions - Importance of Migration in the Study of Population - Types of Migration - Internal, International, Temporary etc. - International Migration - Levels Trends and Differentials in the MDCs and LDCs - Factors Effecting Migration - Theories Concerning Internal Migration - Urbanisation - Distribution of Growth of Urban and Rural Population in MDCs and LDCs - Levels and Trends of Urbanisation in the MDCs and LDCs - Levels and Trends of Urbanisation in the MDCs and LDCs.

Module VIII: Population Education

Importance of Population Education in India - Policy Requirements.

Module IX: Population Policies

Population Policy 2000 in India - Shifts in Population Policies - Family Planning - Family Welfare Programmes in India.

References:

- Agarwala S.N. (1972), India's Population Problem, Tata McGraw-Hill Co., Bombay.
- Bose, A. (1996), India's Demographic Statistics, B.R. Publishing Corporation, New Delhi.
- Bogue, D.J. (1971), Principles of Demography, John Wiley, New York.
- Chenery H. and T.N.Srinivasan (eds) (1989), Hand Book of Development Economics, Vol 1&2 Elsevier, Amsterdam.
- Choubey, P.K. (2000), Population Policy in India, Kanishka Publications, New Delhi.
- Coale A.J and E.M. Hoover (1958), Population Growth and Economic Development in Low Income Countries: A Case Study of India's Prospects, Princeton University Press, Princeton.
- Gulati, S.C. (1988), Fertility in India: An Economic Study of a Metropolis, Sage, New Delhi.
- Simon J.L. (1992), Population and Development in Poor Countries, Princeton University Press.
- Srinivasan, K. (1998), Basic Demographic Techniques and Applications, Sage, New Delhi, Oxford University Press, New Delhi.
- Sryrock, H. et al (1973), The Methods and Materials of Demography, US Department of Commerce, Washington, D.C.
- United Nations (1973), The Determinants and Consequents of Population Trends, Vol. 1. UNO Publications, New York.