

CHAPTER 1 KOLSTAD

ECONOMICS & ENVIRONMENT

WHAT IS ENVIRONMENTAL ECONOMICS?

- *Impact of economy on environment*
- *Significance of the environment for economy*
- *Appropriate way of regulating economic activity to achieve balance between environmental, economic and other social goals.*

QUESTIONS TO BE ADDRESSED

- What is the discipline of environmental economics? Is it an environmental/economic policy?
- What are the policy approaches taken globally to provide a higher level of environmental quality?

This ppt deal with the first question

ENVIRONMENTAL ECONOMICS AS A DISCIPLINE

- Environmental economics (EE) and environmental policy
- EE as a sub-field of economics
- EE vs Ecological economics
- EE vs Resource Economics

Environmental Economics As a Discipline

Environmental Economics And Environment Policy

- High income and high population density -> environmental problems
- For developed countries, major concerns include - pollution and preservation of natural resources (domain of environmental policy)
- Many steps in **pollution control** fall within the domain of **environmental economics** like for pollution
 - A. Determine right amount of pollution - cost and damages to be determined
 - B. Controlling emissions by polluters - difficult for government to regulate without determining socially optimal level of pollution and knowing how to incentivise research into future domain
- **Environmental protection requires govt intervention which , in turn, requires application of environmental economics to determine proper extent of intervention**

Environmental Economics As a Discipline

Environmental Economics And Economics

- Both fields draw on each other :
 - A. Environmental economics draws on concepts of micro-economic theory and other fields in economics for cost and benefit determination
 - B. It also contributes to the larger field of economic - Non-market valuation of goods (unique to EE)
- EE is a sub-field of economics

Environmental Economics As a Discipline

Environmental Economics (EE) And Ecological Economics

- Ecological Economics -field of study that addresses relationships between ecosystems and economic systems in broad sense ; emphasises very long-term health of ecosystems.
- Central tenet- that economy is a part of nature - issues oversimplified in conventional economics
- It is normative in nature

Environmental Economics (EE) Vs Ecological Economics

- Both address same prob (making social decisions with environmental problems) but with diff perspectives:
 - A. EE from perspective of economists while Ecological economics from perspective to ecologists
 - B. Ecological economics is multi-disciplinary and accepts ppl from a wide variety of fields involving environment-society interface
 - C. Pertaining to value - Economics believes that society derives its value from individuals' values while Ecological Economics takes a bio-physical view like energy content used up for making a good - low energy is better

Environmental Economics (EE) And Ecological Economics

D. EE is relatively more constrained than Ecological economics while analysing very long-term horizons for environmental problems like global warming and disposal of nuclear waste.

- EE will use present discounted value of the sum of costs and benefits of say disposing of nuclear waste

Ecological Economics believes that no action should be undertaken if it is not sustainable in the long run. For eg: Can we continue to dump nuclear waste indefinitely?

Overtime distinction between the two has blurred

Environmental Economics As a Discipline

Environmental Economics And Resource Economics

- EE concerned with issues of market failure, excessive production of pollution and insufficient protection of natural resources - *Assessment is generally static - time is not important in specific cases like deciding right amount of pollution in an urban city.*
- Resource Economics is all about dynamics and time is an important variable. Eg: if we log a forest slowly enough, it can regenerate itself and logging can be done indefinitely.
- There exist significant overlaps between the two. Eg : Management of fishery to deal with overfishing includes market failure (EE) as well as dynamics (growth and regeneration of fishery makes it a renewable resource)

SOME ENVIRONMENTAL PROBLEMS

QUALITY OF ENVIRONMENT

- Air Pollution (by-product of energy consumption)
- Toxic Chemicals - DDT pesticides (have been banned now), lead (used to enhance automobile fuels), old toxic waste sites and accidental discharges
- Water pollution (result of organic material deposited in water which requires oxygen to decompose; Nitrate spillovers and intensive agriculture)