

# Broadening Environmental -Economic Analysis:

## Contributions of Institutional and Ecological Economics

Dr Jouni Paavola  
Centre for Social and Economic Research  
on the Global Environment (CSERGE)  
University of East Anglia

Centre for Social and Economic Research on the Global Environment



# Outline

- A comparison of conventional economic analysis, ecological economics and institutional economics in terms of:
  1. Systems ontologies
  2. Relationships between agents
  3. Human motivations
  4. Transaction costs

# Systems ontologies

<b>Approach</b>	<b>Ontology</b>	<b>Implications</b>
<b>Conventional Economics</b>	Equilibrating open systems	Environmental problems are economic problems of substitution and optimisation
<b>Ecological Economics</b>	Closed complex systems	Optimisation impossible, dealing with uncertainty and absolute limits requires robustness
<b>Institutional economics</b>	Complex social systems	Social systems are fluid and unpredictable. Learning an important input and output of environmental governance

# Independence / interdependence

- Conventional analysis assumes independence and conceptualises environmental problems as externalities.
- Institutional economics argues that externalities are instances of interdependence.
- Interdependence prevails when one agent's choices influence the alternatives or choices of other agents.
- Interdependence results in environmental conflicts and highlights that the role of environmental governance is to resolve them
- Justice and legitimacy become central for environmental decision making and governance

# Independence / interdependence

	Rival	Non-Rival
Easy Exclusion	Private Goods	Toll Goods
Difficult Exclusion	Common-Pool Resources	Pure public goods

- Sources of interdependence include:
  - attributes of environmental resources such as rival vs. non-rival use; difficulty of exclusion; multiple uses; mobility, etc.
  - Attributes of users such as numbers, heterogeneity and social capital.
- Institutional economics can unify environmental and natural resource economics

# Behavioural motivations

- Conventional rational choice models suggest that behavioural motivations are exhausted by the welfare or utility of choosing agents.
- Agents may be motivated by welfare concerns, seek intrinsically valuable outcomes, or follow deontological rules. => radical pluralism.
- Under pluralism an agent has to choose which values are to inform her choices. Agents may be motivated by different values in the same choice context and arrive at same or different choices.
- Pluralist collective choices are a matter of distributive and procedural justice rather than of optimality.

# Transaction costs

- Are ignored in the conventional economic analysis
- Transaction costs exist because of:
  - Limited cognitive capacity
  - Incentives to withhold information
  - Physical attributes of goods and resources
  - Existence of real time
  - Institutional arrangements
- Transaction costs include the costs of seeking information, conducting negotiations, making decisions, specifying contracts / institutions, and monitoring and enforcing them

# Transaction costs influence:

- To what extent involved groups can participate in collective choices and make their views and interests to count in environmental decisions;
  - Institutional rules determine what procedures agents have to use to be recognised and heard; these can differ across groups of agents.
- To what extent sought-after collective governance outcomes can be realised;
  - Transaction costs influence governance solutions in terms of what they actually address and how;
  - High transaction / governance costs can reduce effectiveness and influence outcomes;

# Conclusions

- Ecological economics and institutional economics are less reductionist and more realistic alternatives to conventional economic analysis
- As a synthesis of EE and II, institutional ecological economics makes several distinct contributions to the analysis of environmental issues;
  - It sheds light on the role of institutions in environmental governance and helps to craft new governance solutions;
  - It can justify many emergent policy strategies such as the use of the precautionary principle;
  - It justifies participation and deliberation as the basis of learning and legitimacy in environmental governance
  - It highlights the social justice aspect of environmental decisions which is ignored in conventional analysis

# Broadening Environmental -Economic Analysis:

## Contributions of Institutional and Ecological Economics

Dr Jouni Paavola  
Centre for Social and Economic Research  
on the Global Environment (CSERGE)  
University of East Anglia

Centre for Social and Economic Research on the Global Environment

