

ECON/MAST 676  
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# Environmental Economics

Lecture 17: Introduction to  
Non-Market Valuation

# Lecture 17: Introduction

- 'Pricing' or valuing environmental goods to inform decisions on environmental policy
- Examples
  - Water release from dams
  - Clean up toxic waste site
  - Water/Air quality regulations
  - Preservation of open spaces

# Lecture 1: Introduction

- 'Pricing' or valuing environmental goods to inform decisions on environmental policy
- Examples
  - Water release from dams
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Think of  
environmental  
'Service flows'

- Policy applications
  - Benefit-Cost Analysis
  - Priority Setting
  - Damage Assessment
  - Externality Pricing
  - Green Accounting
  - Advocacy

## ■ History

- 1950s Federal Agencies – especially **dams/water projects**
- 1960-80s More Federal Agencies
- 1980s **Executive Orders** → BCA
  - Beginning with Reagan and every president since has called for BCA of major pieces of legislation
- 1980s **CERCLA & OPA** → NRDA
- 1990s State agencies/Advocacy
- 2000s **Ecosystem Services**

- Market & Nonmarket

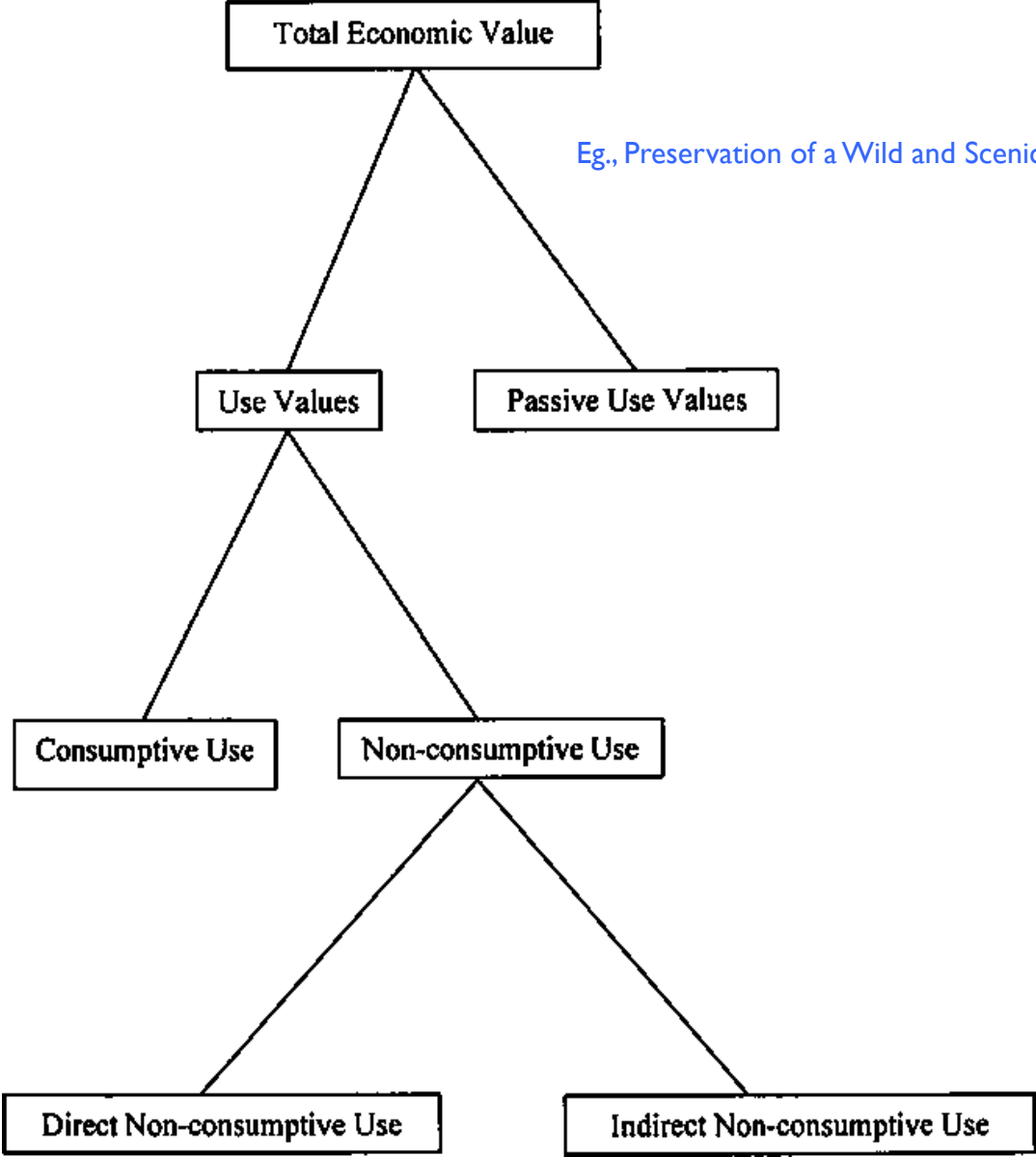
Note: We use these methods most where markets fail.

- Use & Nonuse (see next page)

- Total economic value
- Nonuse → Existence value, Passive use value

- Stated Preference (SP) & Revealed Preference (RP)

- RP → based on observed behavior
- SP → based on 'stated' behavior in a survey



Eg., Preservation of a Wild and Scenic River

- *Held & Assigned values*

- “I value loyalty” “I have a ‘land ethic’ and the values that that implies” – principles for what is good and bad are held values
- Values individuals place on a good or service undergoing some change, measured in some way



- Economic Concept of Value
  - Tradeoffs people are willing to make
  - Segerson examples of choice
    - Choice → Tradeoffs
    - Choice → Value
  - Does not have to be in money terms (but it sure is convenient)

- 'Surplus' measures of value
  - Consumer and producer surplus
  - Willingness to pay
  - Willingness to accept
  
- Individual preferences / Anthropocentric/  
Source of values does not matter
  
- Aggregation/Uncertainty (see Segerson)

- Not impact analysis
  - Oil spill
  - Gear restrictions

- The wealth (income) issue!
  - People with more \$\$ have a higher WTP
  - It will not go away but some arguments for why it may not be a big a problem as you think
    - Accept existing distribution of income
    - Kaldor-Hicks/Pareto Efficiency
    - Can present equity effects of a policy
    - Property rights and WTA