

The Regional Training Workshop Economic Valuation of the Goods and Services of Coastal Habitats

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Wrap Up of Day 1

Penporn Janekarnkij Suwanna Praneetvatakul

Introduction to Coastal Habitats

- <u>A coastal area</u> : the band of dry land and adjacent ocean space in which terrestrial processes and land uses directly affect oceanic processes and uses.
- Maintaining the benefits of coastal habitat:
 - Wise use
 - Sustainable utilization
- **Goods** of coastal habitats: forest, wildlife, forage and peat.
- Services of coastal habitats: flood control, recharge and discharge of groundwater, shoreline stabilization, nutrient retention, etc.
- Attributes: biological diversity and uniqueness to culture and heritage.

Why estimate ecosystem value?

- Not all goods and services are sold in market
- Basis for decision on type and use of habitats
- Basis for investing in the habitat's protection and/or improvement
- Determining WTP for services from ecosystem
- Determining goods and services for useful commercial
- To understand importance of habitats and resources
- Guideline for Policy makers on development process, resource management, choosing instrumental policies.

Economic valuation in policy setting

Specific policy questions:

Determining the value of the total flow of benefits from ecosystems

How much are ecosystems contributing to economic activity? It is most often asked at the national level, but can also be asked at the global, regional, or local level.

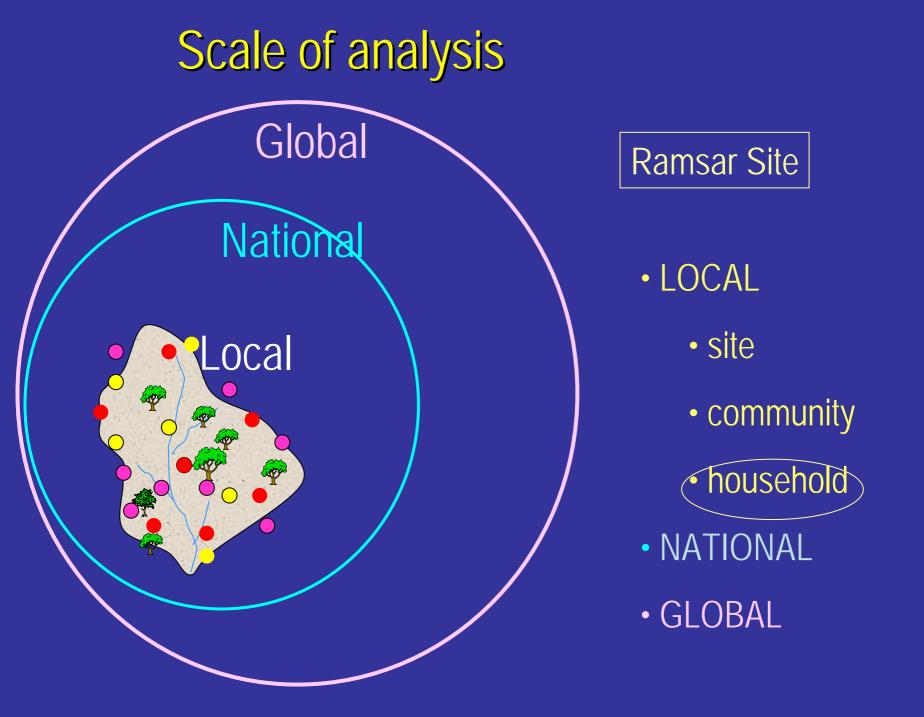
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Examining how the costs and benefits of ecosystems are distributed

Different stakeholder groups often perceive very different costs and benefits from ecosystems.

- <u>From a practical perspective</u>, understanding which groups are motivated to conserve or destroy an ecosystem, and why, can help to design more effective conservation approaches.

- <u>From an equity perspective</u>, the impact of conservation on particular groups such as the poor, or indigenous peoples must taken into consideration.



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Determining the net benefits of interventions that change ecosystem conditions

This question typically arises in a project or policy context:

<u>Valuation will help answer the following question:</u> "Would the benefits of a given conservation investment, regulation, or incentive justify its costs?" =>> CBA

It differs fundamentally from the previous question in that it asks about *changes* in flows of costs and benefits, rather than the sum total value of flows.

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Identifying potential financing sources for conservation

Knowing that ecosystem services are valuable is of little use if it does not lead to **real investments in conserving** the natural ecosystems that provide them.

<u>Valuation can help identify the beneficiaries of conservation and</u> <u>the magnitude of the benefits they receive</u>, and thus help design mechanisms to capture some of these benefits and make them available for conservation.=>> **PES**

- BENEFICIARY PAY PRINCIPLE
- POLLUTER PAY PRINCIPLE

(<u>Source</u>: Pagiola, Stefano, Konrad von Ritter, and Joshua Bishop. 2004. Assessing the Economic Value of Ecosystem. The World Bank Environment Department, Environment Department, Stefano, 8⁸

Ecological Functions and Economic Value

- Four types of ecological functions:
 - Regulation: water regulation, soil retention
 - Habitat: nursery function, refugium function
 - Production: food, medicinal, ornamental
 - Information: aesthetic, recreation, cultural, education
- Converting ecological function to economic values
 - Ecological functions provide goods and services to people
 - Use of goods and services generates value for them based on their preferences (more preferences are higher values)
 - Process of determining the values of goods and services called economic valuation.

Overview of Economic Valuation

Total economic values

- Use value: direct use value (consumptive and nonconsumptive), indirect use value (functions) and option value (option and bequest)
- Non-use value: existence value (conservation value or passive use value)
- Valuation Method (theoretical approach):
 - reveal preference approach (SP)
 - stated preference approach (RP)
- Valuation Method (practical approach):
 - Conventional market price: direct and indirect market based value
 - Surrogate market: travel cost, hedonic price
 - Hypothetical/simulated market: CVM, choice model
 - Other techniques: benefit transfer, participatory economic valuation