





# Training Session on Economic Valuation Session 1 Subsession 2: "Economic Valuation of Ecosystem Services - Why and How?"

Training on the systematic integration of economic valuation of "wet" ecosystem services into the TDA/SAP process































# Why is it important to include EV of **Ecosystem Services into decision making?**

- Awareness building and communication to the public on the overall contribution of ecosystem services to social and economic well-being.
- Determining the economic costs from losing ES.
- Better governance (consensus, conflict resolution).
- Integrating Economic Valuation of ES of ecosystems into the TDA/SAP process to advise decision-making bridging the science-policy gap (will be further discussed in Subsession 3).



























Source: IMO, 20171









# Why is it important to include EV of Ecosystem Services into decision making?



Source: Mokhamad Edliadi/CIFOR<sup>2</sup>

- Supporting improved decision making.
- Recognizing different ES values (esp. for certain ones, e.g. future generations).
- Show choices of management and investments, incl. trade-offs.
- Influence policy and regulatory frameworks.
- Influence allocation of financial resources/investments by internalizing externalities into CBA.
- Short and long-term planning for sustainability – leverage resources.
- Integrating TEV into decision making (e.g. options in a SAP).
- Information for mitigation and litigation/compensation.

































# Influencing decision making:

"YOU CAN'T EAT HIM DAVE, HE'S WORTH £4.37 TO THE LOCAL ECONOMY"



@CartoonRalph

































# Where is EV of Ecosystem Services needed in decision making processes?

- Evaluating the impacts of development policies and policy interventions that alter the condition of an ecosystem and consequently human well-being.
- Supporting the estimation of the "real" cost-effectiveness/costbenefit of an investment or project.
- Evaluating trade-offs between different ecosystem management options and choosing between competing uses.
- Assessing liability for damage to the environment.
- Creating markets for ES in order to mobilize financial resources, e.g., global carbon market and payments for ES (PES).

































### Examples of big significance include:

- Pioneers: Costanza (1997) and Daily (1997, 2000).
- The Millenium Ecosystem Assessment (2005).
- Stern-Report (2007).
- The Economics of Ecosystems and Biodiversity (TEEB) Reports (from 2010 onwards).
- Various LME valuations: CCLME, BOBLME, HCLME, GCLME...
- Baltic Stern (2013).
- And many national or sub-national studies on coral reefs (e.g. Caribbean, Australia), national parks/protected areas (e.g. UK, US), wetland values (e.g. Germany, TEEB for Water and Wetlands).

































#### The resource issue

- Economic valuations tend to be resource-intensive: time-, money- and knowledge-wise.
- Not all IW projects will have sufficient resources to do an indepth valuation.
- Hence: two Guidance Documents, less resource-intensive ("tier 1 projects") and more resource-intensive ("tier 2 projects").
- tier 1: projects which can only provide limited resources towards an economic valuation: simplified methodology using benefit transfer and market prices (if including stakeholders: more expensive...).
- tier 2: projects which can dedicate adequate funds for an original valuation of ES: in-depth valuation.

























• In terms of content: different contexts can be covered with the two methodologies... we will discuss the different "policy contexts" in more depth in session 3

Screening Analysis of ecosystem services

Tier 1 methodology (benefit transfer and market prices)

In-depth Analysis of all or some ecosystem services in the LME/river basin

Hotspot Analysis (e.g. the Great Barrier Reef)

Analysis of the impacts on ecosystems and ecosystem services of a planned, concrete project (e.g. a hydropower plant, a MPA)

Economic valuation focusing on a single ecosystem type of special interest (e.g. mangroves)

Economic valuation of one specific ecosystem service of relevance (e.g. carbon sequestration)

Economic valuation of a single pressure or an impact resulting from a pressure, and the resulting loss in ecosystem services (e.g. eutrophication)

Economic valuation to determine the value of ecosystem services for a market-based financing scheme, e.g. PES/PWS or compensation schemes.

Tier 2 methodology/in-depth assessment







## Plenary discussion: your individual context

- What is the context in your IW project area?
- Do you tend towards "tier 1" or "tier 2"?
- Do you have any experience with EV in your project area?
- Is an EV concretely planned?
- Do you have any expectations for a possible EV in your project area?



Source: Neil Palmer/CIAT, 2012<sup>3</sup>

































# Thank you!

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