How the TEEB Framework Can Be Applied: The Amazon Case Study

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CONSERVATION
INTERNATIONAL

The Amazon Case Study

- The great Amazon: An enormous diversity of landscapes, habitats and ecosystems

- Value of ecosystem services and biodiversity conservation at four different scales:
  - Global, continental, regional and local
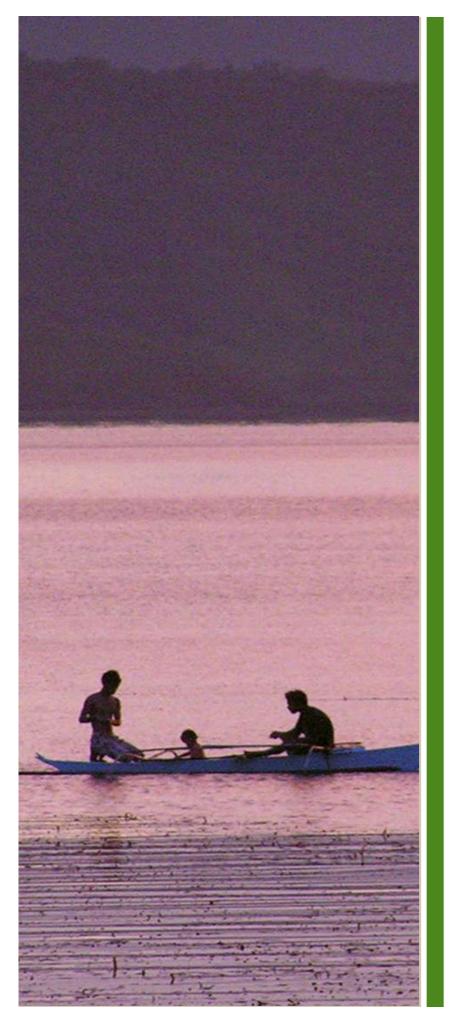
- TEEB Framework:
  - Functions, services , benefits and values

Characteristics and Values of Amazon ES: Global Scale

Global Scale

Function	Services	Benefit	Estimated value (US$)
Photosynthesis and maintenance of ecosystem structure	Carbon storage and sequestration	(Global) climate stability Revenues from carbon markets	1.5 – 3 trillion (C-stock value) 6.5–13 billion/yr

Characteristics and Values of Amazon ES: Continental Scale
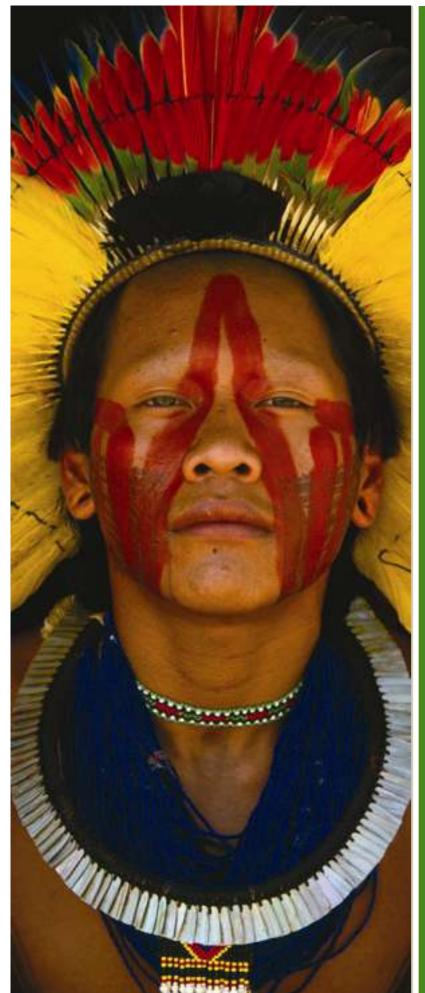
Continental Scale

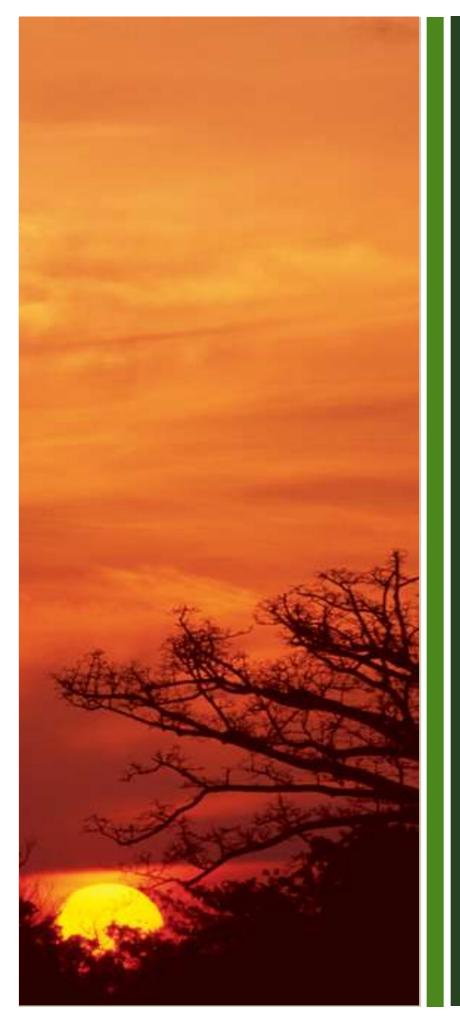| Function	Services	Benefit	Estimated value (US$)
Convective circulation 'water pump'	Climate regulation (mediation of regional and precipitation regime)	Agricultural productivity	1 – 3 billion/yr

Characteristics and Values of Amazon ES: Regional and Local Scales

Regional Scale

Function	Services	Benefit	Estimated value (US$)
Soil formation and nutrient cycling	Forest growth	Sustainable timber harvest	4 - 7 billion/yr

Local Scale

Function	Services	Benefit	Estimated value (US$)
Viable wildlife populations	Food and other natural resources	Subsistence life styles/Forest products	0.5 – 1 billion/yr

Valuation: Important Limitations and Caveats

- Valuation: Simplifications of extreme complex situations

- Public goods: The current non-market – and non price nature of many ES

- Challenge: Fine-scale estimate of forest ecosystem services and opportunity cost of forest conversion

- Policy implications: Dimension at different scales and the economic impact with their losses or reduction