



World Heritage Sites and the Integration of Biodiversity into an International PES Framework

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Outline



- **The IPES workshop – September, 2006**
- **Following up with IPES**
- **Main challenges**
- **The WHC model**

The IPES Workshop



Common Ground



- **Biodiversity and carbon were most relevant**
- **Explore ‘bundling’ opportunities**
- **Focus on the demand side**
- **High potential of international WTP for biodiversity conservation**

How Can IPES tap into this potential?

Which types of ecosystem services would be covered in an IPES scheme?



- **Biodiversity – 8 mentions (2 of which were specifically for globally significant biodiversity)**
- **Carbon – 3 mentions**
- **A couple mentions of trans-boundary ecosystems**

But also...

Ecosystem services across the board!



- Conservation of genetic diversity / of ecological resilience / of endangered species habitat
 - Foundation of ecosystem services - biodiversity
 - Services in working landscapes
 - Focus on wetlands as integrators of BD
 - Wildlife conservation
 - Start with carbon sequestration – more well known and easier to sell to participants, climate change current issue
 - Combined carbon-biodiversity credits (avoided deforestation)
 - Carbon sequestration through good agricultural practice
 - Wetland ecosystems that contain significant biodiversity and provide important local service as well
 - Ecosystem conservation → existence and option
 - Water regulation services
- Biocarbon
 - Pollination

How would the system work?



- **Over 50 different answers!!!!**
- **Certification of biodiversity friendly bio-fuels**
- **A tobin style tax based on externality valuation**
- **Coordination between MEAs and issues**
- **Biodiversity offsets** ● **Biodiversity banks**
- **Multinationals signing agreements of responsible behavior (child labor parallel)**
- **Credit trading** ● **Recreational values** ● **Kyoto “add-on”**
- **National taxes + international transfer (ultimate goal: international agreement / scheme)**
- **Focus on Micro, Small & Medium sized businesses (over 90% of all economic activity)**
- **Lack of domestic demand in developing countries**



The main 'leads'

- **Biodiversity offsets**
- **Certification / eco-labeling**
- **Bundling / building on the carbon market**
- **Prototype funds**
- **Cap-and-trade for biodiversity**
- **Open Marketplace**

Where does the IPES discussion go from here?



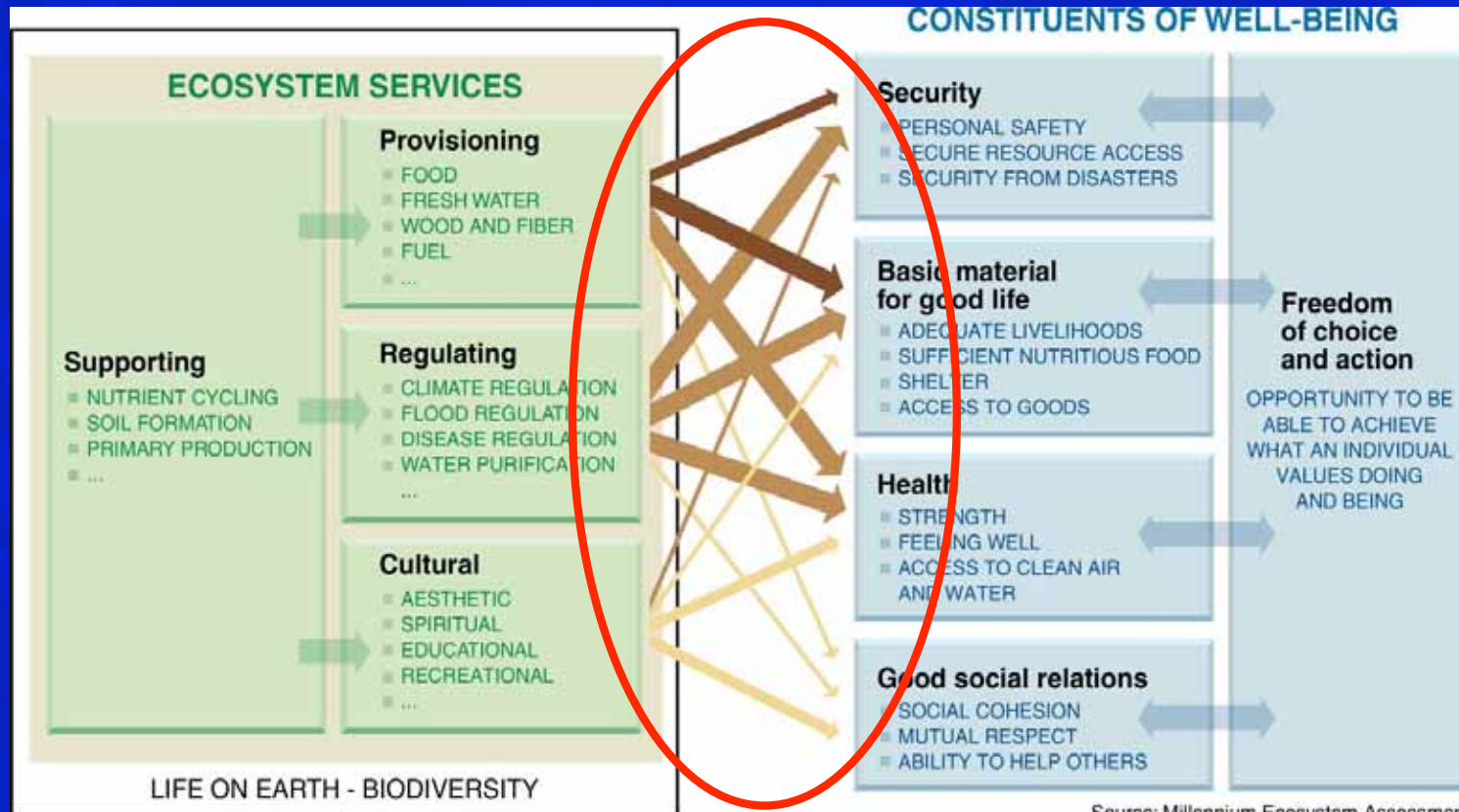
Back to the fundamentals...



- “What is ‘biodiversity’ / why conserve it?
indirect benefits, precautionary,
existence/ethics/quality of life”

CBD definition of Biodiversity: “ the variability among living organisms and the ecological complexes of which they are part, including the diversity within species, between species and of ecosystems”

The MA Framework



Source: Millennium Ecosystem Assessment

ARROW'S COLOR Potential for mediation by socioeconomic factors	ARROW'S WIDTH Intensity of linkages between ecosystem services and human well-being
Low	Weak
Medium	Medium
High	Strong

Conceptualizing ecosystem services



MA

- Provisioning
- Regulating
- Supporting
- Cultural

Costa Rica PSA

- Carbon
- Biodiversity
- Water
- Landscape Beauty

Heal *et al.*, 2002

- Production of goods
- Regeneration processes
- Stabilizing processes
- Life-fulfilling functions

Ecosystem Marketplace

- Carbon
- Biodiversity
- Water

Conceptualizing ecosystem services some more...



- **Spatially:** local, regional, global
- **Ecosystem type:** forest, reef, wetland, etc.
- **By value:**
 - **Use values:** direct , indirect
 - **Non-use values:** existence, option, bequest, insurance

Where Does Biodiversity fit in?



- **Everywhere:** Valuation focus on indirect and non-use values
- **Within a given ecosystem:** Valuation focus on both use and non-use values
- **At the aggregate level:** Infinite value

IPES DILEMMA

Ecosystem flows



- **Omni-directional**
 - Global (CO₂ sequestration, biodiversity)
 - Local (pollination, storm protection)
- **Directional** (water cycle)
- **In-site** (soil formation)
- **Recreational/cultural** (tourism?)

The main challenges for moving ahead with IPES



- **The scale issue**
- **Valuing / measuring biodiversity**
- **Gaining a stronger understanding of the inter-linkages between biodiversity and ecosystem services – supply side**
- **Increasing international demand for non-use values of biodiversity – demand side**

The World Heritage Convention model



- **Valuation / measurement:**
 - **Ecosystem Benefit Indicator** (Boyd & Waigner, 2003):
 - Characterization of ecosystem according to its biophysical attributes
 - Assemblage of data on ecosystem's social, economic, and bio-physical landscape
 - Identification of ecosystem services
 - Evaluation of service benefits

The World Heritage Convention model



- **Pricing:**

“for most of the values that humans attach to biodiversity and ecosystem services, the pricing approach is inadequate – if not misleading and obsolete – because it implies erroneously that complex decisions with important environmental impacts can be based on a single scale of values” (Gatto, M., 2000)

- **Auctions**

The World Heritage Convention model



- **Supply side:**
 - Habitat-based (as opposed to species-based)
 - Case-by-case basis – no need to extrapolate
 - Opportunity for bundling – including social / rural development issues could be encouraged

Integrating World Heritage Sites



- **Demand side: Build on existing willingness to pay**

Globally UNIQUE

Locally DIVERSE

Shortcomings



- **High transaction costs**
- **Lack of service delivery**
- **Lack of existing institutions**

The longer term objectives



- **Communicate and inform on the qualitative values of natural capital**
- **Start with companies who have direct impact on biodiversity (extractive industries)**
- **Move to a decentralized network of PES schemes**
- **Global to regional to local significance**
- **Increase willingness-to-pay through awareness raising**
- **Support the transition to an economy of stewardship**
- **And especially...**

...empower local communities



Questions?



Thank You

