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# Criteria for a conceptual framework for developing environmental statistics

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**November 9, 2010**



## Why we need a conceptual framework

- To date, no single conceptual framework has emerged to underpin environmental statistics
- As a result:
  - Collection of environmental data has been opportunistic, focussing where there has been policy demand
  - Existing data are not well integrated
  - Gaps exist with no agreed upon way to prioritize their filling



## Criteria for a good framework

- Aligned with the primary purpose of collecting env stats
- Makes the scope of env stats clear
- Defines clear dimensions for env stats
- Leads to consistent definitions, standards, etc.
- Is coherent with with other frameworks
- Can be used to identify gaps



## Existing frameworks - PSR

- Fails to provide unambiguous guidance
  - Is low pH in a lake an impact or a pressure?

Depends on one's perspective – A fisheries biologist would say pressure; an atmospheric scientist would say an impact
- PSR does not provide clear boundaries for statistics
  - Little help in identifying gaps
- Makes no attempt to link with other frameworks, notably economic statistics



## Existing frameworks – Natural capital and ecosystem services

- Really the same framework, with natural capital being the fundamental concept
- Strong conceptual basis rooted in a long literature
- Clear links to economic framework
- Defines clear boundaries and therefore helps identify gaps
- Can be adapted to national situations
- Consistent with emerging scientific and economic consensus: Stiglitz, MEA, TEEB,



# Proposal

- Suggestion is to build upon the emerging consensus around natural capital and ecosystem goods and services
  - The Economics of Ecosystems and Biodiversity
  - Millennium Ecosystem Assessment
  - Stiglitz
- PSR can be retained for reporting purposes if it is found useful



## Linkage to the SEEA

- To be practically useful, the *conceptual* framework must be complemented by a *statistical* framework
  - The former tells us *what* to measure and *why*; the latter tells us *how* to measure
- The existing UN System of Integrated Environmental and Economic Accounting (SEEA) is an excellent starting point for the needed *statistical* framework for environmental statistics



## Final thoughts

- We are faced with a unique opportunity today
  - Greatly increased need for environmental statistics combined with a deepened conceptual understanding of the link between the environment and human well-being
- We should seize this opportunity and quickly agree upon a conceptual framework
- Then NSOs and their partners must get on with the important business of improving environmental statistics