

EEA comments on the discussion paper UNCEEA/5/9

“Integrating the Economic and the Ecosystem Approaches
to the Environment in the Revised SEEA”

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The EEA supports the overall approach

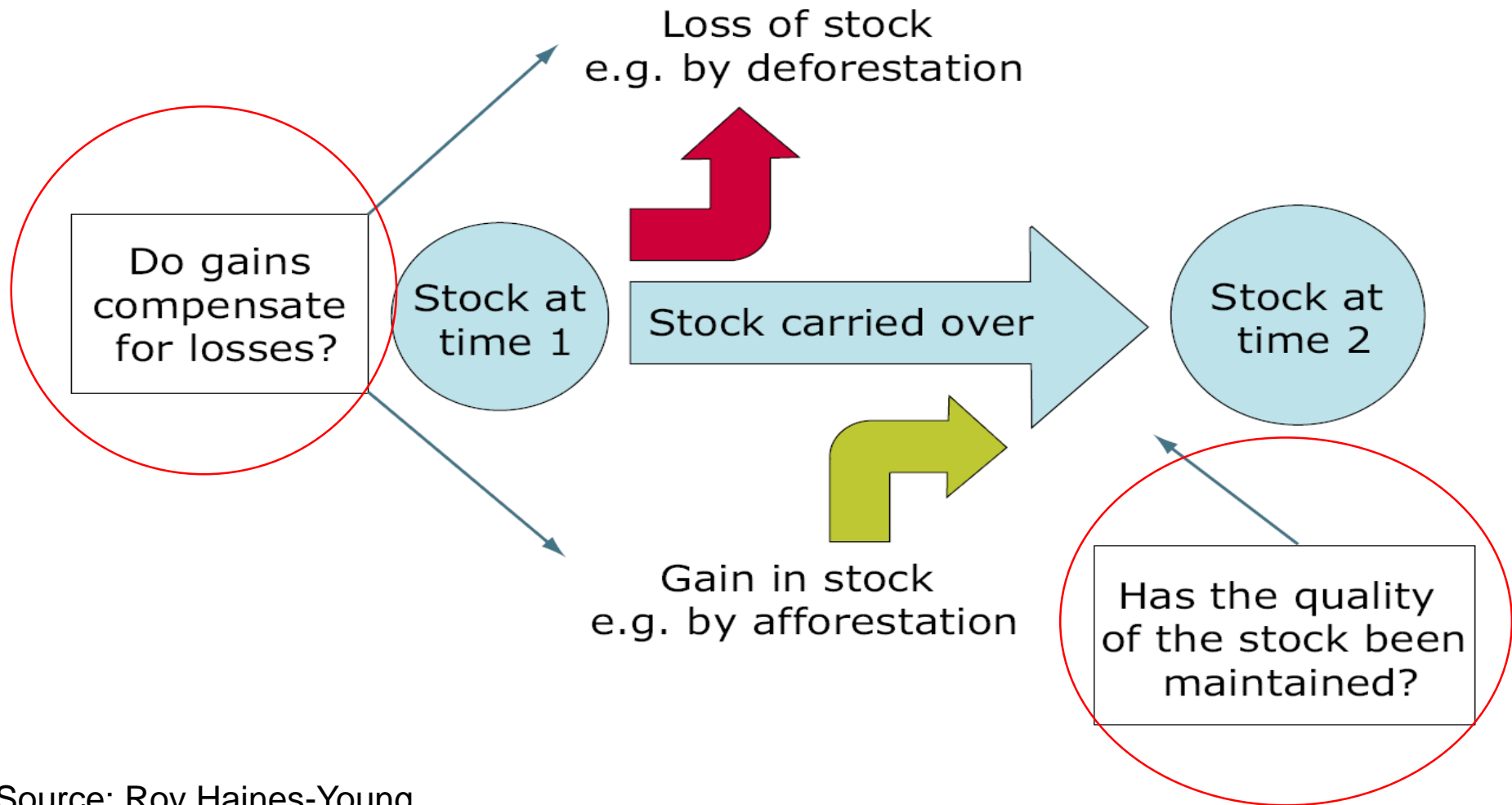
- Proposal in line with EEA's orientation, responsibility within ESEA, position taken regarding Beyond GDP and the Stiglitz report...
- In line with the discussions of the Joint Seminar EEA/Management Board and Eurostat/DIMESA, Luxembourg, Nov. 24, 2009
- Ecosystem impacts as well as feedbacks at the economic and social well-being are still the missing link in the SEEA revision

The ecosystem issue

- Ecosystems are part of the current systemic crisis: short term benefits at the expenses of long term investment, un-accounted costs, un-assessed or concealed risks, forwarding of negative impacts to others – to present or/and future generations (incomplete prices of commodities, ecological debts)...
- The economy recognizes ecosystems only as a collection of (economic) resources, as free externalities and sometimes as unwanted costs (e.g. the Deepwater platform).
- Risks of misleading environmental-economic decisions when resources/services are taken one by one: e.g. from REDD to REDD+ and even ++ (to avoid “biological leakage”); e.g. new debates on biofuels in Europe (possible threats to biodiversity, soil conservation and food security).



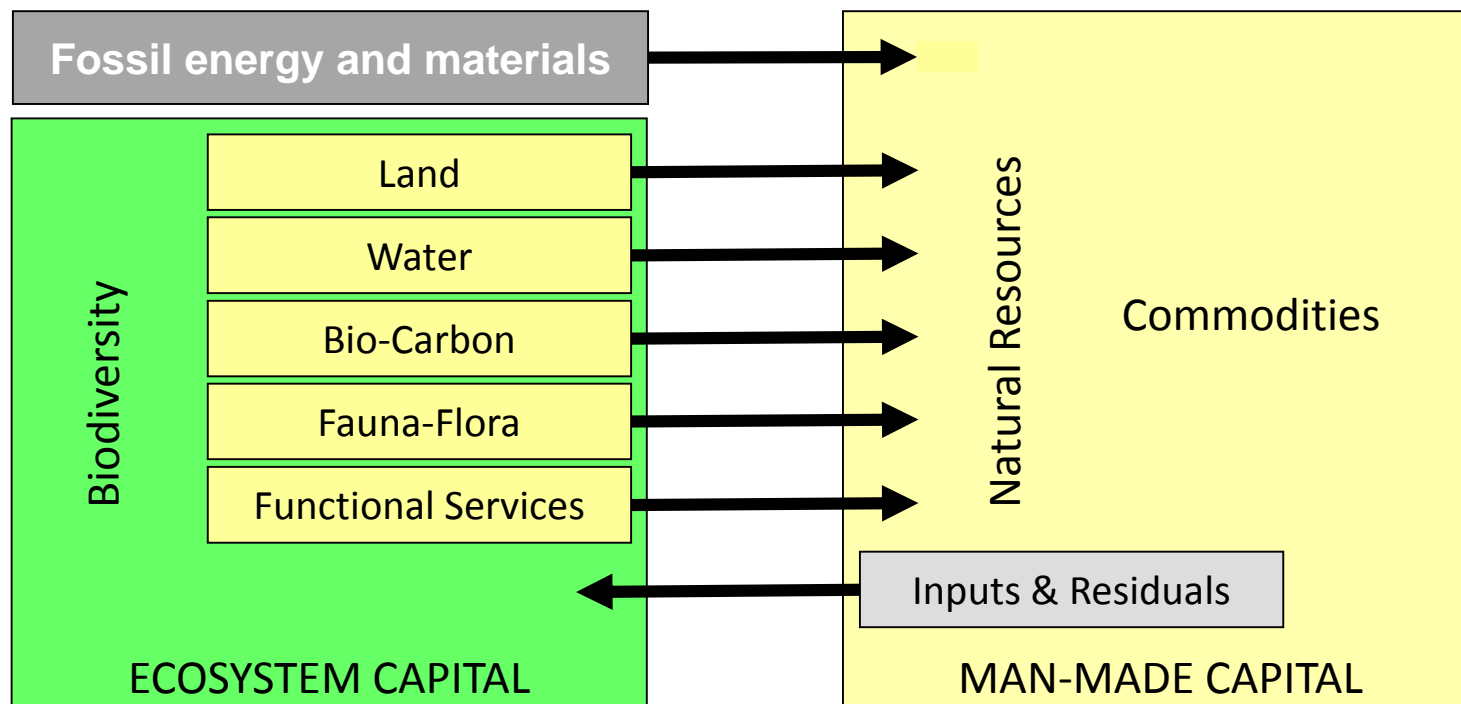
The basic questions



Source: Roy Haines-Young



Policies should embrace altogether resource use and capital maintenance: man-made as well as ecosystem



Agriculture policy
Regional development
Transport/ urban policies
Energy policy
Environmental policies

Ecosystem Asset Account

Bio-C balance

Opening stocks by ecosystem types

- **Formation of bio-C (Net Ecosystem Production)**

- **Withdrawals by activities**
- **Net transfers between ecosystems**
- **Returns from activities**
- **Imports/Exports**
- **Storage in the user system**
- **Consumption/combustion of bio-C**

- **Changes due to natural & multiple causes**

- **Change in situ bio-C storage**

Final stocks by ecosystem types

Ecosystem C-Productivity/Health Counts

- **NPP trends**
- **NDVI perturbation by activities**
- **NDVI perturbation by hazards**
- **NDVI perturbation by climate change**

Linkage table

- **Landscape ecological potential**
- **Water availability (quantity*quality)**
- **Biodiversity**

Accounts & indexes : e.g. carbon/biomass ecosystem accounts

Sector Accounts

(MFA, Supply & Use, IOT, Hybrid, Expenditures...)

- **Withdrawal of bio-C**
- **Input-Output between sectors**
- **Returns of bio-C**
- **Imports/Exports**
- **Storage in the user system**
- **Consumption/combustion of bio-C**

Consumption of C / Emissions of CO₂ CH₄

- **Consumption/combustion of bio-C**
- **Combustion of fossil fuel**
- **CO₂/CH₄ emissions**

Carbon Offset Expenditures

- **C taxes and subsidies**
- **Purchase of C permits**

Virtual or Embedded C in Import-Export

- **Virtual or Embedded C by products**



Fast track implementation of ecosystem accounts in Europe by 2011/12

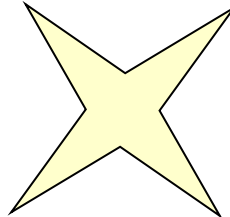
- Dual accounts of Ecosystems (EEA) and Economy (Eurostat)
- Physical accounts firstly – although exploration of sustainable benefits accounting
- 4 priority areas: Carbon [C], Land [L], Water [W] & Biodiversity [B] + embedded flows in international trade
- Deadline 2011/12 with intermediate delivery by Sept. 2010 (Post-Copenhagen, Biodiversity Year, CBD COP10), then Rio+20

Ecosystems	Economy
PHYSICAL BALANCES	
Stock	
Natural production	USE OF ECOSYSTEM RESOURCE
Extraction/ harvesting	Extraction/ harvesting
Returns/ Formation (sectors)	Returns/ Formation
Final Consumption (sectors)	Final Consumption
Natural consumption	USE OF FOSSIL RESOURCE
Storage/Accumulation	...
Stock	EMISSIONS, RESIDUALS
QUALITY/HEALTH INDICES	
Vigour	From resource
Stability, integrity	From fossil resource
Resilience	EXPENDITURES
LINKAGE TABLES	
To land accounts	IMPORTS-EXPORTS
To water accounts	Actual
To biodiversity indexes	Virtual (embedded)

C

Ecosystems	Economy
PHYSICAL BALANCES	
Stock	
Natural production	USE OF ECOSYSTEM RESOURCE
Extraction/ harvesting	Extraction/ harvesting
Returns/ Formation (sectors)	Returns/ Formation
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Natural consumption	USE OF FOSSIL RESOURCE
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To water accounts	Actual
To biodiversity indexes	Virtual (embedded)

W



Ecosystems	Economy
PHYSICAL BALANCES	
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Natural production	USE OF ECOSYSTEM RESOURCE
Extraction/ harvesting	Extraction/ harvesting
Returns/ Formation (sectors)	Returns/ Formation
Final Consumption (sectors)	Final Consumption
Natural consumption	USE OF FOSSIL RESOURCE
Storage/Accumulation	...
Stock	EMISSIONS, RESIDUALS
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Vigour	From resource
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L

Ecosystems	Economy
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B



Make it happen

- 50% of the SEEA is not really the SEEA... there is a need to move...
- Coarse holistic ecosystem accounts are acceptable to start, relevance matters more than accuracy:
 - Key selected resources/ services: balanced quantitative accounts
 - Ecosystem health/state accounts based on weighted indexes, continuous ex post recording of degradation
- Make full use of existing information systems
 - Statistics... (agriculture, forestry, fishery, population, national accounts...)
 - Earth observation systems, satellite and in situ monitoring (GEOSS)
- Start top-down:
 - Priority to macro assessments, physical and monetary accounts
 - Extension of the macro framework on the basis of experiences in voluntary countries.
- Make distinction between:
 - Components, resources, which are additive one by one and can be addressed bottom up → possible addition of individual statistics, monitoring data...
 - Systems which are only partly additive, partly non-additive (combinations, interactions...), and in addition which are very complex... → diagnosis based on observable symptoms, top down approach as the starting point, enhanced with sampling.



Issues for implementing ecosystem accounts

- Make a clear distinction between:
 - An interim accounting standard based on existing (although imperfect) data and knowledge and
 - Longer term research on ecological processes, ecological economics and data improvement
- Mobilize data and knowledge holders in international organisations, government agencies, NGOs, science...
- Possibility to agree on a very small set of priorities
- Manage the scale issues, interactions between global, national and local approaches
- Define clear articulations within SEEA and between SEEA (incl. ecosystems) and SNA, IPCC, future IPBES, MA, TEEB, EF...

