

# Virtual Expert Forum on SEEA Experimental Ecosystem Accounting 2020

## Session 4: Thematic accounts and indicators

9 & 10 November 2020

### Consolidated key takeaway messages from breakout discussions on thematic accounts

#### Group 1: Accounting for biodiversity

- Recognition of the recent approval of IUCN Motion 070 on accounting for biodiversity at genetic, species and ecosystem levels.
- Discussion about whether accounting for genetic and species diversity belongs in a thematic account, or whether a whole new set of accounts for each should be constructed that parallels the structure for ecosystem accounts
- Two potential pathways to account for biodiversity in a way that closely adheres to CBD definition include 1) spatial aggregation that considers compositional variation at different scales (separate discussion paper on the topic to be provided soon) 2) aggregating species accounts (species accounts to include within species variation - genetic, functional, phenotypic etc)
- But recognizing that species accounts typically focus on a small subset of high priority species, and other measures/indicators are needed for biodiversity more broadly
- On indicators, recognition that SEEA is and should rely on existing external frameworks and methodologies (e.g., post-2020, SDG, Living Planet, GEO BON, IUCN Red List); biodiversity thematic account can draw not just on the framework of indicators but on the biodiversity values that are already being assessed in many countries
- SEEA adds value to existing biodiversity assessment on the policy side by linking the foundation of natural capital (biodiversity in particular) and its status/condition/quality with social and economic development
- Biodiversity management is not focused only on numbers but on the processes that underpins it, and so account should consider processes and indicators for those too
- Spatial scale of analysis, complementarity and context affect priorities, e.g. species may be at risk locally, but not globally, while others which are under threat locally maybe unique and hence of global importance. Examples of disaggregating species-level Red List data across ecosystems to link species accounts to ecosystem accounts
- Indicators needed across scales from genes to species to ecosystems to regions to global – tie them to policy – headline indicators are not quite there yet. Can improve on the intellectual principles and foundation underlying headline indicators and what we mean, with clear guidance. Indicators need to be owned by national governments, so some flexibility needed.
- Even in data rich countries, hard to find indicators updated annually, so need more fieldwork/assessment, but also can use modeling approaches, backcasting of IUCN Red List, etc.

#### Group 2: Accounting for climate change

- There are opportunities for integrating the IPCC Guidelines with Ecosystem Accounting. *The IPCC guidelines have as objective to measure anthropogenic emissions (by sector), separating them from emissions from environmental change. The Managed Land Proxy (MLP) was proposed in*

*2010 (defined by land area rather than by the driver of change). The MLP is not perfect because the emissions from managed lands include emissions due to environmental change, and countries define MLP as it suits them, not is it clear how many countries are using the MLP.*

- The world is broader than carbon, ecosystem accounting has a lot to offer, such as:
  - recording carbon in an integrated manner, linked to the condition of ecosystems as well as biodiversity (this is also reflected in the 2019 UNFCCC CoP 25 decision)
  - while fungibility is important (to treat all carbon emissions as equal, regardless where they are coming from – this is the main principle of the climate agreements), distinguishing between geocarbon and biocarbon (as in SEEA carbon stock accounts) is very relevant. This allows for instance to assess the permanence and/or saturation of carbon pools, and or ‘weight’ carbon stored with the condition of ecosystems etc.
  - the choice to account for all land regardless of it being managed or unmanaged (as in SEEA), makes things easier/simple
- There exist differences between global carbon modelling community and GHG emission inventories
- The current reporting requirements for countries on GHG emissions are unlikely to change in the short-term (although it was remarked that IPCC guidelines allow flexibility of country reporting within established principles), but information and indicators provided by the accounts can clearly complement existing reporting schemes. This is also the approach taken by the UNECE Task Force on indicators, which calls these dual indicators.
- SEEA provides an important foundation for measuring main climate change-related phenomena based on a wide number of accounts, with as limitations that some parts (such as health) are not part of SEEA, some policy-relevant indicators are not SEEA-based, and some open methodological questions.
- The scope of chapter 13.4 (SEEA-EA) could be defined clearer and linked with IPCC and/or CES Recommendations. In particular, the different accounts / indicators from SEEA EA supporting climate change policies could be linked to the DPSIR cycle.
- The country presentations highlighted the potential of the ecosystem accounts to inform the NDC (nationally determined contributions) process
- The country testing revealed that carbon retention appears to be a realistic and practical method of valuation that gives the correct policy signals about the benefit of carbon stored in ecosystems. At the same time, it was also mentioned:
  - it is important to also account for sequestration
  - make sure there is no double counting
  - to choose clear boundaries (e.g. including peatland reservoirs (that can be very thick and largely not at risk of release) may make the retention approach less relevant/practical -> it was suggested that in principle these reservoirs are “in scope’ but that countries could choose deviate with reason
  - the dependency of valuation outcomes on choice of rates of return and social cost of carbon (carbon prices). The case studies showed the importance of performing some sort of sensitivity analysis.

### Group 3: Accounting for oceans

1. Readers of section 13.5 need to be made very aware that section 13.5 is a very high level summary of the power, relevance and importance of ocean accounts in the context of SEEA-

- EA. Ocean accounts actually transcend SEEA-EA, SEEA-CF and SNA and many of their uses are drawn from the CF and SNA. Readers should be left in no doubt that the Oceans chapter in SEEA-EA is just the ecosystem component, and a very high level overview of that component.
2. Section 13.5 could benefit from some more examples of actual indicators, including for non-SEEA-EA aspects of the discussion e.g. indicators for ocean economy and indicators for ocean governance accounts. Many of the audience questions were reacting to what was not in the current draft e.g. what about employment, jobs, etc.
  3. Is there somewhere in SEEA-EA, not necessarily 13.5, which positions the relationship between the biosphere, economy and society. Does there need to be? E.g. economy within biosphere
  4. Indicators and policy uses can be scale-dependent e.g. what may be relevant for a national level may not be relevant for a protected area or coastal zone
  5. Boundary issues need further attention e.g. how far does the ocean's services, benefits and residuals extend onto land?

#### Group 4: Accounting for urban areas

1. What is the role of the thematic account for national (or regional/local) policy and how to achieve that?
  - There is a tension between meeting the needs of municipal/local government use of ecosystem accounts vs national uses. This is the case with ecosystem accounts more generally, but there are issues specific to the urban thematic accounts.
    - Policy issues will likely be different - eg managing human health, urban diversity, climate change - and may be different across regions.
    - Choice of aggregation unit (eg landscape vs individual asset vs some possible hybrid?) will be important for these different policy uses, and have other implications (eg data requirements).
    - Some uses of urban accounts require extensions beyond the concept of exchange values (eg cost of human health).
  - Examples of purposes:
    - environmental net gain in cities (UK)
    - asset value awareness raising; the urban 2,5% of ecosystems have 25% of asset value in the UK
    - land use planning scenarios (Shenzhen)
    - Engineering effect assessment (sponge city, Shenzhen)
    - Eco-compensation between provinces (ecological fiscal transfers, Shenzhen)
2. What are the most important aggregates and indicators that can be derived from the thematic account?
  - Indicators for SDGs 11,12,14,15
  - Urban ecosystem asset values - identifying infrastructure values and relevance for justifying budget allocation for management (e.g. parks, street trees)
  - Land asset values, including vacant land
  - Beneficiary specific ecosystem service values (per person, per building, per property)
  - Map based reporting to highlight spatial distribution of ES – reporting on equity

3. How can we engage the relevant national (or regional/local) and international communities that have a stake in the compilation and the use of the thematic account?
  - Generally: Identify municipal policy-planning-regulating-permitting-... cycle and design urban accounting outputs specifically adapted to the different steps in the cycle.
  - UK: don't agonise about standardisation. Cities will adapt thematic accounts to their needs. Recognise that accounting isn't «the only game in town» for planning. Mapping & assessment without accounting
  - Shenzhen: tool for EGP Accounting Online. Data portal with 14 standardised ES modeling approaches. Cities free to adopt the suite of models most important for them
  
4. In the light of our discussion what changes might be made to the draft text in the SEEA EA?
  - There is a tension between meeting the needs of municipal/local government use of ecosystem accounts vs national uses. This is the case with ecosystem accounts more generally, but there are issues specific to the urban thematic accounts.
    - Policy issues will likely be different - eg managing human health, urban diversity, climate change - and may be different across regions.
    - Choice of aggregation unit (eg landscape vs individual asset vs some possible hybrid?) will be important for these different policy uses, and have other implications (eg data requirements).
    - Some uses of urban accounts require extensions beyond the concept of exchange values (eg cost of human health).
  - Urban thematic accounts tend to have a more blended view of extent and condition when compared to ecosystem accounts more broadly. This could be acknowledged in the chapter.
    - The issue of condition in urban thematic accounts is important. Someone in the discussions said “condition for what purpose”
  - Good ecological condition.
    - What is the urban ecosystem reference condition? This is a policy question. Condition indicators can be defined to track whether conditions are improving or deteriorating in relation to a target benefit, without the need to define a reference level.
    - Is it necessary to choose only condition indicators that predict ecosystem services, or can condition indicators have stand-alone decision support relevance?
  - Ecosystem extent: landscape of asset approach?
    - Clarify why there cannot be an 'elementary spatial unit' for ecosystem service supply quantification and valuation. Some models use landscape classes (e.g. hedonic pricing), others use assets (iTree Eco valuation of regulating services)
  - Basic spatial unit. Shenzhen case showed that the valuation of Ecosystem services is sensitive to the resolution used as input to models. Flexibility in choosing BSU.