



statistics for informed

decision making

Session 10: Sequence of the accounts; aggregation and integration

Expert Group meeting on Ecosystem
Accounts,
Melbourne, 18 May 2012

Overview

- The sequence of SNA accounts
 - relevance to ecosystem accounting?
- Combined (i.e. monetary and physical) presentations related to ecosystems?
- A separate sector for ecosystems?

The sequence of SNA accounts

- SNA describes a sequence of economic accounts
- Stocks and flows -- production; income and expenditure; accumulation... balance sheet
- SEEA Central Framework uses this sequence – adapted for certain environment-related items
 - adopt something similar for ecosystems-related matters?

Combined presentations related to ecosystems

- is it useful to provide a discussion of principles of combined presentations?
 - provide examples of combined presentations?

‘Two options for recording ecosystem services in sequence of accounts’ (Edens, de Haan 2012)

- Option 1: Ecosystems as an asset and as a separate sector
- Option 2: Ecosystems as an asset
- A number of questions are raised in assessing these options...

‘Two options for recording ecosystem services in sequence of accounts’ (Edens, de Haan 2012), *cont’d...*

- Ecosystems as a separate sector (**option1**):
 - ‘ecosystem products’ are a resource of ‘ecosystems’ sector (and a use by producers and consumers)
 - estimates of output, operating surplus, saving etc. are generated in respect of the ecosystems sector
 - ‘degradation’ is attributed to ecosystems sector as ‘owner’ of the asset (though the ecosystem is degraded by a different sector)

‘Two options for recording ecosystem services in sequence of accounts’ (Edens, de Haan 2012) *cont’d...*

- Ecosystems as an asset (**option 2**):
 - The ecosystem is ‘owned’ by economic units – output of ecosystem services, and any degradation costs, are attributed to these units

‘Two options for recording ecosystem services in sequence of accounts’ (Edens, de Haan 2012) *cont’d...*

- Issues:
 - is it useful to view ecosystems as akin to group of institutional units?
 - is it logical to attribute production of ecosystem services to agriculture, government etc.?
 - such producing units may be unaware of the production of these services
 - to whom should we charge the cost of ecosystem degradation?

Is it useful to view ecosystems as akin to group of institutional units?

- Institutional sectors are identified so as to support a focus on the purpose, objectives and behaviours of these units
- Typically, institutional units are 'transactors' e.g. corporations, government agencies etc. - making decisions and undertaking actions affecting the economy (and environment)
- i.e. they are not passive

Is it useful to view Ecosystems as akin to group of institutional units?

Continued...

- ecosystems may be dynamic and responsive, and might conceivably be viewed as akin to an institutional sector?
- but is this a useful thing?

Is it logical to attribute production of ecosystem services to agriculture, government etc.?

- such producing units may be unaware of their production of ecosystem services
- but allocating value of ecosystem services (and degradation) to these units provides an ongoing basis for policymakers to assess the full potential value (and cost) of such units to the community

To whom should we charge the cost of ecosystem degradation?

- Charging degradation to the ‘ecosystem’ itself (option 1) fails to assign human responsibility for damage
 - e.g. if a farmer degrades an ecosystem, shouldn’t degradation be recorded against the operating surplus of the farmer?
- SEEA Central Framework assigns natural resource depletion to the responsible institutional unit
- SNA likewise records consumption of fixed capital against the producing unit

Questions for discussion...

- Is the sequence of economic accounts useful for ecosystem accounting?
- include discussion of combined presentations of monetary and physical data related to ecosystems?
- separate sector for “ecosystems” – i.e. option 1 or option 2?
 - is it useful to view ecosystems as akin to group of institutional units?
 - is it logical to attribute production of ecosystem services to agriculture, government etc.?
 - who do we charge with the costs of degradation?