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Accounting

# ***Session #1: Summary of valuation concepts and terms***

SEEA EEA Revision workshop: Valuation and accounting treatment  
16-18 March 2020



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# SEEA EEA Revision process



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# State of play in terms of process

- Global consultation on Ch 3, 4 and 5 about to commence
- 5 discussion papers on valuation and accounting treatments completed and feedback received through expert review process
- 2 discussion papers on ecosystem services currently circulating for expert review – comments due back end March
- Technical group on biodiversity established

# Key next steps

- Valuation workshop
- Draft valuation chapters end March for discussion among WG#5 and Technical Committee
- Draft ecosystem services chapters end April for discussion among WG#3 and WG#4 and Technical Committee
- Commence global consultation on valuation chapters end April
- Commence global consultation on ecosystem services chapters end May
- Expert forum early July
- Revised draft early October



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# Key elements of the ecosystem accounting model



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# Key elements underpinning valuation

- **Ecosystem assets (EA)** spatially delineated across an **ecosystem accounting area (EAA)** e.g. country
- Account for changing extent and condition of EA, usually grouped by **ecosystem type (ET)** e.g. forests
- EA supply **ecosystem services** which contribute to benefits
  - > Provisioning services; Regulating services; Cultural services
- Some contribute to current economic production (**SNA benefits**)
- Some contribute to activities outside current production boundary (**non-SNA benefits**)
- Ecosystem services are **transacted/exchanged** between EA and **users**, with primary focus on economic units, i.e. final ecosystem services



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# Valuation concepts wrt ecosystem services



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# Establishing a common basis of concepts and terms

- Exchange values
  - > In accounting equal to price x quantity : value does **not** equal price (unless quantity equals 1)
- Welfare values
  - > In environmental economics focus on total surplus or change in total surplus where total surplus equals consumer plus producer surplus
- Link between exchange and welfare values in use of a common price to estimate exchange values and total surplus
- Exchange values exclude consumer surplus; welfare values exclude costs
- Key issue around measuring change in welfare and approximations through (i) change in total surplus and (ii) decomposition of change in exchange values between price and quantity - volume indexes



# Linking to non-market matters

- Exchanges of ecosystem services (supply-use pair) are non-market transactions
- Some are closer to market transactions than others
- For accounting, aiming for an exchange value (price x quantity)
- In theory, price for accounting will equal the price used to estimate total surplus
- Further, the relevant demand and supply curves for the target ecosystem service (i.e. not the benefit) will be the same
- When all price and quantity combinations are plausible, including when  $p=0$  and  $q=0$  – “near market” – estimating total surplus and exchange values possible
- When combinations are not plausible – “far market” - estimating values much more problematic

# Questions

- 4.1 Does this short overview and associated materials on the relationship between welfare and exchange values suggest that we have a common understanding of valuation concepts and terms?
- 4.2 What changes, refinements or additional points should be incorporated?
- 4.3 What are the implications of the zero problem for the measurement of exchange values?



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# Framing of values

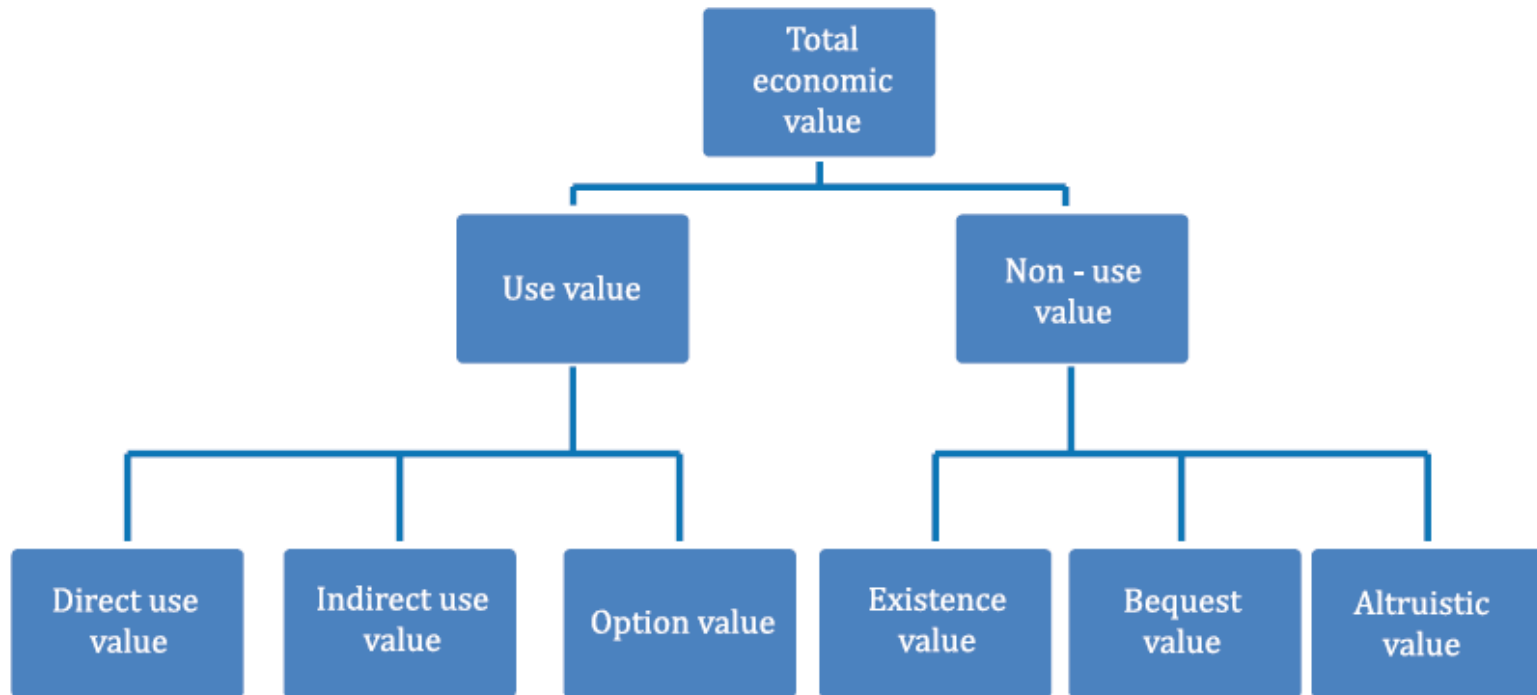


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# Focus for SEEA EEA

- Accept that both monetary and non-monetary approaches to value are relevant in the environmental context
- For SEEA EEA monetary accounts focus on economic value expressed in monetary terms
- A framing to give context for a full range of economic values is Total Economic Value (TEV) admitting it seems to have mixed reviews/status
- Generally seems that discussion of use values is in hand – putting aside choices of techniques to measure
- Far less clarity on non-use values including existence and bequest values

# Possible TEV model (ISO 14008)



**Figure 1 — Elements of the total economic value**

# Questions

- 5.1 What is the appropriate framing of non-use values in an accounting context and to what extent might exchange values be estimated?
- 5.2 Which variant of the TEV do we use?



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**Thank you**



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