

Revision issues for forest accounts

Classifications

Valuation of forest assets

Non-timber benefits of forests

Jukka Muukkonen



Classifications used in forest accounts

- Environmental assets within the 1993 SNA
- SEEA asset classification.
- Wooded land by cover type
- Forested land by timber availability (availability for wood supply)
- Forested land according to authenticity or naturalness
- Forested land according to predominant tree types
- Forested land by ecofloristic zones
- Alternative hierarchy for forested land:
 Forested land by timber availability, naturalness and tree types
- IUCN classification on protection status of forested land



Alternative hierarchy of forested land

FORESTED LAND	SNA93		SEEA2003
Forests available for wood supply			
Natural forests Coniferous Broad-leaved Bamboo, palms of Mixed forests	AN.213	Non-cultivated biological resources (SNA rev: sub-categ. of natural resources)	EA.14 Biological resources (141, 142,144) EA.23 Wooded land and associated surface water EA.31 Terrestrial ecosystems
Semi-natural forests Coniferous Broad-leaved Bamboo, palms of Mixed forests	AN.213 AN.1221 etc.	Non-cultivated biological resources Work in progress on cultivated assets (Growth of timber)	EA.14 Biological resources (141, 142,144) EA.23 Wooded land and associated surface water EA.31 Terrestrial ecosystems
Plantations Coniferous Broad-leaved Bamboo, palms of Mixed forests	AN.11142 etc.	Vineyards, orchards and other plantations (SNA rev:yielding repeat products)	EA.14 Biological resources (141, 142,144) EA.23 Wooded land and associated surface water EA.31 Terrestrial ecosystems
Forests not available for wood supply			
Strictly protected Coniferous Broad-leaved Bamboo, palms of Mixed forests	AN.2113 AN.2119 etc.	Recreational land and assoc.surface water Other land and associated surface water	EA.142 Crop and plant resources, other than timber EA.144 Animal resources, other than aquatic EA.23 Wooded land and associated surface water EA.31 Terrestrial ecosystems
Under economic restr Coniferous Broad-leaved	<mark>ict.</mark> AN.213	Non-cultivated biological resources	EA.142 Crop and plant resources, other than timber EA.144 Animal resources, other than aquatic EA.31 Terrestrial ecosystems



Classifications

- Is the alternative hierarchy for forested land by timber availability, naturalness and tree types applicable, theoretically sound and practical for standard of forest asset accounts?
- What would be adequate level of sub-categories presented in classifications of forested land and in balance sheets for forests?
- Should some classifications (e.g. forested land by ecofloristic zones and by protection status) be treated as 'supplementary' classifications in standard of forest accounts?



Classifications

- How should semi-natural managed forests be recorded in proposed asset classification of the SNA revision?
- In the present SNA, growth of timber in semi-natural managed forests can be recorded as 'Work in progress on cultivated assets'.

At the same time these forest assets can be recorded as 'Non-cultivated biological resources' under the category 'Non-produced assets'.



Monetary accounts for forest assets

- Valuation of standing timber and some non-timber products seems to be areas with best possibilities in achieving international standard. Non-timber products consist mainly on food, medicines, fodder/forage for animal breeding, industrial extracts and forest animals as agricultural products.
- Valuation methods for timber presented in the SEEA 2003 offer a good starting point for the revision. Stumpage value method, consumption value method, simple net present value method and net present value method allowing for management costs are acceptable for the SNA, and they are also tested and used in several countries.
- Market prices or estimates based on market prices can be used for non-timber products.
- Valuation of forested land is at present more complicated. Even when market prices are available, they are not representative at national or regional level



Non-timber benefits provided by forests

- The SEEA 2003 presents some supplementary topics and tables whose compilation may be useful when wooded land is being studied in depth.
- Of these topics carbon binding, biodiversity and non-timber services of forests might be the most important ones to be included into the revision of the SEEA forest accounts.
- Both physical and monetary accounts are possible for carbon binding.
- In biodiversity and non-timber services physical accounting is a more practical approach than monetary, because valuation methods fully compatible with the SNA are not as developed as e.g. in timber accounts. Statistics on value of biodiversity and non-timber services are rarely available.
- For applications and policy uses of the SEEA, it would be important to develop tables and other presentation forms in which monetary and physical information on forests can be presented together in a condensed form.