Global Workshop on Forest Accounting

Forest accounts implementation

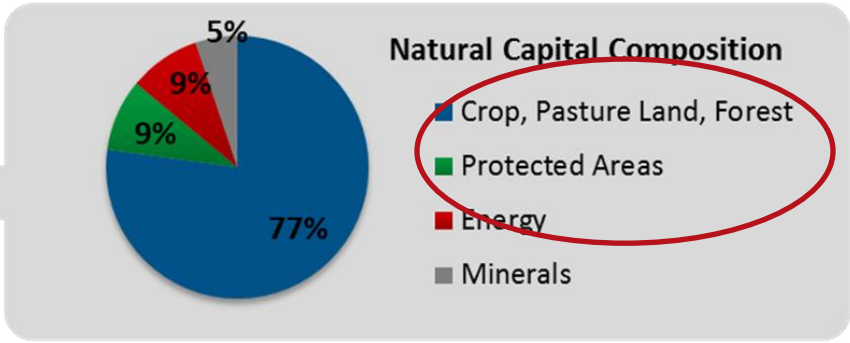
Washington DC May 11-13 2014

Forests are an important component of wealth

- The source of income and wellbeing is wealth, broadly defined to include: manufactured, natural and intangible capital.
- Change in GDP tells us if growth is occurring, **changes in wealth tell us if growth is sustainable**
- **Economic development** is a process of **building wealth** and managing this portfolio of assets

Wealth of Low Income Countries

2008 US$	*Per Capita*
Total Wealth	7,670
Produced Capital	1,117
Natural Capital	2,403
Intangible Capital	4,290
Net Foreign Assets	-141



Source: Authors' calculations based on World Bank data.

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Beyond GDP: Forests in the national accounts

Key information about forest assets is missing or invisible in the System of National Accounts (SNA)

STOCKS

- Depletion of natural forests is not captured

FLOWS

- Many non-market services are attributed to other sectors (tourism)
- … or some are not represented (carbon storage)

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What are the general uses of forest accounting?

Scorekeeping

Better indicators for **monitoring sustainable development:** Wealth and Adjusted Net Savings

Management

Better tools for **managing natural capital to promote growth and poverty reduction**

- Weighing tradeoffs of land use
- Prioritizing investments in forest resources management, protected areas

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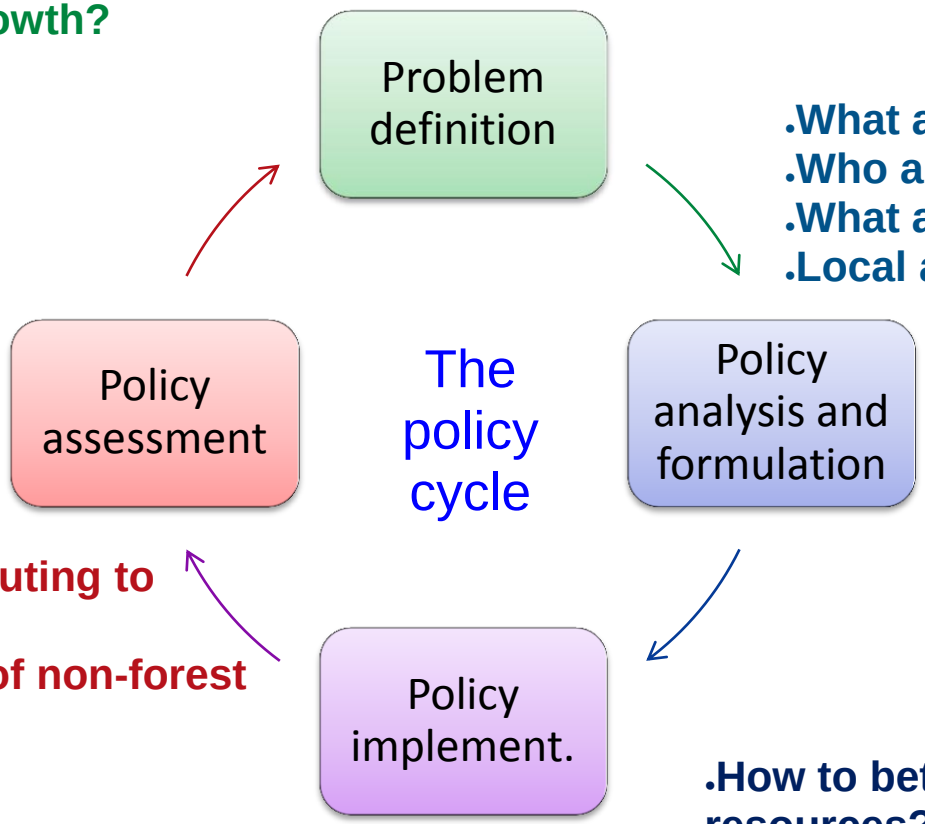
What is the policy relevance?

.What is the real contribution of forests to the economy?
.What are the linkages between forest and other sectors?
.Is economic growth causing degradation of the resource and could limit future growth?



.What are the tradeoffs?
.Who are the stakeholders?
.What are the priorities?
.Local aspects to be considered?

.Is the policy contributing to sustainability?
.What is the impact of non-forest policies?

.How to better allocate financial resources?
.What is the distribution of benefits?

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How to do forest accounts?

The revised SEEA consists of three parts: the *Central Framework*, which was adopted by the UN Statistical Commission as the first international standard for environmental-economic accounting; *Experimental Ecosystem Accounting* and *Applications and Extensions* of the SEEA. Subsystems of the SEEA framework elaborate on specific resources or sectors, including: Energy, Water, Fisheries, Land and Ecosystems, and Agriculture. These 'sub-systems' are fully consistent with the over-arching SEEA, but provide further details on specific topics and try to build bridges between the accounting community and the community of experts in each specific subject area.

ons Statistics Division

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London Group
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with the SNA in order to facilitate the integration of environmental and economic statistics.

The SEEA is a system for organizing statistical data for the derivation of coherent indicators and descriptive statistics to monitor the interactions between the economy and the environment and the state of the environment to better inform decision-making. The SEEA does not propose any single headline indicator. Rather it is a multi-purpose system that generates a wide range of statistics and indicators with many different potential analytical applications. It is a flexible system in that its implementation can be adapted to countries' priorities and policy needs while at the same time providing a common framework and common concepts, terms and definitions. The SEEA brochure provides additional information on what environmental accounting has to offer.

A multi-year process of revision to the System of Environmental-Economic Accounting was initiated by the United Nations Statistical Commission. The revised SEEA consists of three parts: the *Central Framework*, which was adopted by the UN Statistical Commission as the first international standard for environmental-economic accounting; *Experimental Ecosystem Accounting* and *Applications and*

evision
n on the revision of SEEA

Energy
Information on Energy statistics and accounts

Water
Information on Water statistics and accounts

Land and Ecosystems
Information on land and ecosystems

Who does forest accounting?

Countries	Most common `Flow' accounts	Most common `stock' accounts
27 EU countries, Australia, Canada, New Zealand, Norway	•Energy •Water •Air and water pollution	•Minerals & energy resources, •Forest timber
Colombia, Korea, Mexico, South Africa	•Energy •Water •Pollution	•Minerals and energy •Forest timber
Countries initiating environmental accounting, or renewing earlier pilot programs: Botswana, Brazil, Costa Rica, Guatemala, Kenya, Madagascar, Mauritius, the Philippines, Qatar, Vietnam		

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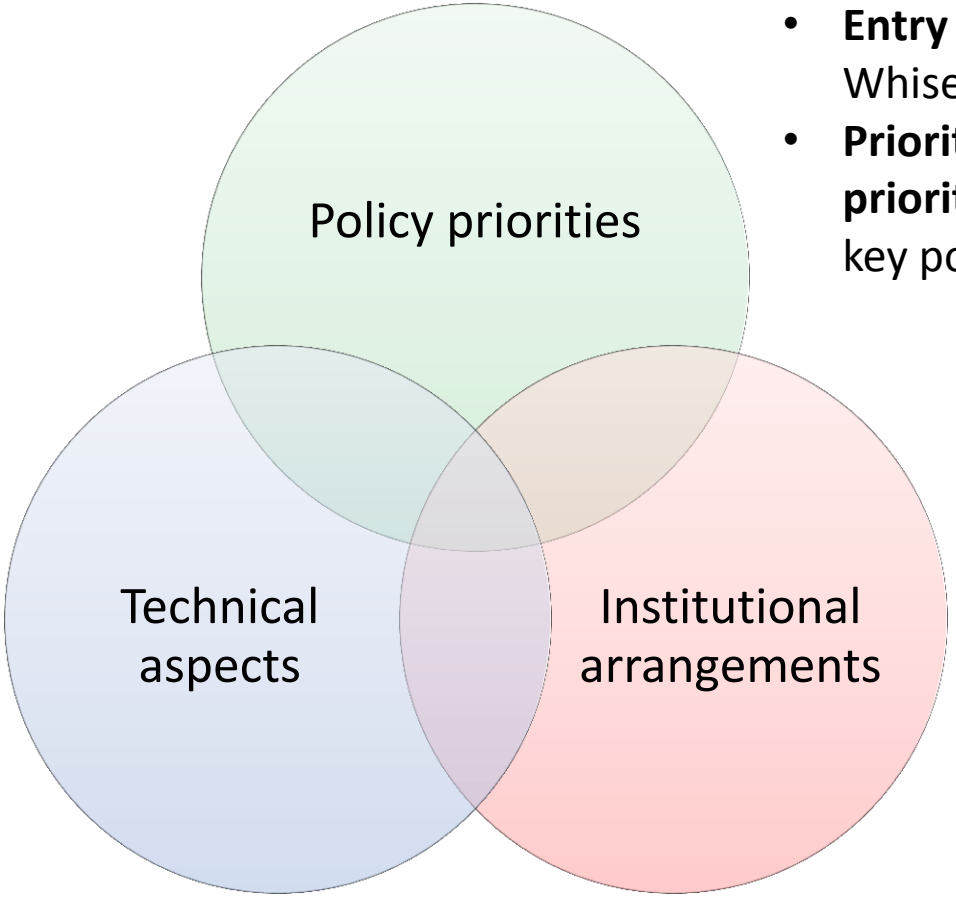
How to implement forest accounts?

The “art” of accounting… Is it possible? Could we have a “recipe” to go from A to Z in a linear process?



- **Entry points.** Whises vs realities
- **Prioritizing policy priorities,** defining key policy questions

- **Defining Policy priorities**
- Technical capacity
- Data gaps

- Leadership
- Data sharing
- Responsibilities
- Multi-stakeholdersm, defining **policy priorities and interests**

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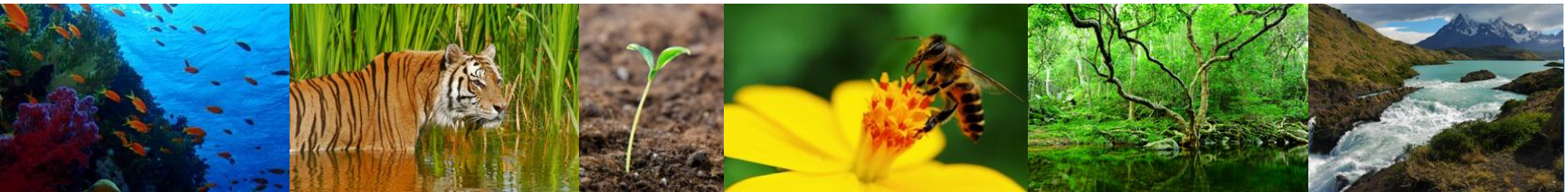
What to expect from WAVES?

- Support to implementation programs
- Training material and guidelines
- Workshops
- Community of practice
- PTEC – Work on methodologies for forest ecosystem services.

Forest Accounting for Development

Capturing the Value of Forests Using Natural Capital Accounting

Day 2 – Establish indicators



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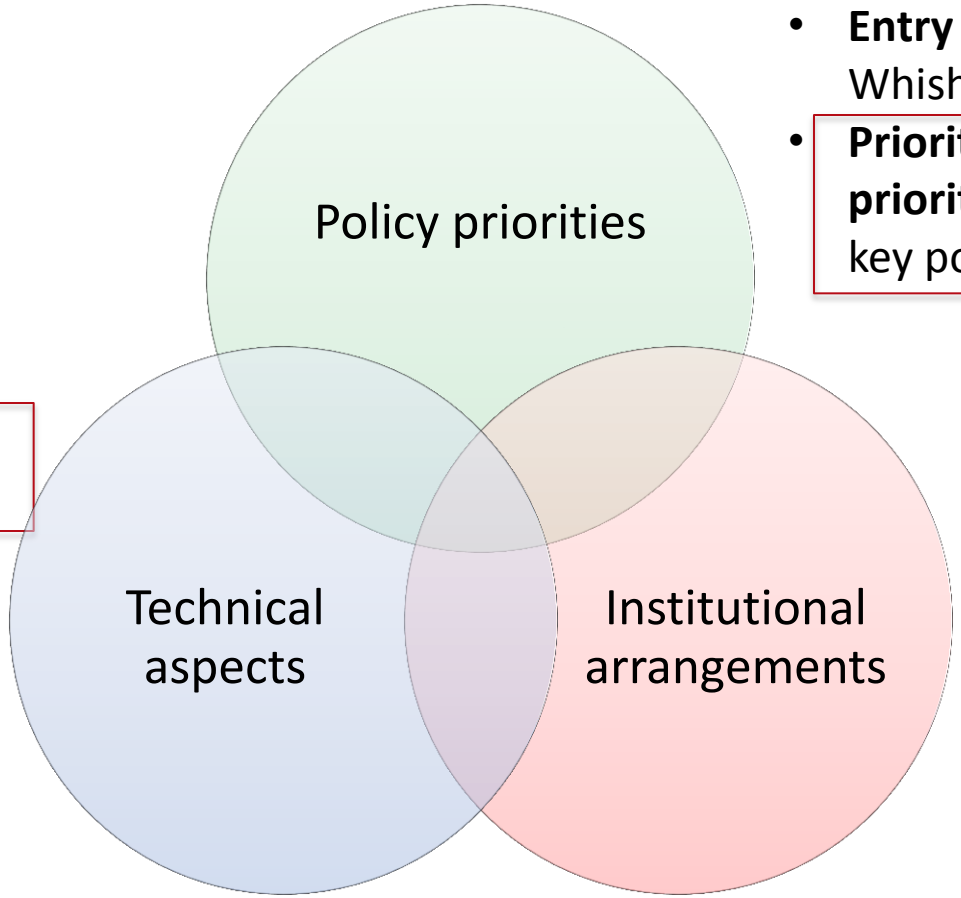
The “art” of forest accounting…



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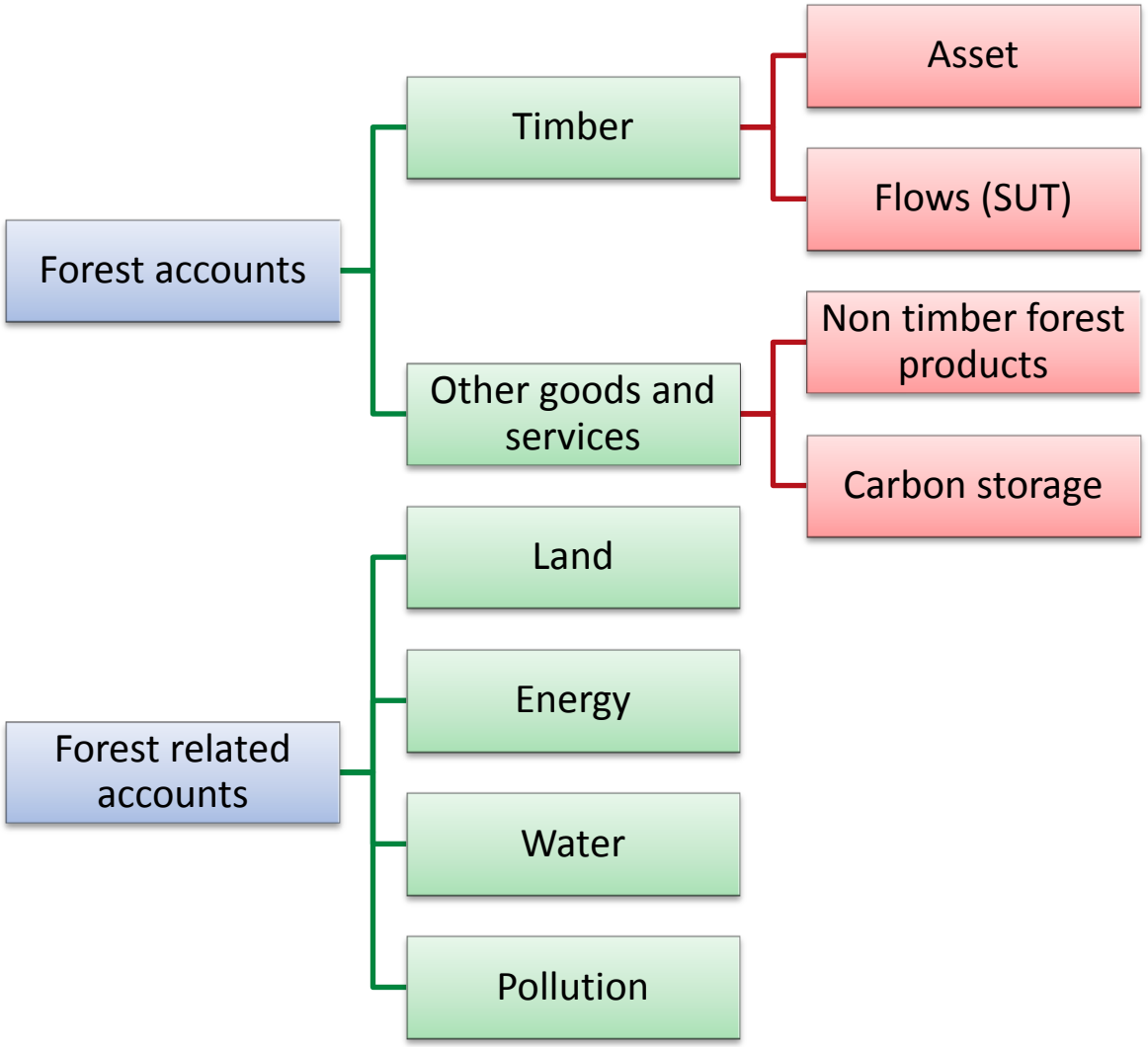
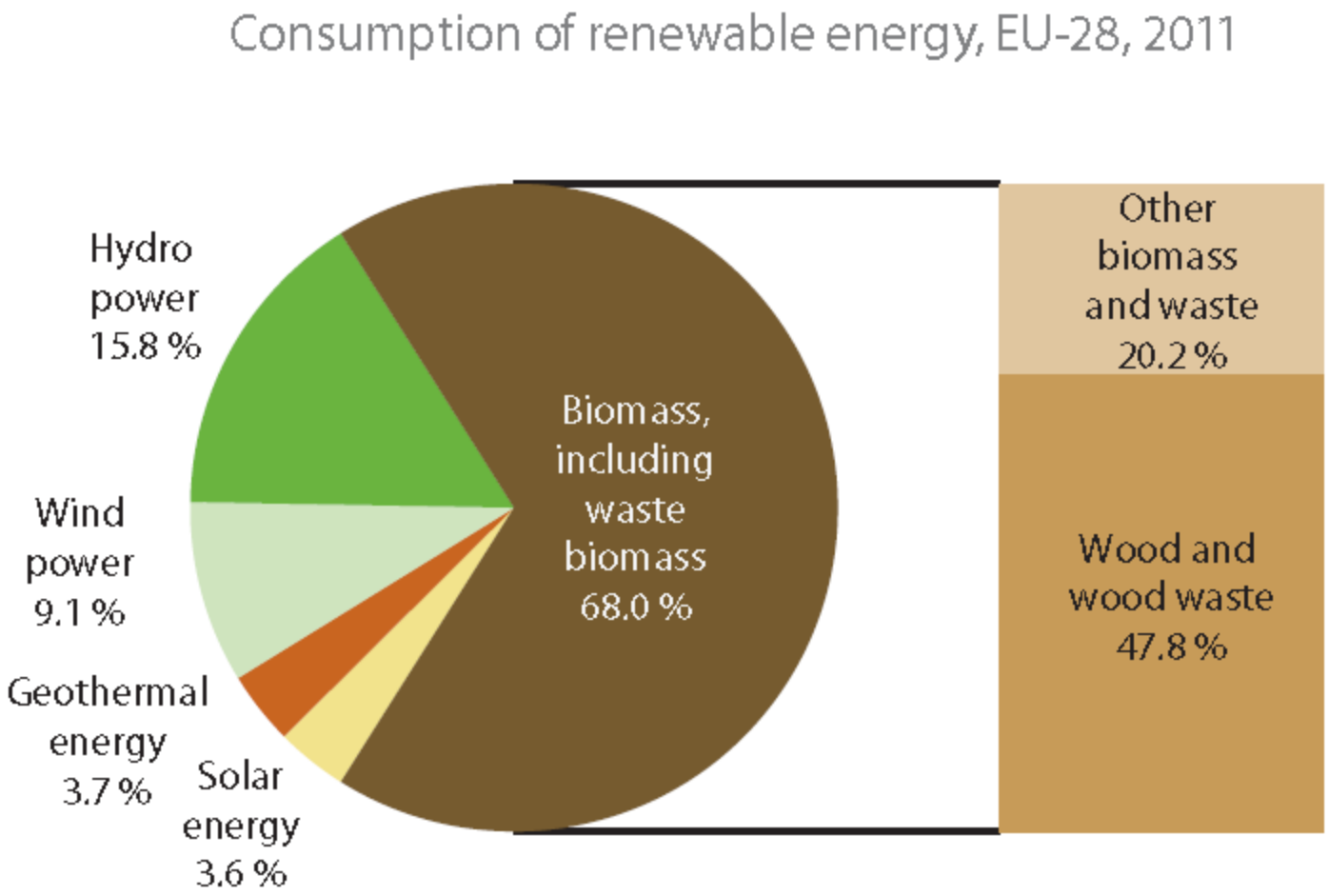
Forest and forest related accounts



An example of the links



Source: Eurostat (online data codes: nrg_1071a and nrg_1072a)

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Questions to indicators/measures

- What is the total economic contribution of forests and what are the benefits from sustainable management?
  - Total value of forests including non-market forest goods and services
    - Measure of the value of forests' contribution to GDP
  - Value of forest services to non-forestry sectors
    - Measure of the economic importance of forest services to agriculture, electricity, fisheries, water supply, etc.
  - Value of forest goods and services used by local communities
    - Measure of dependence of forests and opportunities for management

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Value to other non forest sectors

Production of forest goods and services in Swaziland by ecological zone, 1999
(million emlangeni)

	Cultivated forests (mainly highveld)	Natural forests and woodlands					Total
		High-veld	Middle-veld	Low-veld	Lubombo	Sub-total	
1. Commercial timber	40.7						40.7
2. Forest products for own-use, mainly non-market							
Timber		56.9	44.3	38.1	15.7	155.0	155.0
Edible plants		0.4	0.2	0.5	0.1	1.2	1.2
Medicines		0.1	0.4	0.1	0.0	0.7	0.7
Thatch, weaving grass		3.1	3.0	2.7	0.1	9.0	9.0
Livestock grazing		1.5	1.6	1.1	0.3	4.6	4.6
Sub-total		62.0	49.6	42.6	16.2	170.4	170.4
3. International tourism						0.1	0.1
4. Carbon storage	91.3	Carbon values for natural forests and woodlands not distributed by ecological region				7.9	99.2
Total							**310.4**
GDP, 1999							**8,410.0**
Forest values omitted from GDP							
Forest products for own use (except livestock)*							165.8
Carbon storage							99.2
Sub-total							264.0

*Assumes virtually the entire production value of non-market forest goods is value-added (labour cost), so the production value and contribution to GDP are the same. (See discussion in Chapter 2).
Note: The currency of Swaziland, the emlangeni, is equivalent to the South African rand and was worth 0.154 euros in 1999.
Source: Adapted from Hassan, Mbuli and Dlamini, 2002, p.40, Table 11, and author's calculations.

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Value of forest goods and services in Sweden
(Million Euros)

	1993	1995	1999
Timber harvest	2080	2540	2370
Non-timber goods	273	233	225
Forest services			
Recreation*	2370	2370	2370
Protection from noise	20	20	20
Carbon storage	1050	630	810
Subtotal	3440	3020	3200
Total output of forests	**5793**	**5793**	**5795**

Based on FAO, 2004

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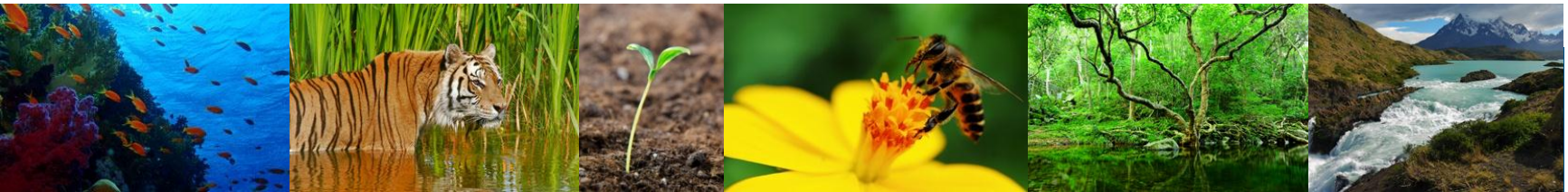
Forest Accounting for Development

Capturing the Value of Forests Using Natural Capital Accounting

Day 2 – Policies (Making the links)



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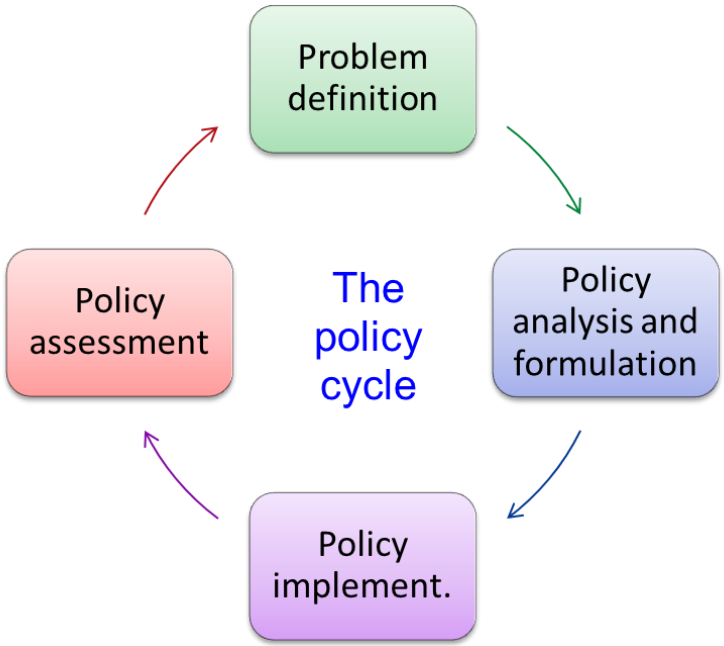
What is the total contribution of forests and what are the benefits from sustainable development?

- Total value of forests including non-market forest goods and services
- Value of forest services to non-forestry sectors
- Value of forest goods and services used by local communities



- Additional budget
- Economic instruments
- Poverty reduction

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What is the total contribution of forests and what are the benefits from sustainable development?

- Measure of the value of forests' contribution to GDP
  - Showing a higher value for forest contribution to GDP may increase the forestry sector's ability to request a larger share of national budget for forest management and investment.

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What is the total contribution of forests and what are the benefits from sustainable development?

- Economic importance to other sectors
  - Design of economic instruments to promote sustainable forest use:
    - Hydroelectricity tariffs
    - Tourism fees
    - Negotiate international finance
  - Build multi-sectoral alliances on the basis of mutual benefits
  - Identify institutional weaknesses, who benefits but is not paying

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What is the total contribution of forests and what are the benefits from sustainable development?

- Share of forest goods in rural livelihoods provides measure of dependence on forests of local communities.
  - Useful for design and implementation of Poverty reduction strategies.

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Linking accounts and indicators to policy: Background

Using the set of indicators you developed in Exercise 2

- Chose the best indicators to support the policy ensuring they are relevant for your decision makers
- Explain how your indicators will help inform the policy decisions you have selected.
- What is your story?
- What do you think the policy responses are likely to be?

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