

Environmental-Economic Accounting *Lessons Learned*

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Outline

- Country Experiences' Review
- Key Impediments
- Building blocks

Components

1. Natural resource asset accounts
2. Material flow and pollution accounts
3. Environmental protection and resource management expenditures
4. Environmentally adjusted macroeconomic aggregates

Review: Modules compiled by countries surveyed by UNSTAT

Developed Regions		
<i>Module</i>	<i>Number of countries</i>	<i>Percentage of countries</i>
Total countries - Developed regions ..	29	100
Energy and emission accounts	22	76
EPEA.....	18	62
MFA/Waste accounts.....	16	55
Forest Account.....	13	45
Water Accounts.....	9	31
Mineral Asset Accounts	5	17
Fisheries Accounts.....	4	14
Land and Ecosystem Accounts.....	4	14
PSUT	3	10
Other.....	6	21

Developing regions		
<i>Module</i>	<i>Number of countries</i>	<i>Percentage of countries</i>
Total countries -Developing regions ..	15	100
Water Accounts.....	13	87
Energy and emission accounts.....	11	73
Mineral Asset Accounts.....	9	60
Forest Account	9	60
Land and Ecosystem Accounts	6	40
MFA/Waste accounts	6	40
EPEA.....	6	40
Fisheries Accounts.....	5	33
PSUT.....	2	13
Other	3	20

Source : UNSTAT, Global Assessment of Env'l Statistics and Env-econ Acctg, 2007.

EPEA = envl protection expenditures; PSUT = physical supply and use table;

MFA material flow accounts

Review: scope

- Half of 99 countries surveyed by UNSTAT compile Environmental –Economic accounts
- None implemented all components of SEEA
- Commonly compiled:
 - Developed countries: energy & emissions, environmental protection and waste accounts
 - Developing countries: water, energy and emissions, minerals , forests,
- More physical accounts than monetary accounts.

Review: scope

- Valuation for depletion and degradation, pollution damage, etc. is not widely implemented.
- No developed country compiles the monetary macroeconomic indicators described in SEEA
- Only Australia and Canada compile the monetary macroeconomic indicators with natural capital in annual Balance Sheets (with total national wealth).
- The World Bank: Adjusted Net Savings (or Genuine Savings)

Review: implementation and funding

- Mostly country level
 - few regional: EU; Eastern and Southern Africa
- Developed countries
 - Implementation most extensive in EU member countries, Norway, Canada, Australia and New Zealand.
 - Largely self-funded with the exception of Eurostat funding environmental accounting in selected EU member countries.

Review: implementation and funding

- Developing countries
 - Relatively few, even on a one-off basis;
 - Fewer on a permanent, self-funded basis
 - Most are funded by international agencies, bilateral donors, and NGOs
 - Rely much on technical cooperation for training and expertise.

Review: institutions and policy uses

- Usually located in one institution:
 - econ statistics agency more than environment agency
 - supported by advisory groups
 - choice of lead agency is crucial with limited staff
- Specific components used by line ministries and agencies for planning and policy analysis
 - integration of EA data with macroeconomic planning tools: Norway, Sweden
 - water act in Australia
 - carbon footprint and sustainable consumption in UK.

Key impeding factors to EA

General

- Lack of international endorsement and clear guidelines for valuation
- Insufficient cross-country avenues for training and exchange
- Incomplete 'umbrella framework' on environmental accounts and environmental statistics

Specific to developing countries

- Lack of legal framework, institutional set-up and political space
- Limited data, skills and resources
- Institutional leadership unable to promote policy use by other ministries.
- Concern that EA delivers only 'bad news'
- Lack of support and technical cooperation

Key impeding factors and prospects

- Most developing countries: novelty of the tool, lack of expertise in environmental economics and, weak traditions of using data and indicators to guide policy decisions deter policy use
- Exceptions where previous experience exists that would enable updated SEEA, wealth accounting and valuation of ecosystems:
 - Mexico , Colombia, Peru, Brazil
 - South Africa, Uganda, Ghana
 - India
 - Indonesia, Philippines (ten years experience, but hibernated during last years), China
- Building blocks for wealth accounting , valuation of ecosystem services and policy uses: institutional set-up; skills; data; collaborators; political space

Building blocks: Mexico

- Initial work with the World Bank; continuing uptake of information from the London group and the regional bodies (on environment statistics; ECLAC) by INEGI
- Green net national product since the mid-eighties;
- Green GDP in the National Development Plan (NDP) 2001-2006
- Satellite accounts national accounts and economics statistics agencies with technical inputs from other agencies (e.g., SEMERNAT, Water Commission)
- Environment statistics program is linked with EA program
- No apparent competition among implementing bodies
- Continued without external funding

Building blocks: Colombia

- Since early 1990's with collaboration among statistics (DANE), government agencies, and academe with support from UNSTAT
- Information associated with environmental accounts has been an essential input to formulating and monitoring public policy, design of environmental competitiveness indicators and economy-environment models including climate impacts
- Provided assistance to Venezuela, Peru and Bolivia on government environmental protection expenditure
- Significant contribution to the development of environment statistics
 - used own resources for current effort

Building blocks: Participatory Processes in Uganda and Madagascar

Uganda:

- Uganda CEA is carrying out valuation of some ecosystem services and WAVES will build on that.
- National workshop planned for July/August to establish lead agency, national committee, identify natural capital priorities, and other activities of preparation phase

Madagascar

- Two workshops held and an interim Technical Working Group set up to guide a data assessment by consultants.
- National workshop planned for August/September to establish lead agency, national committee, identify natural capital priorities, and other activities of preparation phase

Building blocks: Philippines

- Learning from experience:
 - Two initiatives: Dept of Env't & Nat. Resources - ENRAP (1990-99) funded by USAID; Nat'l Stat'l Coordinating Board - PEENRA (1995-2002) funded by UNDP
 - ENRAP's comprehensive approach (Peskin framework), welfare – oriented measure
 - Enabled policy-reforms, e.g.: development of user fees; resource rent appropriation; Clean Air Act trade liberalization and growth alternatives; options for reducing air pollution;
 - Many, in collaboration with other initiatives
 - But with consumers surplus, + and – adjustments, ENRAP adjusted GDP was not statistically different from the original and disappointed the economic planning body which at that time was fixated with a green GDP.

Building blocks: Philippines

- ENRAP's technical support enabled NSCB's initial work on SEEA
- Despite eventual competition between the two initiatives, with legal support and government funding (but only to DENR) after end of ENRAP.
- Changes in government: subsequent decline in political & budget support, brain drain; but latent capacity exists.
- Continuing collaboration: macroeconomists, env'l economists, scientists; ES valuation work by think tanks.
- Country Environmental Analysis (2009); other initiatives