An overview of the SEEA with emphasis on Environmental Protection Expenditure Accounts

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United Nations Statistics Division

Outline of presentation

- Policy demand
- Main features of the SEEA
- Conceptual framework of the SEEA and links to the proposed Biofin conceptual model
- Conceptual elements of EPEA
- SEEA implementation
- Some thoughts on the way forward

Policy landscape

- SDG
  - Integrated policies in need for integrated information system (SNA, SEEA CF, SEEA EEA can inform many goals and targets)
- Aichi targets
  - SEEA been recognized as the framework to report on Target 2 as well as other targets
- Green economy/Green growth
  - OECD has launched data collection on air emission and subsoil assets with intention to expand to other accounts
- Beyond GDP
  - Eurostat has mandatory reporting on: air emission accounts, MFA, EPEA, env. Taxes, energy and EGSS
- Natural Capital Accounting
  - World Bank recognizes the SEEA as the underlying statistical framework

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Biodiversity Finance Initiative (BIOFIN)

SEEA is the international statistical standard for measuring the relationship between the environment and the economy.

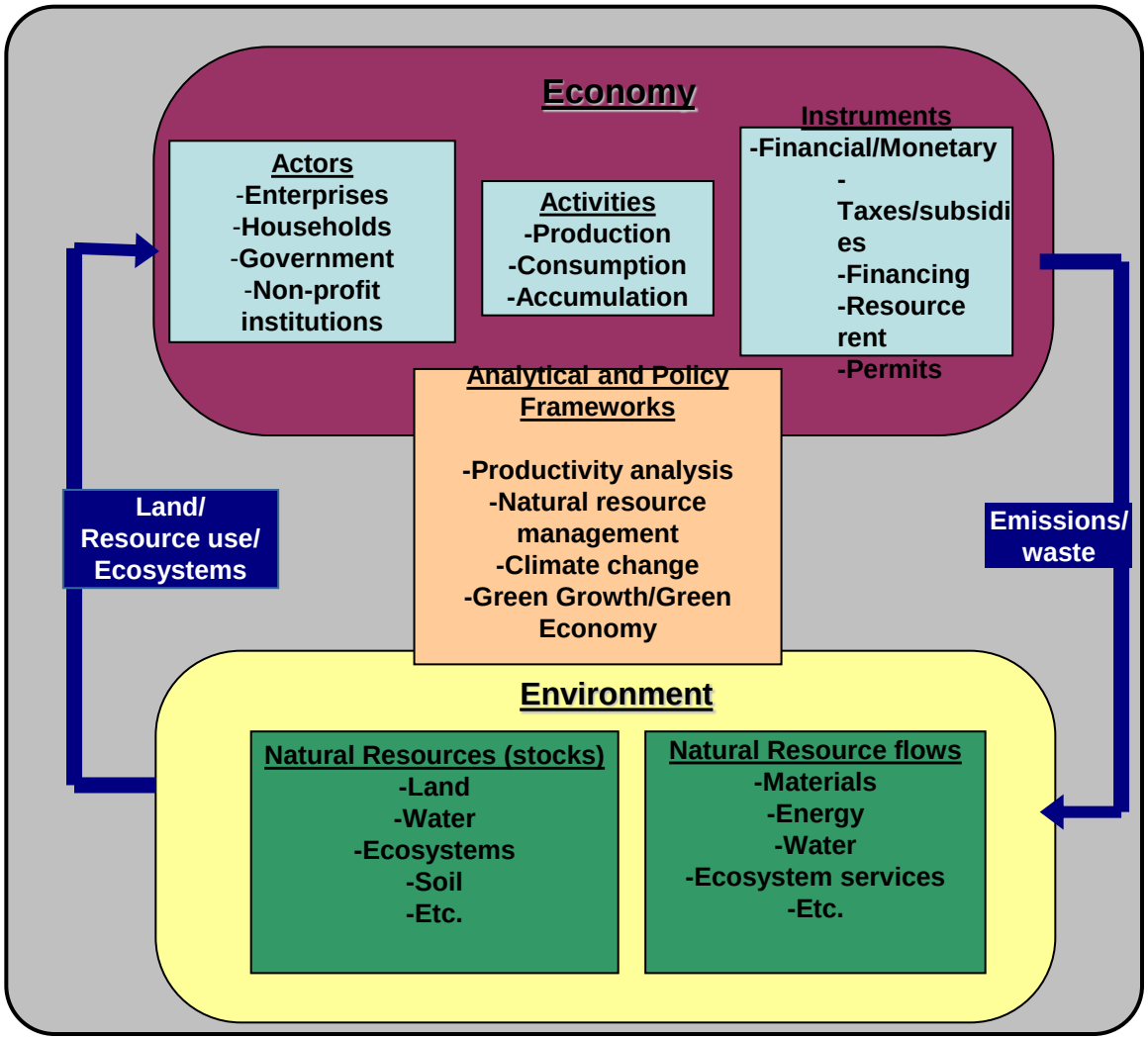
- Stocks and flows
- Coherent and internally consistent
- Integrated/Linked to SNA
- Comprehensive
- Time series measuring same concept over time
- Apply to both physical and monetary based data (key to SCP type indicators)

SEEA contains a number of accounts:

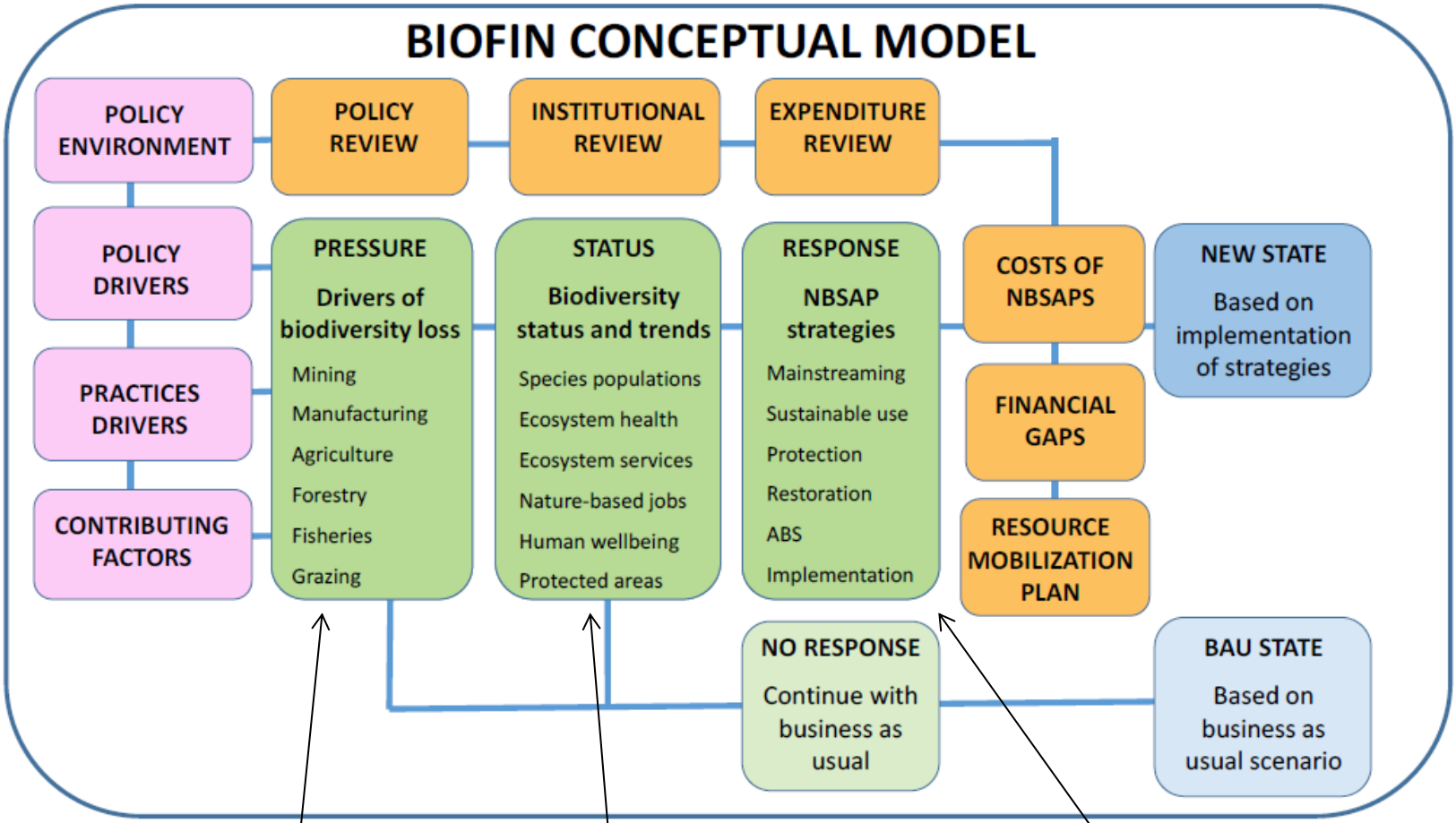
- Physical flow accounts
- Asset accounts
- Combined presentation
- Accounts for environmental activities and transaction
  - Environmental activities
    - Environmental protection
    - Resource management
  - Environmental Protection Expenditure Account
  - Environmental Goods and Services Sector (EGSS) statistics
  - Environmental taxes and subsidies

Conceptual framework of the SEEA

Outside territory of reference



Outside territory of reference



SEEA CF Accounts

Ecosystem Accounts

Accounts for environmental activities and transaction

Environmental Protection Expenditure Account

- The purpose is to enable identification and measurement of society's response to environmental concerns through the supply of and demand for environmental protection services.
- **4 interlinked tables proposed**
  - Production of environmental protection specific services
  - Supply and use of environmental protection specific services
  - Expenditure for environmental protection purposes
  - Total national expenditure on environmental protection

Classification of Environmental Activities: overview of groups and classes

Group	Classes
I: Environmental protection (EP)	1 Protection of ambient air and climate
	2 Wastewater management
	3 Waste management
	4 Protection and remediation of soil, groundwater and surface water
	5 Noise and vibration abatement (excluding workplace protection)
	6 Protection of biodiversity and landscapes
	7 Protection against radiation (excluding external safety)
	8 Research and development for environmental protection
	9 Other environmental protection activities
II: Resource management (RM)	10 Management of mineral and energy resources
	11 Management of timber resources
	12 Management of aquatic resources
	13 Management of other biological resources (excluding timber and aquatic resources)
	14 Management of water resources
	15 Research and development activities for resource management
	16 Other resource management activities

- *EP 4: Protection and remediation of soil, groundwater and surface water* refers to measures and activities aimed at the prevention of pollutant infiltration, cleaning up of soils and water bodies and the protection of soil from erosion and other physical degradation as well as from salinization.
  - 4.1 Prevention of pollutant infiltration
  - 4.2 Cleaning up of soil and water bodies
  - 4.3 Protection of soil from erosion and other physical degradation
  - 4.4 Prevention and remediation of soil salinity
  - 4.5 Measurement, control, laboratories and the like
  - 4.6 Other activities

- *EP 6: Protection of biodiversity and landscape* refers to measures and activities aimed at the protection and rehabilitation of fauna and flora species, ecosystems and habitats as well as the protection and rehabilitation of natural and semi-natural landscapes.
  - 6.1 Protection and rehabilitation of species and habitats
  - 6.2 Protection of natural and semi-natural landscapes
  - 6.3 Measurement, control, laboratories and the like
  - 6.4 Other activities

- *RM 13 Management of other biological resources (excluding timber and aquatic resources)* Includes the activities and actions aiming at minimizing the intake of biological resources other than timber and aquatic resources through in-process modifications as well as the use of alternative resources and any other kind of measure.
  - 13.1 Reduction of the intake of biological resources
  - 13.2 Replenishment of biological resources stocks
  - 13.3 Measurement, control, laboratories and the like related to biological resources stocks
  - 13.4 Other activities for the management of biological resources

Production of environmental protection specific services (*currency units*)

	Producers				
	Specialist producers				
	Government producers	Other specialist producers	Non-specialist producers	Own-account producers	Total
Output of environmental protection specific services	3 000	6 500	2 400	1 600	13 500
Intermediate consumption	2 000	3 000	600	400	6 000
Environmental protection specific services	1 800	1 500	500	300	4 100
Other goods and services	200	1 500	100	100	1 900
Gross value added	1 000	3 500	1 800	1 200	7 500
Compensation of employees	600	2 000	1 200	800	4 600
Taxes less subsidies on production					
Consumption of fixed capital	400	1 000	600	400	2 400
Net operating surplus		500			500
Supplementary items					
Labour input (hours worked)	4 000	10 000	4 500	4 000	22 500
Gross fixed capital formation	1 100	1 000	2 000	500	4 600
Acquisition less disposals of non-produced, non-financial assets		200			

Total national expenditure on environmental protection (*currency units*)

	Users						
	Industry						
	Producers of environmental protection specific services						
	Specialist producers	Non-specialist and own-account producers	Other producers	Households	General government	NPISH[a]	Total
Type of expenditure by product							
Environmental protection specific services							
Intermediate consumption	NI	4 000	3 400				7 400
Final consumption				2 970	1 800		4 770
Gross fixed capital formation	NI		100				100
Connected products							
Intermediate consumption	NI		200				200
Final consumption							
Gross fixed capital formation	NI						
Adapted goods							
Intermediate consumption	NI						
Final consumption				600			600
Gross fixed capital formation	NI						
Capital formation for characteristic activities	2 100	2 500					4 600
Transfers for environmental protection not included above							
Environmental protection transfers to and from the rest of the world (net)					200		200
Total national expenditure on environmental protection	**2 100**	**6 500**	**3 700**	**3 570**	**2 000**		**17 870**

Financing of national expenditure on environmental protection *(currency units)*

Financing units	Users							
	Producers of environmental protection specific services							
	Specialist producers	Non-specialist and own-account producers	Other producers	Households	Government	NPISH[a]	Rest of the world	Total
Government	1 300	1 100			1 700		300	4 400
Corporations								
Specialist producers	800	5 400						6 200
Other producers			3 700					3 700
Households				3 570				3 570
National expenditure	2 100	6 500	3 700	3 570	1 700		300	17 870
Rest of the world					100			100
Total uses of resident units	2 100	6 500	3 700	3 570	1 800		300	17 970

Other closely linked tables

Environmental taxes by type of tax

Type of environmental tax	Type of tax						
	Taxes on products	Other taxes on production	Taxes on income		Other current taxes	Capital taxes	Total
			Corporations	Households			
Energy taxes	10 800	1 500				300	12 600
Carbon taxes	4 600						4 600
Taxes on fuel used for transport	4 700						4 700
Other energy taxes	1 500	1 500				300	3 300
Transport taxes	2 600	800			1 400	100	4 900
Pollution taxes	400	500			200		1 100
Resource taxes	200	400			300		900
Total environmental taxes	**14 000**	**3 200**			**1 900**	**400**	**19 500**
Non-environmental taxes	79 000	15 400	23 000	74 000	5 800	1 600	198 800
Total taxes	**93 000**	**18 600**	**23 000**	**74 000**	**7 700**	**2 000**	**218 300**
Share of environmental taxes (percentage)	*17.7*	*20.8*	*0.0*	*0.0*	*32.8*	*25.0*	*9.8*

Proposed example from Eurostat

DRAFT - QUESTIONNAIRE FOR EPE LEGAL MODULE
background document for point 2 of agenda 21 February 2014

Country: _____

Table 1. General government

Data required by the draft legal act

MIO NAT CURRENCY

Expenditure	Year	CEPA 2	CEPA 3	CEPA 6	Sum of CEPA 1+4+5+7	Sum of CEPA 8+9	TOTAL
(O.1) EP output [P1] (Onmk.1) + (Omk.1)	2014 2015 2016						
(Omk.1) Market output [P11] Includes P.11 (market output) of government local KAUs that are market producers	2014 2015 2016						
(Onmk.1) Non-market output [P13] Includes P.131 (payments for non-market output)	2014 2015 2016						
(GCF.1) Gross capital formation and acquisition less disposals of non-financial, non-produced assets for the production of EP services [P5 + NP] *(A) Investment expenditure*	2014 2015 2016						
(F.1) Final consumption of EP services [P3] (Onmk.1) less P.131 (payments for non-market output)	2014 2015 2016						

Other closely linked tables

Environmental goods and services sector (*currency units*)

Previous

		Producers			
		Specialist producers			
		Government producers	Other specialist producers	Non-specialist producers	Own-account producers
Output of environmental goods and services					
Environmental specific services	Environmental protection	3 000	6 500	2 400	1 600
	Resource management	3 100	4 500	300	1 600
Sole-purpose products	Environmental protection			250	
	Resource management			400	
Adapted goods	Environmental protection			1 000	
	Resource management			3 000	
End-of-pipe technologies	Environmental protection	100	200	1 200	100
	Resource management	100	300	1 500	
Integrated technologies	Environmental protection			800	
	Resource management			700	
Total environmental goods and services produced		**6 300**	**11 500**	**11 550**	**3 300**
Intermediate consumption		3 800	6 500	6 700	1 450
Gross value added		2 500	5 000	4 850	1 850
Compensation of employees		2 100	4 200	4 300	1 500
Gross fixed capital formation		1 500	1 820	1 500	590
Exports of environmental goods and services			200	2 300	
Employment (thousands of people)		120	210	220	80

Objective of the SEEA implementation strategy

- Adoption of the SEEA as the measurement framework for sustainable development
- Mainstream the SEEA implementation in countries as part of regular production process
- Establish technical capacity for regular reporting on a minimum set of environmental-economic accounts

Considerations for SEEA implementation

- Strategic approach to the implementation
- Linking the implementation to policy demands
- Bottom-up approach
- Sub-regional and regional approach
- South-south cooperation
- Linked to the 2008 SNA implementation programme and global strategy for agriculture statistics
- Stages of implementation by 2020 based on national priorities

Elements of national SEEA implementation

- National assessment of existing initiatives – policy, data, stakeholders
- Development of national plan to be adopted by all stakeholders at the highest level
- Establishment of a formal coordination mechanism of main stakeholders (possibly with different layers – senior and technical)
- Agree on priorities
- Pilot compilation
- Analysis of gaps and plan to move towards an integrated production process

Elements of global SEEA implementation

- Coordination
  - Among international agencies and donors
  - With scientists/academia
  - Business community
- Development of tools and materials to support the national implementation
- Advancing the research agenda
- Development of baseline for the SDG

Tools in support of SEEA implementation

- Training material (E-learning, workshops, etc.)
- SEEA implementation guide, compilation manuals, diagnostic tools
- Core sets of SEEA tables for data collection and reporting
- Creation of E-platform – repository of technical and implementation materials and tools in support of the SEEA implementation
- In-country technical assistance

The way forward

- In depth analysis of different lists related to biodiversity expenditures
- Expert meeting to discuss the outcome of the analysis
- Statistical community has a framework in place
- SEEA Technical Committees
- Involvement of NSO

Thank you

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