



The General SEEA Framework

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Background on Environmental and Economic Accounting

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Introduction

- Until recently, national accounts never reflected the implications of human activities on environment
- Reasons:
 - These implications were viewed as local, reversible and unable to impede economic growth.
 - Environmental contributions were thought to be difficult to measure and require huge amounts of data



Introduction (cont'd)

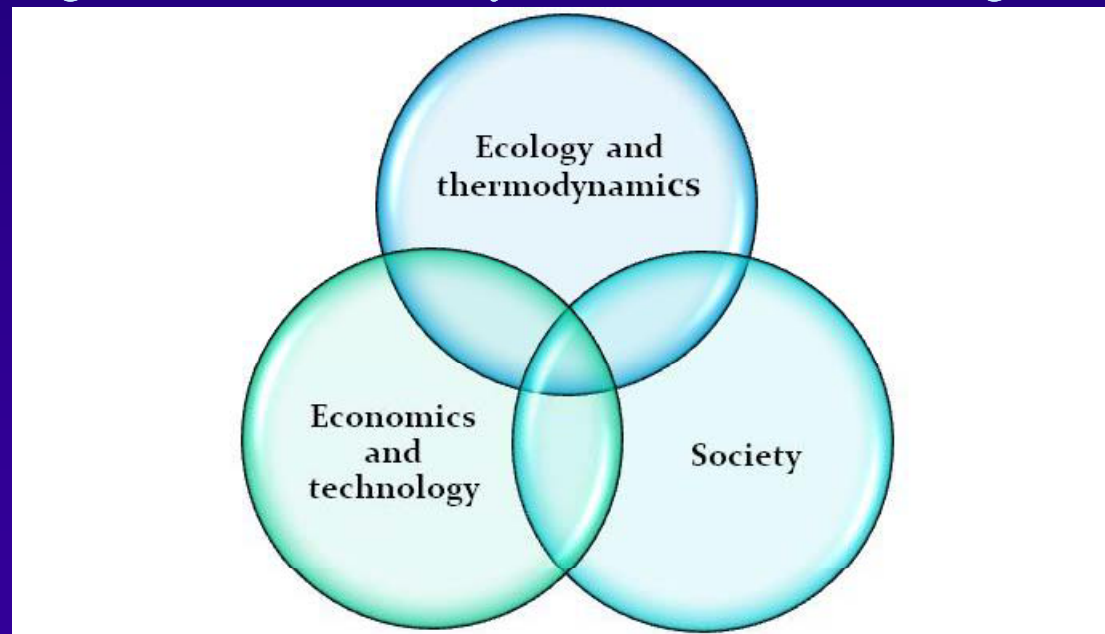
- However, these thoughts are shifting significantly to recognize the strong connection between human activities and environment, and the need to include environment in national accounts.
- This link between environment and economy and the concept of sustainable development were first pointed to by:
 - Brundtland Report in 1987
 - highlighted in chapter 8 of Agenda 21 of 1992 Earth Summit.



Introduction (cont'd)

- The Brundtland Report stresses on the need of developing the economic, social and environmental systems simultaneously in order to achieve sustainable growth.

Figure 1: Sustainability assessment Venn Diagram



Source: G.P. Hammond and A.B. Winett, "interdisciplinary perspectives on environmental appraisal and valuation techniques", vol.159, No.3 (August 2006)



Introduction (cont'd)

- The System of National Accounts (SNA)
 - Consists of a coherent, integrated set of macroeconomic accounts, balance sheets and tables based on a set of internationally agreed concepts, definitions, classifications and accounting rules. (SNA 1.1)
 - Draws on concepts as Gross Domestic Product (GDP) or Net Domestic Product (NDP) to measure country's wealth
 - Incorporates some natural resources (forests, land, minerals) as assets in the national balance sheets.



The System of Integrated Environmental And Economic Accounting (SEEA)

- The SEEA offers a framework to measure the contribution of the environment to the economy and vice-versa.
- Extends SNA accounts into:
 - Flows of products (goods and services produced within the economy)
 - Flows of natural resources (energy, water, mineral resources...)
 - Flows of ecosystem inputs (oxygen necessary for combustion, natural inputs needed for plants and animals growth...)
 - Flows of residuals (incidental and undesired outputs from the economy)



The System of Integrated Environmental And Economic Accounting (SEEA) (cont'd)

- Incorporates the effects of economic activities of governments, households and industries on natural assets as environmental costs resulting from these activities.
- Constitutes a useful analytical tool for governments to detect environmental problems, set priorities and develop suitable responses and future plans.
- SEEA has been updated constantly since 1993.



Figure 2: SEEA: flow and stock accounts with environmental assets

		Assets	
OPENING STOCKS		Economic assets	Environmental assets
		Industries	Households Governments
Supply of products	Domestic production		
	thereof: for environmental protection		
Use of products	Economic cost (intermediate consumption, consumption of fixed capital)		Gross capital formation, consumption of fixed capital
	Final consumption		
Use Of Natural Capital	Environmental cost of industries (imputed)		Environmental cost of households (imputed)
			Natural capital consumption
Other changes of assets		Other changes of economic assets	Other changes of environmental assets
Closing Capital		Economic assets	Environmental assets

Source: Department of Economic and social Affairs (DESA) and United Nations Environment Programme (UNEP), integrated environmental and economic accounting: an operational manual, No. 78 (2000)



The need for environmental –economic accounting in the ESCWA region

- ESCWA member countries rely heavily on non-renewable resources (oil, natural gas) to assist its economic growth
- As result , sustainable development in ESCWA member countries face various constraints and challenges such as: fast growing population rates, scarce water resources, excessive exploitation of natural resources, land degradation...
- for instance:
in 1998, the average population growth rate in the respective region = 2.8%
where the world average = 1.7%.
- 2006-2007, the average population growth rate =2.2%



The need for environmental –economic accounting in the ESCWA region (cont'd)

- 2000-2003: considerable reduction in available water resources per capita in 10 out of 14 member countries.
- Average per capita conventional water decreased from 949 to 913 m³
- World per capita conventional water = 7000 m³

Table 1 : Freshwater Status of ESCWA member countries, 2007 (m³ per capita per year)

Country or territory	Freshwater
Kuwait, United Arab Emirates, Jordan, Bahrain, Yemen, Palestine, Saudi Arabia, Oman	Acute scarcity: less than 500
Egypt	Scarcity: 500 -1000
Lebanon, The Sudan	Stress: 1000-1700
Iraq, Syrian Arab Republic	Abundance: more than 1700



System of Integrated Environmental and Economic Accounting for the ESCWA region

- Given the previously mentioned environmental challenges, the ESCWA member countries are expected to set up environment statistics programs to acquire timely, credible data on environment to rely on for future developmental plans or policies.
- in 2007, ESCWA presented a development account project proposal to DESA
- The project :
 - assists governments in establishing environment accounting systems to incorporate environmental issues in their economic policies and activities
 - stresses the significance of the integrated environmental & economic accounting systems such as SEAA in sustainable development



Global Assessment of Environment Statistics and Environmental-Economic Accounting

- Reports on the status of environment statistics in the ESCWA region illustrate significant differences among member countries.

Table 2 : the situation of environment statistics in ESWA region

Country	Have not yet started	Have recently started	Cover certain components	Have long experience
Lebanon, Syria, Egypt, Kuwait			X	
UAE, Qatar, Oman	X			
Saudi Arabia, Iraq, Yemen		X		
Jordan, Palestine				X



Global Assessment of Environment Statistics and Environmental-Economic Accounting (cont'd)

- The Global Assessment of Environment Statistics and environmental economic Accounting (2007):
 - Evaluates the status of national implementation of environment statistics programs and identifies priorities and future plans.
 - Includes 2 phases:
 - Phase I : collecting general data on environment statistics programs
 - Phase II: treating particular subject areas from phase I
- Results:
 - 30% of countries in the ESCWA region have a program on environmental accounting.
 - 84% of respondents assured the presence of a legal framework for environment statistics.



Global Assessment of Environment Statistics and Environmental-Economic Accounting (cont'd)

- Scope of the programs :
 - In developing countries, environment statistics programs and environmental economic accounting covers a wide variety of areas and accounts
 - Examples: water, air, forests, biodiversity, energy, minerals...
- Impeding factors:
 - Various factors were diagnosed as impeding factors for the implementation and development of environment statistics programs
 - Examples: lack of financial resources, absence of institutional framework, lack of access to training material. ¹