



Economic and Social Commission for West Asia



Developing Environmental Economic Accounts for the ESCWA/Arab Region

**LONDON GROUP ON ENVIRONMENTAL AND ECONOMIC
ACCOUNTING
17th MEETING
STATISTICS SWEDEN
STOCKHOLM
12-15 SEPTEMBER 2011**

Wafa Aboul Hosn, Ph.D.
Statistics Division
aboulhosn@un.org



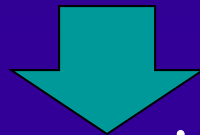
Outline

- **The need for environmental–economic accounting in the ESCWA region**
- **UNCEEA Minimum required dataset**
- **Intervention Arenas**
 - Funding
 - ESCWA's Coordination with UN and Regional Organizations
 - UNSD Technical Assistance to Regions
 - Facilitating Bilateral Cooperation
 - Advocacy at high level
 - Publications
 - Engaging in the revision of SEEA
- **Challenges in SEEA-Implementation in MSs**
- **Role of Organizations to Implement SE**



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
- ESCWA Average per capita :
 - Conventional water 1,124 m³ in 2007 (World 7,000 m³)
 - CO₂ emissions 4.8 tons in 2007, (World 4.3 tons)
 - Energy consumption 2.1 TOE in 2009 (0.027 in Sudan to 20.9 in Qatar)
 - Land degradation
 - Average annual population growth rate (1.2%) (World 0.3)



Constraints to sustainable development

Wafa A. HOSN UNESCWA

Wafa A. HOSN UNESCWA



UNCEEA Minimum required dataset

Physical flow accounts

- Air emission accounts (at least, greenhouse gas emissions),

- Water accounts

Asset accounts

- Energy accounts (with a key focus on the use, table), mineral and energy resources (in physical and monetary units);

- Environmental expenditure accounts (EPEA)

Monetary flow accounts

- Environmental taxes and emission permits,

- Land (forest) accounts

Ref.: Initiating a SEEA Implementation Program – A First Investigation of Possibilities . Paper prepared by Bram Edens, Mark de Haan, and Sjoerd Shenau of Statistics Netherlands. ESA/STAT/AC.238. UNCEEA/6/19



Intervention Arenas

- I. Funding
- II. ESCWA's Coordination with UN and Regional Organizations
- III. UNSD Technical Assistance to Regions
- IV. Facilitating Bilateral Cooperation
- V. Advocacy at high level
- VI. Publications
- VII. Engaging in the revision of SEEA



I-Funding

ESCWA's Extra Budgetary Projects to Develop Statistical capacity of countries:

- Project on Environment Statistics and Accounts (ESIAP) 2007-2010 with ECLAC
- Project on Energy Statistics and Balance 2011-2013 in ESCWA
- UNSD project on green Economy with regional commissions
- Jordan presented project to create a unit for environmental accounts to Islamic Bank



II-ESCWA's Coordination with UN and Regional Organizations

on environmental accounting:

- Medstat/ Eurostat
- ECLAC
- LAS
- UNEP
- WB
- EEA: to be determined



III-UNSD Technical Assistance

- Regional advisor to assist countries- This was provided 2006-2010
- Now UNSD prefers subregional workshops instead of country technical assistance (i.e South Africa workshop)
- However, countries in ESCWA (Egypt and Palestine) expressed preference to individual technical assistance
- Methodological documents for training (SEEAW Exercises, IRES, IRWS in UN languages))



IV-Facilitating bilateral cooperation

ESCWA facilitated and funded technical on
SEEAW:

- From Netherlands to Jordan (February 2010)
- From Austria to Saudi Arabia (January 2011)
- From Mexico to Egypt



- From Turkey to Iraq and from Bahrain and Oman to Tunisia via MEDSTAT(study visit)
(Attempt to organize study visit to Sweden: High Cost)
- Coordination with bilateral assistance from European-OECD countries to ESCWA member countries (Norway's assistance to Egypt included Energy Accounts)
- EEA assistance on water and environment information system (Egypt, Palestine, Lebanon)



V-Advocacy at high level

- High Level Meeting for Ministries of Finance on Green Economy in ESCWA : ESCWA presented SEEA to representatives from Ministries of Finance in Arab countries during the Regional Preparatory Meeting Series for Rio+20: Meeting on “Economic Policies Supporting the Transition to a Green Economy in the Arab Region” Beirut, 20-21 July 2011 in coordination with League of Arab States
- Council of Arab Ministers of Water :SEEAW and the IWRM in the Arab region (March 2010) in coordination with League of Arab States



VI-ESCWA Publications

Framework for Environmental
Economic Accounting in the
ESCWA Region



ESCWA

United Nations Economic and Social Commission for Western Asia

إطار للمحاسبة
البيئية الاقتصادية
في منطقة الإسكوا



الإسكوا

الأمم المتحدة - اللجنة الاقتصادية والاجتماعية لغربي آسيا

<http://www.escwa.un.org/information/publications/edit/upload/sd-09-3.pdf>



VII-Participation at Revision of SEEA

- At the IRWR and IRES
- At the SEEA Revision:
 - ESCWA input and member countries inputs:
 - Palestine-PCBS (Chapters 2, 3,4,5) Lebanon-CAS (Chapters 3,4,5), Jordan-DOS (Chapter 5)
 - <http://unstats.un.org/unsd/envaccounting/seearev/chapterList.asp?volid=1>

Environment Statistics, Indicators and Accounts Project (ESIAP)

for ESCWA-Arab Region and ECLAC

[About ESCWA](#)

[Partners](#)

[Topics](#)

[Contact Us](#)

- [Home](#)
- [Background](#)
- [About ESIAP](#)
- [Expected Results](#)
- [ESCWA Activities](#)
- [ECLAC Activities](#)
- [ESIAP Database](#)
- [ESIAP Forum](#)
- [ESIS Database](#)
- [ESIAP Network](#)
- [Questionnaire 2010 on Environment Statistics](#)
- [Publications](#)

Home

"Strengthening National Capacities in Environment Statistics, Indicators and Accounts Project" (ESIAP) in support of progress toward achieving the internationally agreed development goals in the ESCWA and ECLAC Regions" is a development account project that aims to strengthen National Capacities of ESCWA and ECLAC countries in the collection, coverage, dissemination and exchange of reliable, timely and comparable environment statistics, indicators, and accounts taking advantage of an integrated environmental statistical system approach (IESS) to provide policy makers with tools to monitor and ensure environmental sustainability in line with national and internationally agreed development goals (IADGs) such as WSSD and MDGs.

The 2-years project includes missions to countries, expert group meetings, regional and sub-regional workshops, fellowships, development of database and docubase, and the development of a network for experts and institutions in the field to learn from their peers and exchange success stories and lessons learned.

News

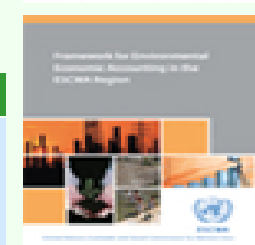
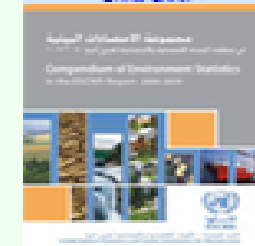
- [Fellowship](#)
- [Missions](#)
- [Project Final Report](#)
 - [ESIAP Final Report](#)
 - [ESIAP Final Report- Annexes](#)
- [Training Workshops](#)
 - [National Workshop on Environment Statistics in Sudan, 2-4 November 2010](#)
 - [UN Regional Meeting on Environment Statistics and Accounts and Evaluation of the ESIAP project, 7-9 April 2010](#)
 - [National workshop on Environment Statistics and Water Accounts in Yemen, 21-24 June 2010](#)
 - [LAS First Meeting of the Arab Working Group on Environment and Sustainable Development Indicators, 15-17 March 2010](#)
 - [Expert Group Meeting on Environmental Accounting for the ESCWA Region, 14-16 October 2009](#)

Links

- [International Institute for Sustainable Development](#)
- [Gulf Cooperation Council](#)
- [Arab Water Council](#)
- [Bahrain](#)
- [Egypt](#)
- [International and Regional Resources](#)
- [Iraq](#)
- [Jordan](#)
- [Kuwait](#)
- [Lebanon](#)
- [Oman](#)
- [Palestine](#)
- [Qatar](#)
- [Saudi Arabia](#)
- [Sudan](#)
- [Syria](#)

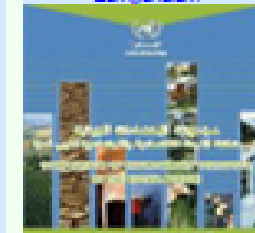
Info Corner

[Introduction](#)



[Arabic](#)

[Compendium](#)





The Network

Home | THE DOCUBASE | THE NETWORK | THE FORUMS | ESIAP Homepage

The Network

You are logged as admin

Home | Your profile | Search the Network | Logout

The network's main menu

The ESIAP network and forum was established in July 2008 as part of the activity account project "Strengthening National Capacities in Environment Statistics, Indicators and support of progress toward achieving the internationally agreed development goals for ECLAC Regions" for 2008-2009 .

The development the network and forum on environment statistics, indicators and a networking between of experts, practitioners and institutions, in the Arab region through interactive sharing and knowledge management. The network and forum facilitate intra-regional cooperation and strengthen links between producers and users.



See & modify your **profile**

Search the **Network's members** database



The Forum

Home | THE DOCUBASE | THE NETWORK | THE FORUMS | ESIAP Homepage

The Forums

You are logged as admin

Home | Threads | Rules | Contact & infos | Logout

The Forum's main menu

The ESIAP Forum provides a meeting place for where professional discussion on environment statistics, indicators and accounts is maintained. The forum facilitates contacts and exchange of experience and resources among its members.

Pick a **thread** and **post** a message
Participate in the ongoing discussions

Propose a thread of discussion
Your proposition will be submitted for validation by the forum Admin





Assessment of Environment Statistics and Environmental-Economic Accounting in ESCWA after the project

Country	Have not yet started	Have recently started Pilot Accounts	Cover certain components	Have now advanced experience (Monetary accounts)
UAE, Qatar, Kuwait , Saudi Arabia, Sudan, Yemen	X			
Iraq		X		
Lebanon, Syria, Palestine, Oman, Bahrain			X	
Jordan, Egypt				Started a unit for EEA-



EPE for Jordan

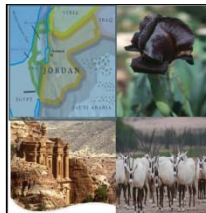
Distr.
LIMITED

E/ESCWA/SD/??/

ORIGINAL: ARABIC



اللجنة الاقتصادية والاجتماعية لغربي آسيا (الإسكوا)



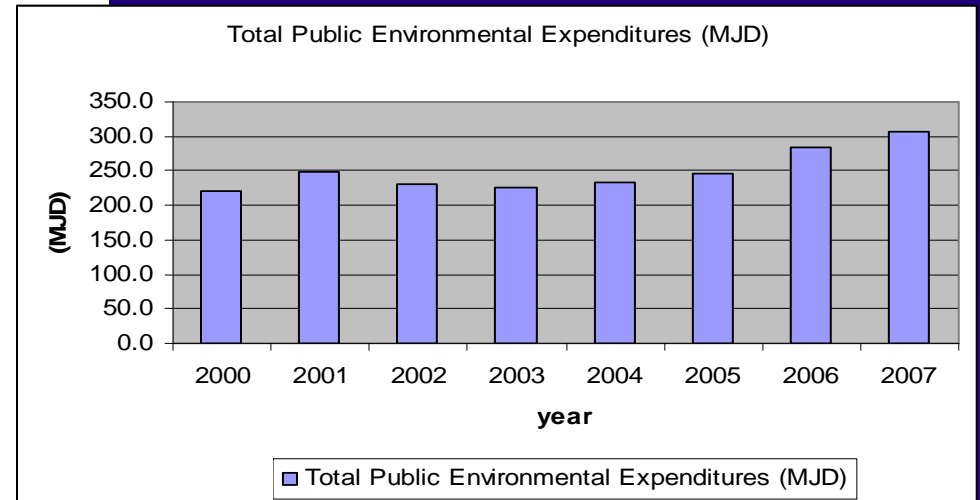
نفقات القطاع العام على البيئة

دراسة حالة: الأردن

Public Environmental Expenditures

Case Study: Jordan

2009



http://css.escwa.org.lb/sd/1097/Env_Exp_Jordan_Ar.pdf



JORDAN SEEAW Physical use table,2007

		Industries (by ISIC categories)					Households	Total
		1	36	37	others	Total		
From the environment	U1 - Total abstraction	506	294	0.0	49.0	849	0.0	849
	a.1- Abstraction for own use	506	0.0	0.0	49.0	555	0.0	555
	a.2- Abstraction for distribution	0.0	294	0.0	0.0	249	0.0	249
	b.1- From water resources:	506	294	0.0	49.0	849	0.0	849
	* Surface water	261	80	0.0	4.0	345	0.0	345
	* Groundwater	245	214	0.0	45.0	504	0.0	504
	* Soil water	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	b.2- From other sources	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	* Collection of precipitation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	* Abstraction from the sea	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Within the economy	U2 - Use of water received from other economic units	91	0.0	113	0.0	202	147	351
	<i>of which:</i> Reused water	91	0.0	0.0	0.0	91	0.0	91
	Wastewater to sewerage	0.0	0.0	113	0.0	113	0.0	113
Total use of water = U1+U2=								1200



JORDAN SEEAW Physical Supply table, 2007

		Industries (by ISIC categories)					Households	Total	
		1	36	37	others	Total			
Within the economy	S1- Supply of water to other economic units	0.0	147	91	23	271	90	351	
	<i>of which:</i> Reused water	91	0.0	0.0	0.0	91	0.0	91	
	Wastewater to sewerage	0.0	0.0	0.0	23	23	90	113	
To the Environment	S2- total returns= (D1+D2)	60	140	6	5	211	0.0	211	
	D1- to water resources	60	140	6	5	211	0.0	211	
	* surface water	5	10	6	5	23	0.0	23	
	* ground water	50	10	0.0	0.0	60	0.0	60	
	* soil water	5	120	0.0	0.0	125	0.0	125	
	D2- to other sources	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total supply of water = S1+S2=									562
Water consumption= total use – total supply									638



Pilot SEEAW Physical Supply, Egypt, 2009 (BCM)

جدول عرض المياه الريادي، مصر، 2009 (مليار متر مكعب)

		Agriculture ISIC 1-3	Industry &services 5-33, 38,39,41- 43,45-99	Electrici ty (only cooling) 35	Electrici ty (hydroel ectric) 35	Public Water Supply 36	Sewerage 37	Total	House holds	of the world	Total	
Within the economy	i. Supply of water to other economic units (i.a+i.b+i.c) <i>of which:</i>	-	0.7	-	-	5.7	-	6.4	3.7		10.1	-1
	i.a Reused water	-		-		-		-			-	-1
	i.b Desalinated water					0.020		-			-	-1
	i.c Wastewater to sewerage		0.7					0.7	3.7		4.4	-1
To the environment	ii. Total returns (ii.a+ii.b)	27.0	-	8.6	187.0	2.5	4.4	229.5	0.4		229.9	-2
	Hydroelectric power generation				187.0			187.0			187.0	
	Irrigation water	12.9						12.9			12.9	
	Mine water							-			-	
	Urban runoff							-			-	
	Cooling water			8.6				8.6			8.6	
	Losses in distribution because of leakages	13.5					2.5				16.0	
	Treated wastewater							4.4			4.4	
	Other							-			-	
											229.5	
ii.a To water resources	27.0	-	8.6	187.0	2.5	4.4	229.5	-		229.5	-2	
ii.a.1 Surface water	12.9		8.6	187.0	1.8	4.4	214.7			214.7	1- -2	
ii.a.2 Groundwater	14.1					0.7	14.8			14.8	2- -2	
ii.a.3 Soil water							-			-	3- -2	
ii.b To other sources (e.g. sea water)	0.0						-	0.4		0.4	()	
Total supply of water (i+ii)		27.0	0.7	8.6	187.0	8.2	4.4	235.9	4.1		240.0	



Hybrid accounts for supply and use of water, Egypt, 2009 (Billions Egyptian Pounds, MCM)

جدول الحسابات المختلطة الريادي لعرض واستخدام المياه ، مصر ، 2009 (مليار متر مكعب)

	Industries (by ISIC categories)							Total industry	Rest of the world	less subsidies on products , trade and transport margins	Final consumption		Capital Formation	Total
	ISIC 1-3	ISIC 5-33, 41-43	ISIC 35		ISIC 36	ISIC 37	ISIC 38,39, 45-99				Households	Government		
			Total	of which: Hydro										
1. Total output and supply (Billions EP)	137.6	749.0	22.1	3.3	1.7	9.0	367.0	1,286.4	363.0	70.0			1,719.4	
<i>of which:</i>														
1.a. Natural water (CPC 1800)	-	-	-	-	1.7	-	-	1.7	-	-0.1			1.6	
1.b. Sewerage services (CPC 941)	-	-	-	-	-	9.0	-	9.0	-	-			9.0	
2. Total intermediate consumption and use (Billions EP)	72.9	419.4	9.9	1.1	1.1	1.7	157.8	664.0	403.0		452.8	53.6	146.0	1,719.4
<i>of which:</i>														
2.a. Natural water (CPC 1800)	-	-	-	-	-	-	-	-	-	-	-	-	-	
2.b. Sewerage services (CPC 941)	-	-	-	-	-	-	-	-	-	-	0.1	-	-	
3. Total value added (gross) (= 1-2) (Billions EP)	64.7	329.5	12.2	1.8	0.6	7.3	209.2	622.4	-				622.4	
4. Gross fixed capital formation (Billions EP)	6.6	65.7	13.1		11.8	10.5	23.7	131.4					131.4	
<i>of which:</i>														
4.a. for water supply		-			11.8	0.0		11.8					11.8	
4.b. for water sanitation		-				10.5								
5. Stocks of fixed assets for water supply (Billions EP)		-			197.1	0.0								
6. Stocks of fixed assets for water sanitation (Billions EP)		-				132.5								
7. Total use of water (Millions m ³)	61.6	1.4	8.6	-	8.2	4.4			-		5.8	-		
7.a. (U1) Total Abstraction	61.6	0.7	8.6	-	8.2	-					-	-		
<i>of which:</i> 7.a.1- Abstraction for own use	-	-	8.6	-	-	-					10.8	-		
7.b. Use of water received from other economic units	-	0.7	0.0	-	-	4.4			-		5.8	-		
8. Total supply of water (Millions m ³)	27.0	0.7	8.6	-	8.2	4.4		235.9	-		4.1	-		
8.a. Supply of water to other economic units	-	0.7	-	-	5.7	-		6.4	-		3.7	-	10.1	



Challenges in SEAA-Implementation in MSs

1. Legislation and Reinforcement
2. Ministries of Finance Role (Accounting requirements for Developing Monetary Accounts, EPE, Taxes and subsidies, Permits and Licenses,
3. Use of common concepts, definitions and classifications within and across countries
4. Quality of data
5. Established sustainable system for national coordination
6. Need for aggregate indicator



Role of Organizations to Implement SEEA

- 1. Awareness raising to the different governmental institutions (high level and technical staff)**
- 2. Additional Funding (World Bank to develop project like COED for MENA)**
- 3. Technical assistance on development and implementation of the SEEA subaccounts according to country's priorities**
- 4. Sharing Data /Questionnaires and verifying and checking data, contacting and following-up with countries fro clarifications and corrections**



Role of Organizations to Implement SEEA

- 5. Mapping of activities and organizing joint trainings and missions on Accounts (training material, bilingual, coordinated assistance)**
- 6. Adding countries concerns and comments in manuals and recommendations**
- 7. Web Portal on Environmental Accounting for each region and sharing lessons learned (ECLAC-ECE-ECA-ESCAP)**



References

- Alfieri, A. 2006. Integrated Environmental and Economic Accounting for Water Resources – SEEAW, UNSD, presentation 22-24 May 2006, Voorburg, Netherlands.
- ESCWA. 2004b. Report, the Statistical Committee on its Sixth Session, Beirut, 6-8 October 2004. E/ESCWA/SCU/2004/ig.1/6.
- ESCWA, 2007. Compendium of Environment Statistics in the ESCWA Region, New York. E/ESCWA/SCU/2007/2.
- ESCWA 2008a. General and Specific Surveys to Compile data on Water Accounts in the Arab Countries.
- ESCWA, 2008b. Final Report of the Joint Sub-Regional Workshop On The System Of Integrated Environmental-Economic Accounting For Water Resources, Amman, 10-13 March 2008. E/ESCWA/SCU/2008/1.
- ESCWA, 2008c. Final report of the Training Session on the System of Environmental-Economic Accounting for Water (SEEAW) for the Arab Gulf Countries, August 25-28, 2008, Beirut, Lebanon. E/ESCWA/SD/2008/2.
- United Nations Department of Economic and Social Affairs (DESA), and United Nations Environment Programme, 2000. Integrated Environmental and Economic Accounting; An Operational Manual, Handbook of National Accounting, Series F, No. 78, New York
- UNSD 2007. System of Environmental-Economic Accounting for Water, Background document, Statistical Commission 38th Session, 2007.
- UN Statistics Division 2008. Global Assessment of Environment Statistics and Environmental-Economic Accounting.
- Vardon, M., 2008. Introduction to the System of Environmental-Economic Accounting for Water, Part II., Training Session on the System of Environmental-Economic Accounting for Water (SEEAW) for the Arab Gulf Countries, August 25-28, 2008, Lebanon.