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REPORT

OF THE JOINT SUB-REGIONAL TRAINING SESSION ON THE SYSTEM OF INTEGRATED ENVIRONMENTAL-ECONOMIC ACCOUNTING FOR WATER RESOURCES AMMAN, 10-13 MARCH 2008

Summary

In collaboration with MEDSTAT II Environment Sector and the United Nations Statistics Division (UNSD) at the Department of Economic and Social Affairs, ESCWA organized the Joint Sub-regional Training Session on the System of Integrated Environmental-Economic Accounting for Water Resources, from 10 to 13 March 2008. The session fell within the framework of the activities of the *Strengthening National Capacities in Environment Statistics, Indicators and Accounts Project (ESIAP)* and was pursuant to the Expert Group Meeting on the Production of Statistics on Natural Resources and Environment held in Cairo from 5 to 7 June 2007. The training session was attended by representatives from National Statistical Offices and water ministries in nine ESCWA member countries, as well as by an expert from the Austrian Federal Environment Agency.

The Session focused on explaining and discussing the basic concepts, definitions, methodologies and classifications used in the System of Environmental and Economic Accounting for Water (SEEAW), which was adopted by the United Nations Statistical Commission as a statistical benchmark in 2007, in the framework of the System of Integrated Environmental and Economic Accounting (SEEA). Hands-on exercises and examples of how to complete in detail standard tables for water supply and use, emission accounts, asset accounts and others were also presented.

Discussions revolved around ways to collect data related to the SEEAW and on the difficulties faced by those producing these data. Participants unanimously agreed on the need for both coordination between the parties involved in producing environmental and water data and National Statistical Offices, and for the standardization of concepts and methodologies in order to prepare integrated environmental and economic accounts.

The discussions culminated in the drafting of a set of recommendations addressed to both member countries and ESCWA aimed at enhancing the quality of water statistics so as to produce standard tables in SEEAW on which decision makers in water resources management could rely in order to achieve economic growth that would ensure sustainable development.

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Introduction

1. In collaboration with MEDSTAT II Environment Sector and the United Nations Statistics Division (UNSD) at the Department of Economic and Social Affairs, ESCWA organized the Joint Sub-regional Training Session on the System of Environmental-Economic Accounting for Water (SEEAW) from 10 to 13 March 2008. The training session was attended by representatives from National Statistical Offices and water ministries in nine ESCWA member countries, as well as by an expert from the Austrian Federal Environment Agency.
2. The training session aimed to achieve the following: (a) provide theoretical and practical knowledge about water statistics collection and the appropriate use of SEEAW; (b) provide a framework and methodologies for the SEEAW; (c) enhance national statistical capacities and sub-regional networks and (d) make recommendations in accordance with regional priorities, in order to implement the SEEAW.

I. RECOMMENDATIONS

3. At the end of the training session, the following recommendations were addressed to both member countries and ESCWA, in order to enhance the quality of water statistics and produce the standard SEEAW tables. The objective was to enable decision makers in water resources management to rely on water accounts tables in order to achieve economic growth that would ensure sustainable development.

A. RECOMMENDATIONS TO ESCWA MEMBER COUNTRIES

4. Participants addressed the following recommendations to member countries:
 - (a) Enhance coordination between national environment and water authorities, national statistical offices and stakeholders at all administrative levels, through the creation of a high-level committee to identify needs, as well as a coordinating committee composed of professionals representing all concerned bodies. A specific work programme is to be devised for the committee as well as a mechanism for cooperation and for a rotating chairmanship;
 - (b) Identify and collect the available data on water accounts, carry out any surveys necessary to update information and list the data in the integrated databases. Also take note of water flows and draw up related charts in order to prepare the water accounts;
 - (c) Exchange expertise and experience among member countries, especially the experience of Jordan in environmental surveys;
 - (d) Build all human and financial resource capacities in a sustainable manner in order to produce water accounts;
 - (e) Harmonize the standard SEEAW tables so as to take regional specificities into account, by doing the following:
 - (i) Classify underground water resources as renewable or non-renewable resources;
 - (ii) Classify water supplies and uses as either cooling or mining water;
 - (iii) Classify industries in the standard SEEAW tables as follows: extraction and manufacturing industries, hotels, restaurants and construction.

B. RECOMMENDATIONS TO ESCWA, UNSD AND MEDSTAT

5. Participants recommended ESCWA, UNSD and MEDSTAT to do the following:
 - (a) Provide instructions with regard to the definition of freshwater, while taking the relevant specificities of the region into consideration;

- (b) Explain how to list the value of the assets used in multiple activities, and classify the units that produce multiple material;
- (c) Prepare documents about environmental and water accounts in Arabic;
- (d) Harmonize, in particular, water questionnaires with environmental accounting tables, in order to facilitate accounting processes, and draw the related diagrams;
- (e) Build national capacities, in coordination with the regional and international organizations dealing with environmental and water accounting, by conducting training workshops and consultative missions and by creating an e-forum;
- (f) Support the issue of environmental and water accounts at the highest possible levels such as ESCWA, the Committee on Water Resources at ESCWA and the Euro-Med Ministerial Conference on the Environment;
- (g) Provide necessary support to Palestine and Iraq in the preparation of water accounts;
- (h) Clarify the codes related to flows and reserves in the system of water accounts and define the links between the different accounts.

II. DISCUSSION TOPICS

6. All the presentations, documents and exercises related to this training session are now posted online at www.esiap.org.lb. The session included seven meetings that addressed the following topics:

A. SEEAW AND THE INTEGRATED WATER RESOURCE MANAGEMENT

- 7. At the first session, the ESCWA secretariat and the UNSD representatives made a presentation on the SEEAW and its uses in support of Integrated Water Resource Management as well as of water policies. The presentations contained information on basic concepts, definitions and classifications used in the SEEAW. It addressed, in particular, basic concepts relating to the national accounting system, supply and use tables, and international classifications that are particularly relevant to the SEEAW.
- 8. A number of papers were presented during the meeting, including a presentation by the United Nations Statistics Division on the comprehensive framework of the SEEAW. The presentation aimed to show how all the accounts that would be discussed in detail in subsequent meetings complemented one another. The expert from the Austrian Federal Environment Agency made a comparison between the questionnaire of UNSD and the United Nations Environment Programme and the questionnaire of the Statistical Office of the European Communities and the Organisation for Economic Co-operation and Development with regard to water statistics and their relevance to the environmental accounting system tables. ESCWA also presented the outcomes of the Global Assessment of Water Statistics and Water Accounts for the ESCWA countries.
- 9. A discussion was held on a number of topics, including: clarification of the definition of constructions in the water accounting system, the importance not only of water scarcity but of water pollution in the region, and the problem of water being regarded as a commodity in ESCWA countries. Participants commended the cooperation between ESCWA and the MEDSTAT programme which aims to unify efforts in the area of environmental accounting. They also commended the presence of representatives from national statistics offices and water ministries in all the participating countries, which contributes to activating dialogue and the exchange of information between data producers within the same country. The representative of Amman underlined the difficulty of measuring water used in desalination and cooling, water in reservoirs and water used in pumping oil.

B. PHYSICAL WATER SUPPLY AND USE TABLES

10. The second session was mainly concerned with the physical water supply and use tables. Accounting concepts, definitions and rules as well as the indicators that can be drawn from these tables were presented. Subsequently, a practical workshop was held on the physical water supply and use tables for water collection, and related problems. The UNSD representative presented three models showing the preparation of water accounts in the Dominican Republic, Jordan and South Africa, and outlined the steps taken by these countries in order to prepare the accounts. MEDSTAT made a presentation on the experience of Tunisia.
11. Participants from Iraq and Oman made presentations on water issues and needs at the regional level. Iraq had recently published its Environmental Statistics Report 2006, and prepared statistics on water resources and their uses in Iraq. Indicators and tables on water resources in Oman were also presented.

C. EMISSION ACCOUNTS

12. The third session addressed emission accounts. A presentation was made on accounting concepts, definitions and rules as well as on emission accounts indicators. Working group meetings were held afterwards on the standardization of water emission accounts and related problems. The objective of the working groups established during the session was to measure emission accounts by using the data provided by the participants on the SEEAW and the Integrated Water Resources Management (IWRM). They also aimed to adapt the data so as to reflect data availability and policy interests. Participants discussed listing the concentration of pollutants in the tables instead of their quantities.
13. An overview of the national experiences of Jordan, Palestine and Yemen was presented. In Jordan, the Department of Statistics has drawn up tables, in cooperation with the Ministry of Water and Irrigation, on the supply and use of water resources in Jordan in 2007; these accounts will be published as a pilot study in 2008. Participants requested that Jordan's experience in this regard be profited from. Likewise, Palestine has produced detailed tables on water use. The Yemen representative made a detailed presentation on the situation of water resources in Yemen and the importance of statistics and water accounts for the improvement of water management. The representatives of Bahrain presented tables they had prepared during the meeting on the supply and use of water resources in Bahrain, as well as charts representing the supply and use of water within and between the environment and the economy.

D. MIXED ECONOMIC ACCOUNTS

14. During the fourth session, discussions focused on the mixed economic accounts. A presentation was made on accounting concepts, definitions, rules and indicators. The objective of the working groups was to define mixed economic accounts, by using the data provided by the participants and adapting it so as to reflect data availability and public policy interests. Participants found this part of the accounts very interesting, but it was very difficult to prepare the tables, especially given that forms and information on water charges and infrastructure-related costs were not yet professionally prepared.

E. ASSET ACCOUNTS

15. Discussions during the fifth session focused on asset accounts. A presentation was made on accounting concepts, definitions, rules and indicators. Important points were raised with regard to the definition of underground water and its classification either as renewable or non-renewable, as well as the definition of freshwater both in the world and in the region. Participants conducted exercises on asset tables, and a discussion was held on the related difficulties and solutions.

F. OTHER SUPPLEMENTARY SEEAW AND IWRM TABLES

16. During the sixth session, supplementary SEEAW and IWRM tables were presented, highlighting the quality of accounts, the evaluation of water resources and the development of water indicators.

G. CRITIQUE OF THE SEEAW AND THE IWRM PLAN

17. During the seventh and final session, a discussion was held on the major outcomes of the session and the possibility for ESCWA member countries to benefit from them. As a result of the four-day discussions, a set of recommendations was addressed to both member countries and the ESCWA secretariat, which aimed to enhance the quality of environmental and water statistics and the production of integrated environmental and economic accounts for water resources.

18. Participants undertook a critical review of the SEEAW and IWRM plan, and summarized the conclusions of the working groups. Discussions were held on ways of moving forward in the implementation of both the SEEAW and the IWRM process in participating countries. Participants commended the organization of the session and the availability of documents and exercises as well as of the computers that were used for practical work and table preparation. They also commended the quality of the presentations made by the participating experts and the breadth of knowledge they demonstrated.

III. ORGANIZATION OF THE SESSION

A. VENUE AND DATE

19. The Joint Sub-regional Training Session on SEEAW was held at the Radisson SAS Hotel in Amman, from 10 to 13 March 2008.

B. OPENING

20. Dr. Ghazy Shbeikat, general director of the Department of Statistics in Jordan, inaugurated the training session meetings. He delivered an address in which he commended the relevance of the session and thanked ESCWA for its initiative.

21. Ms. Cecile Roddier-Quefelec, expert in MEDSTAT II Environment Sector, delivered the next address, in which she commended the cooperation between MEDSTAT, on the one hand, and ESCWA and UNSD on the other hand. She underlined the importance of this session, not only for achieving the highest degree of cost-effectiveness, but also because the session itself was a great opportunity to enhance regional and sub-regional cooperation, as well as for networking.

22. The representative of the ESCWA secretariat, Ms. Wafa AboulHosn, also addressed the session, conveying the greetings of the secretariat to the audience, and commending the cooperation between ESCWA, on the one hand, and UNSD and MEDSTAT and the member countries, on the other. She thanked Mr. Shbeikat for his efforts in making this session a success. Ms. AboulHosn underlined the importance of environmental and water statistics, as well as of integrated environmental and water accounts, which are indispensable for the establishment of a comprehensive framework for environmental and water policies and systems in the countries of the region, especially in light of the challenges facing the ESCWA region as one rich in energy resources but poor in freshwater resources.

23. Mr. Michael Vardon, the UNSD representative, gave an address in which he emphasized the importance of cooperation with ESCWA and the relevance of the training session. He also highlighted the tasks undertaken by his Division in order to prepare the guide on integrated environmental and economic accounts and to assist member countries in capacity-building.

C. PARTICIPANTS

24. The meeting was attended by 29 participants, including 24 representing ESCWA member countries (14 men and 10 women), and five representing the international organizations. The list of participants constitutes the first annex of this report.

Annex I*

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Annex II

ASSESSMENT OF THE TRAINING SESSION

Questionnaire

Number of responses: 21

**Training Session on the System of Environmental-Economic
Accounting for Water (SEEAW)
Amman, 10-13 March 2008**

A. General assessment						
1. Was the session useful in providing information with regard to:	a. Producing statistical data	yes <input type="checkbox"/>	no <input type="checkbox"/>			
	b. Analysing statistical data	yes <input type="checkbox"/>	no <input type="checkbox"/>			
	c. Asseminating statistical data	yes <input type="checkbox"/>	no <input type="checkbox"/>			

Please assess the following:	Very good	good	acceptable	weak	Very weak	N/A
B. Content and organization of the session						
2. Quality of the material	12	9				
3. Quality of the presentations	14	8				
4. Was there sufficient time to discuss and participate?	5	10	5	1		
5. Was there some balance between the different topics?	4	16				
6. The relevance of each meeting:						
Meeting 1: introduction and preface	8	12				
Meeting 1.1: Conceptual framework	7	14				
Meeting 2: supply and use tables	8	12	1			
Meeting 3: emission accounts	8	10	2			
Meeting 4: mixed economic accounts	6	14	1			
Meeting 5: asset accounts	7	14				
7. Clarity of outcomes after each meeting	6	12	1			
8. Achievement of the objectives	3	13	3			
9. Overall evaluation of the session	5	15				
10. What is the most important element in the session? <ul style="list-style-type: none"> - Financial offer and use tables; - Emission accounts; - Asset accounts; - Mixed economic accounts; - Water quality; - Preparation of the supply and use tables; - Case studies of a number of countries; - Exercises; - Quality of training material; - Understanding the objective of water accounts and System of Environmental and Economic Accounting for Water. 						

<p>11. What is the least useful element of the session?</p> <ul style="list-style-type: none"> - Emission accounts; - Mixed economic accounts (need more clarification with regard to accounting methods). <p>12. Any comments and suggestions that aim to improve the content of the training session?</p> <ul style="list-style-type: none"> - More time; - More examples; - More teamwork; - More trainings; - Automatically add accounting methods to tables and provide ways to verify the information; - Provide a higher number of trainers (4-6); - Receive the proposals and organize them in the agenda before the inauguration. 						
C. Organization of the training session						
13. Appropriate timing to distribute invitations/the timetable/the training material	6	8	1			
14. Comfort and travel time/DSA arrangements	5	7	3			
15. Duration	6	8	6			
16. Quality of the location	9	8	3			
17. Quality of interpretation	7	9	3			
18. Overall planning and organization	11	5	4			
<p>19. Any comments and suggestions to improve the organization of the training session?</p> <p>We expect Arabic to be used more frequently; We believe that working hours are too long; We suggest the possibility for participants from the host country to receive DSA.</p>						