

**ECONOMIC AND SOCIAL  
COUNCIL**

Distr.  
LIMITED  
E/ESCWA/SD/2009/WG.4/5  
10 December 2009  
ORIGINAL: ENGLISH

**Economic and Social Commission for Western Asia (ESCWA)**

**REPORT**

**OF THE EXPERT GROUP MEETING ON ENVIRONMENTAL ECONOMIC  
ACCOUNTING FOR THE ESCWA REGION  
BEIRUT, 14-16 OCTOBER 2009**

**Summary**

The Economic and Social Commission for Western Asia (ESCWA) held an expert group meeting entitled *Environmental Economic Accounting for the ESCWA Region* in Beirut on 14-16 October 2009. The meeting was held to discuss the publication *Framework for Environmental Economic Accounting in the ESCWA Region*, prepared by ESCWA in 2009, which led to an implementation programme for the System of Integrated Environmental and Economic Accounting (SEEA) in member countries. The meeting was attended by 27 participants, representing ESCWA member countries, non-ESCWA countries, and regional and international organizations.

Discussions focused on the SEEA framework, the SEEA for water, sub accounts of priority, environmental protection expenditure, cost of environmental degradation, and experience in these fields at the country and regional level. They concluded with a set of recommendations addressed to ESCWA member countries, the Commission, the United Nations Statistics Division (UNSD), the United Nations Environment Programme (UNEP) and the League of Arab States, with the aim of implementing SEEA in all ESCWA member countries.

## CONTENTS

	<i>Paragraphs</i>	<i>Page</i>
Introduction .....	1-4	3
<i>Chapter</i>		
<b>I. DISCUSSION TOPICS <a href="#">Recom</a></b> .....	5-42	3
A. Framework for Integrated Environmental and Economic Accounting (SEEA) .....	6-10	3
B. SEEA for ESCWA member countries: sub-accounts of priority .....	11-15	4
C. Environmental protection expenditure .....	16-21	5
D. Regional and country experience .....	22-27	6
E. Regional agenda and recommendations .....	28-42	6
<b>II. RECOMMENDATIONS</b> .....	43	9
A. Recommendations for improving environment and water accounts .....		9
B. Recommendations for environmental public expenditure .....		11
<b>III. ORGANIZATION OF THE MEETING</b> .....	44-48	11
A. Venue and date .....	44	11
B. Opening of the meeting .....	45-47	11
C. Participants .....	48	12

## ANNEXES

I. Work plan for ESCWA countries .....	13
II. List of participants .....	16
III. Evaluation of the meeting .....	19

## Introduction

1. The Economic and Social Commission for Western Asia (ESCWA) held an expert group meeting entitled *Environmental Economic Accounting for the ESCWA Region* in Beirut on 14-16 October 2009. The meeting was attended by 27 participants from national statistical offices, environment ministries and water ministries from eight ESCWA member countries, experts from Chile and Slovenia, and representatives from the League of Arab States, African Centre for Statistics at the United Nations Economic Commission for Africa (ECA), United Nations Environment Programme Regional Office for West Asia (UNEP-ROA), United Nations Statistics Division (UNSD) and the World Bank.
2. The System of Integrated Environmental and Economic Accounting (SEEA) is a framework that integrates environmental information into economic development and will become an international standard by 2012. During the meeting, experts discussed the publication *Framework for Environmental Economic Accounting in the ESCWA Region*, prepared by ESCWA in 2009 with the aim of developing a regional implementation programme. The framework tailors the SEEA to the priorities and specificities of ESCWA member countries. Implementation of the SEEA was acknowledged by the participants of the meeting to be of vital importance to the region.
3. Discussions focused on the SEEA framework, the SEEA for water, sub accounts of priority, environmental protection expenditure, cost of environmental degradation and experience in these fields at the country and regional level. They concluded with a set of recommendations addressed to each ESCWA member country, the Commission, the United Nations Statistics Division (UNSD), the United Nations Environment Programme (UNEP) and the League of Arab States, with the aim of implementing SEEA in all ESCWA member countries.
4. Participants agreed that accounts and statistics related to water remain the highest priority for the region, given the scarcity of the resource across the region and the need to manage it efficiently. Also considered important were environmental protection expenditure accounts, in particular accounts and statistics related to water, energy, emissions and waste.

## I. DISCUSSION TOPICS

5. The meeting was divided into six sessions. The presentations and documents referred to in this section are available on the ESCWA website at <http://www.escwa.un.org>.

### A. FRAMEWORK FOR INTEGRATED ENVIRONMENTAL AND ECONOMIC ACCOUNTING (SEEA)

6. The first session started with an overview of the progress of SEEA in the ESCWA region. This included an overview of pilot SEEA tables in a number of ESCWA member countries, energy accounts and environmental protection expenditure, and a variety of activities undertaken by ESCWA in recent years within the framework of the Strengthening National Capacities in Environment Statistics, Indicators and Accounts Project.
7. The second presentation outlined the need for environmental economic accounting in the ESCWA region, the background to and functions of the SEEA framework, and introduced an assessment of the ways in which environment statistics and environmental economic accounting complement each other. The relationship between the SEEA and policymaking was also highlighted, as were a number of ways in which the SEEA can be used as a tool to assist the policymaking process.
8. The need for political involvement in support of this issue was emphasized by participants. The representative of the League of Arab States discussed proposals to establish an Arab team for environmental information, with a view to using the framework in the further development of environmental and sustainable development indicators for the region. He also underlined the importance of ensuring the

inclusion of the issue in the agenda of the Council of Arab Ministers Responsible for the Environment. The matter of coordination between academic institutes on the one hand and NSOs or environmental ministries on the other hand in the application of the SEEA was also raised. ESCWA explained the difficulty of obtaining funding for such coordination and suggested that the problem could be solved if UNSD were to provide training for NSO directors. The issue of coordination and cooperation between ESCWA member countries with a view to strengthening statistical capacities was also discussed.

9. The UNSD representative presented a brief summary of the SEEA, highlighting its policy relevance; explaining the relationship between environmental-economic accounting, basic statistics and indicators; presenting the modules and features of the system; outlining the principal issues under discussion as part of the revision of the system; and setting out the timeline for finalizing the revision and adopting the SEEA as an international standard. The representative from Lebanon asked about the tourism satellite account (TSA) and its relation to water accounts and the climate change system. The UNSD representative explained that the SEEA provides a great deal of information that can inform climate change policies. Climate change is a cross-cutting issue and different modules of the accounts can inform different policies. Its strength over other frameworks is that it links environmental information to economic information, thus allowing for an impact analysis of, for example, economic instruments on the climate. With regard to tourism, a number of countries have used the SEEA to analyse the impact of tourism on the environment, which can easily be done by linking the SEEA and TSAs.

10. The issue of applying the recommendations of the United Nations Statistical Commission and the extent to which these are obligatory was also raised. The UNSD representative explained that the Statistical Commission can only encourage countries to implement the standards and recommendations. However, while there is no legal obligation, there is a strong incentive for countries to implement and include them in the regular programme of work of their NSOs. Given the length and complexity of the recommendations, the process will take time. Further questioning included an enquiry from the representative from Palestine as to the calculation of indicators from the standard tables on water accounts, and a participant from Egypt outlined the problems that the country has on certain water indicators and asked for clarification on cooperation between the United Nations regional commissions and the UNSD on environmental accounting.

#### B. SEEA FOR ESCWA MEMBER COUNTRIES: SUB-ACCOUNTS OF PRIORITY

11. The second session started with a brief summary of the process of water accounts in the ESCWA region. Examples of the SEEAW training exercises in which ESCWA member country representatives had participated in August 2008 were shared and a number of SEEAW pilot studies in member countries were presented, including lessons learned and priority activities necessary for improving the implementation of SEEAW. A regional agenda for the development of water and environment accounts was also introduced, along with a suggested implementation plan.

12. The UNSD expert described the implementation strategy for the SEEAW, which was presented at the United Nations Statistical Commission and the United Nations Committee of Experts on Environmental-Economic Accounting. The strategy includes the preparation of IRWS and the Global Assessment of Water Statistics and Water Accounts. Five key issues were identified as central to the way forward: promotion, training a network of experts, certification, international data collection and availability, and regional and international coordination.

13. Experts from ESCWA highlighted the significance of energy statistics, the integrated environmental and economic accounting system, and the way in which such accounts should be used. The discussion which followed focused on a number of issues, including the need for coordination between donors to prevent overlapping of similar activities; the need for monetary accounts; the need for coordination between the political agenda and national agenda requirements for environmental priorities; availability of water basin data for the Litani river in Lebanon; and rationalization of the use of water in the agricultural sector.

14. The representative from Jordan raised the issue of agricultural water used as biofuel and asked how it should be accounted for in the SEEA tables. The guidance was that such biofuel should be included as an agricultural product for energy purposes. A follow-up observation was made regarding the agricultural input to gross domestic product (GDP) (some 2 per cent) and the high water consumption of this sector, which represents more than 50 per cent of employed labour.

15. The expert from the University of Alexandria asked about the methodologies used for data collection. ESCWA and UNSD explained that the type of data collection method employed depends on the particular country. UNSD is currently compiling guidance on data collection and compilation for the IRWS. A number of participants suggested the need to involve policymakers in the SEEAW and to integrate data item codes for the UNSD Questionnaire on Environment Statistics for the 2012 session so that they can be aligned with the international recommendations for water.

### C. ENVIRONMENTAL PROTECTION EXPENDITURE

16. The third session started with a brief presentation on land and ecosystems accounts and soil accounts. The representative from Jordan asked about high initial costs of renewable energy and was assured that the cost is included in the tables. The representative from Egypt recommended that fixed and running costs also be included in the SEEA tables.

17. The expert from the Statistical Office of Slovenia introduced a presentation on environmental protection expenditure in Slovenia, highlighting the collection of related data for this purpose and drawing a comparison between the Environmental Protection Expenditure Account and the Joint Questionnaire for Environmental Protection Expenditures. She also explained the processing and dissemination of data, and the documents which are legally required to be submitted to international organizations. She concluded by outlining the SEEA accounts that have already been developed in countries of the European Union and those which are ongoing in Slovenia.

18. The participants discussed the importance of training national focal points, and expressed concern about the importance of retaining in-house expertise and the need for well-planned surveys. The issue of publishing import and export lists of environment-related products was raised. It was argued that such data are published both for a specific purpose and to inform policy needs in the formulation of new environmental policies. Eurostat has produced a manual on environmental products and the League of Arab States has published a list of environmental products in the Arab region for 2007.

19. The representative of Jordan, who also an expert in environmental public expenditure, presented a detailed case study on public environmental expenditure in Jordan. The issue of the enforcement of environmental policies and environmental taxes in Jordan was raised and the questioner was assured that the national environmental policy, based on the principle of “the polluter pays”, is stringently applied.

20. The World Bank representative discussed environmental degradation, remedial and averted cost in coastal zones in Northern Lebanon. He explained the objective of the Cost of Environmental Degradation/Environmental Degradation, Remedial and Averted Cost programme (COED/EDRAC), the environmental categories covered, its methodologies and data sources, results and result analysis. The presentation concluded with a Lebanese case study. In response to a question about the methodologies, surveys and techniques used for the study and their availability, he indicated that such data were available on the World Bank website for the project and said that the benefit transfer studies method (an approach in which existing studies are applied to a new case study as it is being developed) was not used in the Lebanese case study.

21. The UNSD representative warned against comparing environmental degradation costs which do not follow the SNA valuation principles with, for example, GDP, as this may create confusion, since the numerator and denominator of the indicator cover different items (for example, consumer surplus). The

discussion which followed revolved around the COED, which is useful in policymaking, as it shows the cost of environmental degradation as a percentage of GDP. Genuine savings calculated by the COED method, on the other hand, are important in deriving macro-economic indicators.

#### D. REGIONAL AND COUNTRY EXPERIENCE

22. The fourth session focused on country papers on environment statistics presented by country representatives. The representative of the ECA African Centre for Statistics gave a brief introduction to the Centre, covering its mandate, statistical programmes and works on climate change statistics, and concluded by outlining the steps required for further progress. The representative from Chile discussed environmental accounts in Chile, the environmental statistical system used, data collection procedures and their concomitant problems. The UNEP representative gave a brief presentation on the environmental information system and the process of information exchange and support at the national, regional and global levels; he also explained the green economy concept and outlined the Green Economy Initiative adopted by UNEP.

23. During a discussion on the ways in which the SEEA framework can be used as a tool through which the environment can contribute to the economy, a number of questions were raised, including how to identify green output that originates from brown input. Another problem was raised regarding COED methods in comparing countries, as a result of the current prices/constant prices challenge.

24. The representative from the Egyptian Environmental Affairs Agency outlined the legal framework for environmental policy, the concept of environmental accounting, green accounting, implementation difficulties, challenges and costs. The representative from the University of Alexandria gave a presentation on the objectives of building a system of integrated environmental and economic accounting for the ESCWA region and the application of the resulting SEEA in the current, intermediate and final phases.

25. Participants discussed the ways in which accounts can be connected and related to each other and indicators derived from them. The UNSD representative explained that such indicators as water and energy intensity are derived from hybrid accounts, which are a combination of monetary accounts and physical accounts for water and energy.

26. The representatives from the Lebanese Central Administration of Statistics and the Lebanese Ministry of Environment discussed the cost of environmental degradation, public expenditure reviews, the types of accounts that can be applied in Lebanon and their limitations, and dealt with questions on the relationship between climate change and the SEEA. They highlighted the difficulty of gathering data at the national level and the problems posed by the absence of a metering system to simplify the measurement of water consumption and supply.

27. The representative from the United Arab Emirates discussed the efforts made by the Ministry of Environment and Water to support environment accounts and other measures taken to protect the environment. The availability of data at the emirate level and the efforts made by the Government to gather and publish data at the national level were also outlined. Finally, the representative from Yemen drew the session to a close with a presentation encompassing both the current status of environmental statistics and indicators, and the investments that are being made to improve such statistics in the future.

#### E. REGIONAL AGENDA AND RECOMMENDATIONS

28. During the fifth session, two presentations were made prior to the group discussions. The first focused on the regional agenda for environmental accounting systems and recommendations for improving environment statistics in the ESCWA region. The UNSD representative highlighted the importance of adopting statistical standards; focusing on a specific set of SEEAW tables and creating a corresponding work plan; institutionalizing the SEEAW; supporting NSOs in the region and raising their awareness of environmental accounting systems; identifying available data, definitions and classifications to help improve

data quality; and assessing advances in available data in each country and the ways in which member countries can cooperate to help those which are less advanced in the process.

29. The second presentation focused on recommendations for environmental protection expenditure and environmental economic accounting. The discussion that followed covered issues related to linking expenditure to the water sector in order to derive the trend of water management; applying environmental and pollution taxes; encouraging bilateral cooperation between national offices and regional offices on the one hand and international NGOs on the other hand; the need within countries to advocate for the introduction of the SEEAW; and the role that can be played by internationally-funded projects.

30. The participants subsequently formed two groups to discuss the following questions relating to the development of environmental accounts in the region. Group one discussed questions 1 to 4 and group two discussed questions 5-8.

1. How can countries which have prepared pilot accounts (physical tables) (Bahrain, Egypt and Jordan) build on these with monetary and emissions accounts? What sort of timeline should be envisaged for this process?
2. How can countries which are still in the process of developing water accounts (Lebanon and the Syrian Arab Republic) be assisted to reach the stage of piloting water accounts? How can countries still lack a basis for water accounts initiate the process of developing such accounts? What is needed for this to happen? What sort of timeline should be envisaged for this process?
3. How should countries best focus on environmental protection expenditures related to water and sanitation and expand these into other environmental domains that feed into the water accounts?
4. Can work be started on energy accounts (stocks, flows and energy-related emissions)? Jordan could use its energy balance to prepare a pilot energy account in coordination with ministries for energy.
5. Is the issue of waste accounts one that should be added to the priorities of sub-accounts?
6. Can the cost of environmental degradation be accommodated within the context of the SEEA?
7. In the long term, how can the SEEA help in policymaking and what is needed for its implementation?
8. What can ESCWA, UNSD and the League of Arab States do to put environmental accounting on the agenda of ministers of environment and water and introduce it into NSO programmes?

31. Regarding the first question, on how countries which have prepared pilot (physical tables) (Bahrain, Egypt and Jordan) could build on those with monetary and emissions accounts, the representative from Bahrain indicated that no problems are anticipated in preparing pilot accounts. Water metering and charging could be made available as a complement to the physical accounts in order to produce monetary accounts. He also indicated that emissions accounts are available, meaning that physical, monetary and emission accounts could be prepared for a comprehensive pilot water account. The representative from Jordan said that physical accounts for water are already available (for example, quantities and uses) and emissions data are available through estimation. All that remains, therefore, is to monetize these flows, which, given that the country has already conducted a country environmental analysis (CEA), should mean that monetary accounts should be achievable within one year.

32. In response to the second question, as to how countries which are still in the process of developing water accounts (Lebanon and the Syrian Arab Republic) can be assisted to reach the piloting stage, the representative from Lebanon said that a CEA was started one year ago. However, lack of data availability and problems with dissemination, coupled with the suspect quality of the data collected and a lack of

cooperation between ministries, means that there remains an urgent need for good data management. In the particular case of difficulties in data flow between administrative sources, the establishment of interinstitutional agreements was proposed.

33. The discussion group recommended that the Ministry of Environment should be the primary source of information, since it is most directly involved in water issues. It was also recommended that a SEEA committee be set up with a focal point from each ministry and that the sharing of information should be strongly encouraged. It was noted that not all water accounts could be completed, given not only that the technical means to collect water use and groundwater abstraction data are lacking, but also that many water usage and abstraction activities are illegal, and such users would not disclose their actual water usage. In view of these limiting factors, it is difficult to plot a timeline for such countries as Lebanon and the Syrian Arab Republic to complete pilot accounts and, *a fortiori*, for countries that at present do not even have a basis for water accounts to start developing them.

34. As to the third question, on environmental protection expenditure relating to water and sanitation and how this could initially be fed into water accounts, then expanded to environmental domains, the representative from Lebanon noted that data was only available for public, not private, expenditure, so the focus should be on public expenditure first, before being expanded to private expenditure. The representative from Jordan agreed that it made sense to start with Government expenditure and then expand to other sectors. Pointing out that domestic industry in Jordan already pays for pollution abatement costs, he also recommended that expansion should start with water and wastewater, then extend to sectors outside Government and industry, before finally moving to other domains.

35. In response to the fourth question, as to whether ESCWA member countries could start developing energy accounts (stocks, flows and energy-related emissions), and whether Jordan could use its energy balance to prepare a pilot energy account in coordination with the Ministry of Energy, the representative from Jordan said that the energy balance is already available from the Ministry of Energy and that SNA tables can be used to disaggregate this balance by means of bridge tables. Egypt has also started to prepare energy balances.

36. The representative from Lebanon said that the country is currently only in a position to start partial stock accounts. She pointed out that Electricité du Liban publishes electricity production figures, although these are not broken down by economic activity. In response to a request to publish energy figures, the Ministry of Energy only provided fuel inventories for 11-12 petroleum companies and it is clear that significant additional work is required to ensure that energy balances can be estimated fully and accurately.

37. On the fifth question, as to whether the issue of waste accounts is one that should be added to the priority sub-accounts, all participants agreed on its central importance and believed it should figure prominently on the priority list. It was suggested that questionnaires should be designed centrally for use by municipalities, households, hospitals and industry, bearing in mind that data are needed on all types of waste (solid, gas and liquid).

38. As to the sixth question, on the cost of environmental degradation could be done within the context of SEEA, the consensus was that SEEA should provide the basic statistics describing the annual quantitative and qualitative deterioration in the environment required for other specialists (such as economists).

1. Can the cost of environmental degradation be accommodated within the context of the SEEA?

39. Regarding the seventh question, as to the needs of the SEEA and how it would help in policymaking in the longer term, participants agreed that it could help to identify changing priorities and could be useful in developing an index or catalogue detailing the various sources of different types of data. Additionally, it could provide training for staff involved in data collection and encourage stakeholders to improve the quality of statistics and their disaggregation, ensuring that all types of data are available for the design of long-term



strategy. It could assist in enhancing the capacity of policymakers to interpret the statistics used within the policymaking process. The data in question are not only related to stocks and flows of natural resources, but also include statistics on investments that enhance human resource productivity. The system would, however, need to be sufficiently flexible for new types of information to be added as needs changed over time.

40. Finally, regarding the eighth question, as to what ESCWA, UNSD and the League of Arab States could do to put environmental accounting on the agenda of ministers of environment and water and introduce it into NSO programmes, it was suggested that part of the role of the focal point group could be to raise such issues to the officials and ministers concerned. It was argued that the League of Arab States could play a central role in this regard by raising the issue with the partners involved in environmental information and sustainable development indicators during its forthcoming meeting in December 2009.

41. Following the presentation by the first group, a discussion took place regarding a work plan to be prepared by ESCWA for circulation to member countries for comment and approval. Such a plan would include a timeline for feedback and approval, set out short-term and long-term actions on a multilateral level and identify those countries that are advanced in developing *pilot accounts*.

42. After the presentation by the second group, a number of points were raised; these included the preparation of a step-by-step glossary on how to apply the SEEA on the national level; the importance of waste accounts and how countries could develop them with donor funding, identifying primary policy demands and relating them to climate change; the need for energy and air accounts to fulfil climate change data requirements; linking statistics to policy and creating an environmental strategy that constitutes a useful tool at the national level; accepting that, in the short term at least, data quality is not universally reliable; and raising the profile of the SEEA tool and advocating for its implementation.

## II. RECOMMENDATIONS

43. A set of recommendations was proposed for developing and improving environmental accounts in the ESCWA region, in particular water accounts and environmental protection expenditure accounts. Countries which have produced pilot physical water accounts (including Bahrain, Jordan and Oman) were encouraged to complement those with monetary and emissions accounts. Other countries were encouraged to start implementing pilot accounts. The representative of the League of Arab States agreed to include the SEEAW (SEEA for water) on the agenda of the next meeting of the of Arab Water Ministers Council and the SEEA on the agenda of the Council of Arab Ministers Responsible for the Environment. ESCWA and UNSD were invited to assist countries with SEEA implementation, both for national statistical offices (NSOs) and relevant ministries. It was suggested that SEEA implementation be presented to the ESCWA Statistical Committee as a complement to the implementation of the System of National Accounts (SNA) 2008 in member countries. ESCWA and UNSD were also requested to assist countries in developing a staggered work programme which would not only include a variety of activities, depending on the stage of statistical development, but also facilitate South-South cooperation. The implementation programme should focus on water, energy, land and waste accounts. UNSD will provide countries with training materials on water statistics and accounting, technical material on energy accounts, and provide technical support through international seminars.

### A. RECOMMENDATIONS FOR IMPROVING ENVIRONMENT AND WATER ACCOUNTS

#### 1. *Recommendations for ESCWA, UNSD, UNEP and the League of Arab States*

(a) Promote the SEEA at ministerial level, including adding the SEEAW to the agenda of the Arab Water Ministers Council and promoting the SEEA to the Council of Arab Ministers Responsible for the Environment in 2010 through coordination with the League of Arab States;

(b) Encourage countries which have produced pilot physical water accounts (such as Bahrain, Jordan and Oman) to complement those with monetary and emissions accounts, and develop a work plan through providing technical assistance by experts from countries that are further developed in water accounts;

(c) Assist countries in obtaining high-level support for SEEA implementation and organize international seminars in countries (such as Yemen) where there is a need to inform the policy debate and train staff;

(d) Tailor the assistance provided by ESCWA and other United Nations and regional organizations to the particular needs of ESCWA member countries.

## *2. Recommendations for ESCWA member countries*

(a) Strengthen environmental legislation, and implement regulations and action plans for monitoring the state of the environment, primarily relating to water and air. Particular emphasis should be placed on environmental accounts and defining goals towards the achievement of regional and international environmental standards;

(b) Determine appropriate organizational structures with clear delineations of responsibility; establish links between governmental bodies involved in the compilation of environmental data and accounts;

(c) Establish a forum to consult with the users of the statistics and accounts in order to ensure relevance;

(d) Make an inventory of current data and sources of data, including collection methods and periodicity;

(e) Compile accounts from existing data (commencing with water accounts). This will assist in determining data gaps and overlaps, and will enable a prioritized data collection strategy to be established;

(f) Provide on-the-job training to strengthen human, technical and financial resources in order to develop both a programme of environmental accounts and a data collection strategy. These should include a data quality assessment and a process by which national accounts can be linked to environmental accounts;

(g) Set up a data collection system on environmental protection expenditure. This should take administrative sources as its starting point and, where possible, be supplemented with new statistical surveys focusing on water;

(h) Conduct environmental and water surveys, collecting and recording geographically-representative primary and secondary environmental and water data on a regular basis;

(i) Adopt new classifications, methodologies, standards and coding systems, as well as the International Recommendations for Water Statistics (IRWS) and other recommendations (such as the International Recommendations for Energy Statistics) as they become available;

(j) Fill data gaps in specific areas, including the following : (i) water quantity statistics in terms of supply, demand and distribution of water; (ii) water quality statistics for freshwater, drinking water, river water, lake and marine water, sewage and treated water; (iii) air quality and air emissions; (iv) municipal, industrial and hazardous waste in terms of quantities generated by source, and methods of disposal and composition; (v) land use and land degradation; and (iv) biodiversity;

(k) Disseminate statistics and metadata on water and environment through database systems that ensure efficient data processing and promote interinstitutional data exchange;

(l) Disseminate studies and reports based on the results of the water and environment accounts that highlight the relevance of the accounts and are of use to policymakers. This may in turn generate demand for other accounts with broader scope.

#### **B. RECOMMENDATIONS FOR ENVIRONMENTAL PUBLIC EXPENDITURE**

(a) Enacting environmental legislation and applying the “polluter pays” principle;

(b) Ensuring the linkage of external funds with national environmental priorities;  
Seeking additional financial resources through public-private partnership (for example, waste recycling and wastewater reuse projects;

(c) Enhancing and developing sustained innovative approaches in the field of environmental innovation, including clean production;

(d) Establishing special funds for environmental protection, which could be raised through the Kyoto protocol mechanism or environmental taxes;

(e) Supporting this package of financial tools with profitable and attractive investment in environmentally-friendly projects;

(f) Adopting the European Union Classification of Environmental Protection Activities system in order to ensure consistent expenditure distribution and monitoring across environmental protection activities;

(g) Extending coverage of the annual public environmental expenditure study to include households, the private sector and NGOs.

### **III. ORGANIZATION OF THE MEETING**

#### **A. VENUE AND DATE**

44. The Expert Group Meeting on Environmental Economic Accounting for the ESCWA Region was held in Beirut on 14-16 October 2009.

#### **B. OPENING OF THE MEETING**

45. Ms. Wafa Aboul Hosn opened the meeting with a statement of welcome to the participants. She emphasized the continued fruitful cooperation with UNSD, UNEP, the MEDSTAT programme (the regional statistical co-operation programme between the European Union and 10 Mediterranean partner countries), the League of Arab States and the World Bank, and underlined the opportunity for United Nations agencies to deliver as one. Highlighting the importance of reliable, high quality, timely and comparable statistics on water and environment to strengthen decision-making processes on the sustainable management of natural resources and its relation to economic growth, she also emphasized the opportunities offered by environmental accounting as a robust framework for producing integrated environmental and economic information for managers and decision-makers.

46. Ms. Alessandra Alfieri, Chief of the Environmental-Economic Accounts Section at UNSD, noted that the SEEA was given the highest priority on the international statistical agenda by the United Nations Statistical Commission. She outlined the current international policy debate on measuring progress, in particular the work of the Commission on the Measurement of Economic Performance and Social Progress (the Stiglitz Commission), the Beyond GDP initiative of the European Commission, the work of the Organisation for Economic Cooperation and Development on measuring progress and the importance of the SEEA as an information system to inform such policy debates. She expressed the satisfaction of the United

Nations Committee of Experts on Environmental-Economic Accounting, whose agenda includes SEEAW implementation, with the progress made through joint efforts with the United Nations regional commissions. She also presented a briefing on the UNSD work plan and highlighted the importance of implementing environmental economic accounting as an international standard in ESCWA member countries and the long-term benefits that it can offer the region.

47. Mr. Ali Kadri, Officer-in-Charge of the Statistics Division at ESCWA, made a statement on behalf of the Chief of the Statistics Division about the importance of environmental accounts and the implementation difficulties faced by member countries. He noted that most ESCWA member countries rely heavily on their natural resources for economic growth without accounting for the depletion of such resources or the effect on economic growth in the long term.

#### C. PARTICIPANTS

48. The meeting was attended by 27 participants from ESCWA member countries, experts from Chile and Slovenia, and representatives from a variety of international organizations. A list of participants is included in annex III.

# Annex I

## WORK PLAN FOR ESCWA COUNTRIES

ACTIVITIES	STAKEHOLDERS	TIME HORIZON
<b>Phase I - Setting the groundwork</b>		
1. Awareness raising on the importance of environmental accounting at the political and public levels	National authorities, (NGOs), UN and the public	
2. Legal framework		
Update legal framework on environment statistics and accounts	National Governments	
Reinforce the legislation (continuous)	National Governments and the public	
<b>Phase II - Institutional framework and coordination</b>		
1. Establishment of high-level steering committee		
Clarification of roles and responsibilities for data production and compilation of accounts	National authorities, Ministers and Director Generals	
Allocation of resources - full time staff, to be responsible for the compilation of the accounts		
2. Establishment of working group or continue with existing country teams (MEDSTAT, ESCWA focal points for the project)	National statistical office (NSO) and concerned ministries, private sector and NGOs	
Define the objectives		
Draft functioning rules and responsibilities		
Examine data exchange procedures	Technical staff in concerned departments	
Agree on a timetable for regular transmissions		
3. Data exchange: detailed data quality assessment of existing data sources and identification of data gaps	Technical staff in concerned departments	
4. Information system for environment statistics and accounts	IT experts in concerned departments	

ACTIVITIES	STAKEHOLDERS	TIME HORIZON
<b>Phase III - Technical support</b>		
1. Identification of training needs	NSO with concerned departments and organizations	
2. Training on the background documents on environmental accounting		
3. Environment surveys the industry questionnaire industries and services households	NSO with concerned departments	
<b>Phase IV - Production of pilot sub-accounts</b>		
<b>Sub-account 1: Water accounts</b>		
1. Build physical supply and use tables Identify available data sources and accessibility Find estimating methods for missing data Populate a first pilot table (SEEAW tables I, II)	NSO with water authorities and concerned departments	
2. Build hybrid accounts Identify available data sources and accessibility Enterprises reports	NSO with central bank and data producers on national accounts	
3. Build emissions tables Identify available data sources and accessibility	NSO with water authorities and concerned departments	
4. Build asset accounts Identify available data sources and accessibility		
<b>Sub-account 2: Energy accounts</b>	NSO with Ministries of energy and others	
<b>Sub-account 3: Land and Soil accounts</b>	NSO with Ministries of Agriculture and others	

ACTIVITIES	STAKEHOLDERS	TIME HORIZON
Phase V - Dissemination		
1. Publication of pilot study and planning for ongoing production of accounts	NSO with concerned departments	
2. Prepare a joint publication		
3. Revise tables and analysis for publication Prepare publication for release, website, promotional material, and brief senior officials on water accounts  Prepare plan for ongoing production of accounts, including a cost-effective way to address data deficiencies and gaps		
4. After publication, monitor use of accounts		
5. Review use and implement plan for ongoing production of water accounts	NSO with concerned departments, continuous	

## Annex II

### **LIST OF PARTICIPANTS**

#### **A. ESCWA MEMBER COUNTRIES**

##### Bahrain

Mr. Shaikh Meshal Ebrahim Jaber Al Khalifa  
Head of Financial Resources  
Public Commission for the Protection of Marine  
Resources, Environment and Wildlife  
Phone: 97317875115  
Mobile: 97339711133  
Fax: 97317874209  
E-mail: [mishalsh@hotmail.com](mailto:mishalsh@hotmail.com)

##### Egypt

Mr. Arafa Abdelrahman Rageh  
Director of Industrial Programming  
CAPMAS  
Phone: 20244782417  
Mobile: 20109061030  
Fax: 2024024099  
E-mail: [pres\\_capmas@capmas.gov.eg](mailto:pres_capmas@capmas.gov.eg)  
[ARAFA\\_rageh@yahoo.com](mailto:ARAFA_rageh@yahoo.com)

Ms. Elsayeda Moustafa  
Professor of Economics  
Alexandria University  
Phone: 2035439556  
Mobile: 20100066346  
E-mail: [elsamoustafa@yahoo.com](mailto:elsamoustafa@yahoo.com)

Dr. Magda Abdelhakam SHOUIEB  
Director of Environmental Economics  
Department  
Egyptian Environmental Affairs Agency  
Phone: 20225256452  
Mobile: 2020101000052  
Fax: 20225256490  
E-mail: [magda\\_shouieb@hotmail.com](mailto:magda_shouieb@hotmail.com)

##### Jordan

Mr. Khaled Alshatarat  
Environment Statistics  
Department of Statistics - Jordan  
Phone: 962 6 5300700  
Mobile: 962 7 96753039  
Fax: 962 6 5300710  
E-mail: [khaleds@dos.gov.jo](mailto:khaleds@dos.gov.jo)  
[khaledksr@yahoo.com](mailto:khaledksr@yahoo.com)

##### Lebanon

Mr. Ali Chalak  
Professor of Economics  
American University of Beirut  
Phone: (+961) (1) 350 000 Ext:4502  
Mobile: +961 (3) 381183  
E-mail: [alichalak@hotmail.com](mailto:alichalak@hotmail.com)  
[ac22@aub.edu.lb](mailto:ac22@aub.edu.lb)

Ms. Ghalia Hamamy  
Economist  
Central Administration of Statistics  
Phone: 9611373160  
Mobile: 9613804786  
Fax: 9611373161  
E-mail: [ghaliahamamy@windowslive.com](mailto:ghaliahamamy@windowslive.com)  
[hamamyghalia@yahoo.fr](mailto:hamamyghalia@yahoo.fr)

Ms. Grace Rachid  
Environmental Specialist  
Ministry of Environment  
Phone: 9611976555  
Mobile: 9613947341  
Fax: 9611976530  
E-mail: [g.rachid@moe.gov.lb](mailto:g.rachid@moe.gov.lb)

Ms. Neemat Abou Cham  
Graduate Student  
American University of Beirut  
Phone: 9611304006  
Mobile: 9613537042  
E-mail: [neemataboucham@hotmail.com](mailto:neemataboucham@hotmail.com)

---

\* Issued as submitted.



Lebanon (continued)

Mr. Ramzi Fanous  
Statistician  
Ministry of Environment  
Phone: 9611976555  
Mobile: 9613594283  
Fax: 9611976530  
E-mail: [r.fanous@moe.gov.lb](mailto:r.fanous@moe.gov.lb)

Ms. Samar Khalil  
Project Manager  
Ministry of Environment  
Phone: 9611976555  
Mobile: 9613450863  
Fax: 9611976530  
E-mail: [s.khalil@moe.gov.lb](mailto:s.khalil@moe.gov.lb)

Palestine

Mr. Mohammad Imad Masri  
Engineer  
House of Water and Environment, Ramallah  
Mobile: 972 or (+970) 2 240 1776  
Fax: 972 or (+970) 2 240 6848  
E-mail: [hwe@hwe.org.ps](mailto:hwe@hwe.org.ps)

Mr. Sharif Batta  
Director of Internal Auditing  
Environmental Quality Authority  
Phone: 00970 22403495  
Mobile: 970599674797  
Fax: 97022403494  
E-mail: [shareefbatta@yahoo.com](mailto:shareefbatta@yahoo.com)

Syrian Arab Republic

Mr. Jean Khoury  
Water Resources Consultant  
ACSAD  
Phone: 00934459857  
Mobile: 96393465075  
Fax: 009634459857  
E-mail: [john@scs-net.org](mailto:john@scs-net.org)

United Arab Emirates

Mr. Hamad Essa Aladhab  
External Auditing, Executive Manager  
Ministry of Environment and Water  
Mobile: 971508185530  
Fax: 97143963446  
E-mail: [healmatrooshi@moew.gov.ae](mailto:healmatrooshi@moew.gov.ae)

Yemen

Mr. Amin Alhamadi  
Deputy Director General of Planning  
Environment Protection Authority  
Phone: 9671207817 / 9671243624  
Mobile: 967711679091  
Fax: 9671207327  
E-mail: [alhmadi\\_albory@yahoo.com](mailto:alhmadi_albory@yahoo.com)

Mr. Nouri Dawood  
Head of Coordination and Follow-up Department  
Ministry of Water and Environment  
Phone: 9671335002  
Mobile: 967711907606  
Fax: 9671335003  
E-mail: [noori94@yahoo.com](mailto:noori94@yahoo.com)

B. NON-ESCWA COUNTRIES

Chile

Mr. Dharmo Rojas  
Jefe Unidad de Estadísticas Medioambientales  
Casilla 498-3,  
Phone: 56-2-438 8252  
Mobile: 56-2-08920 8924  
E-mail: [dharmo.rojas@ine.cl](mailto:dharmo.rojas@ine.cl)

Slovenia

Ms. Danika Bizjak  
Advisor  
Statistical office of the Republic of Slovenia  
Phone: 38612340746  
Mobile: 38631443005  
Fax: 38612340860  
E-mail: [danica.bizjak@gov.si](mailto:danica.bizjak@gov.si)

## C. REGIONAL ORGANIZATIONS

### League of Arab States

Mr. Mohamed Awad Alkarim Mohamed Osman  
Environment, Housing and Sustainable  
Development Department  
League of Arab States, Cairo  
Phone: +20225750511/3667  
Mobile: +20187229900  
Fax: +20225743023  
E-mail: [m\\_kona2002@hotmail.com](mailto:m_kona2002@hotmail.com),  
[envsusdev.dept@las.int](mailto:envsusdev.dept@las.int)

## D. UNITED NATIONS ORGANIZATIONS

### ECA - African Centre for Statistics

Mr. Negussie Gorfe  
Statistician  
African Centre for Statistics, Ethiopia  
Phone: 251 11 5 443209  
Mobile: 251 911 332099  
Fax: 251 11 5 510389  
E-mail: [ngorfe@uneca.org](mailto:ngorfe@uneca.org)

### UNEP

Ms. Yasmina Adra  
Associate Programme Officer  
Division of Early Warning & Assessment – WA  
UNEP, Bahrain  
Phone: 97317812787  
Mobile: 973336313832  
Fax: 973178125110  
E-mail: [yasmina.adra@unep.org](mailto:yasmina.adra@unep.org)

### UNSD

Ms. Alessandra Alfieri  
Chief, Environmental-Economic Accounts  
Section  
United Nations Statistics Division  
Two UN Plaza, DC2-1518  
New York USA 10017  
Phone: 1 212 963 4590  
Fax: + 1 212 963 1374  
E-mail: [alfieri@un.org](mailto:alfieri@un.org)

### World Bank

Mr. Fadi Doumani  
Environmental Economist Consultant  
The World Bank, Washington, DC  
Phone: 1 202 473 000  
Mobile: 9613105999  
E-mail: [fdoumani@worldbank.org](mailto:fdoumani@worldbank.org)

### ESCWA

Ms. Wafa Aboul Hosn  
Team leader – Sectoral Statistics  
ESCWA  
Phone: 9611981301  
Fax: 961981510  
E-mail: [aboulhosn@un.org](mailto:aboulhosn@un.org)

Ms. Therese El Gemayel  
Environmental Consultant  
ESCWA  
Phone: 9611981301  
Fax: 9611981510  
E-mail: [elgemayel@un.org](mailto:elgemayel@un.org)  
[therese.gemayel@hotmail.com](mailto:therese.gemayel@hotmail.com)

Mr. Wassim Hammoud  
Research Assistant  
ESCWA  
Phone: 9611981349  
Mobile: 9613352419  
Fax: 9611981510  
E-mail: [hammoudw@un.org](mailto:hammoudw@un.org)

### Annex III

## EVALUATION OF THE MEETING

### QUESTIONNAIRE ON OPINIONS OF PARTICIPANTS NUMBER OF RESPONSES = 18

Please evaluate the following	Very good	Good	Average	Poor	Very poor
<b>1. Evaluation of quality</b>	33.4%	50%	5.6%	5.5%	5.5%
<b>2. What were your expectations of EGM?</b> <ul style="list-style-type: none"> <li>- Plans to measure the progress in 3 or 6 months;</li> <li>- Benefit from regional expertise and SEEA experts;</li> <li>- Technical and practical methods to apply the SEEA;</li> <li>- Get to know the advancement of countries in applying the SEEA;</li> <li>- Get to know the SEEA, its functions, applications and results;</li> <li>- Capacity building for participants regarding the SEEA and Environment indicators;</li> <li>- Recommendations for the next step for the SEEA;</li> <li>- Defining data quality that need to be acquired for the short and long term;</li> <li>- Have access to statistical data and implement it in the ESCWA countries;</li> <li>- Concrete country experience in the field of SEEA;</li> <li>- Develop a work plan for Environmental Economic Accounting for the ESCWA region.</li> </ul>					
<b>3. Were your expectations met?</b>	<b>Yes</b> 76.5%		<b>No</b> -	<b>Partially</b> 23.5%	
Please evaluate the following	Very Good	Good	Average	Poor	Very poor
<b>4. a. Relevance to the subject of your work/area of expertise</b>	47.1%	52.9%	-	-	-
<b>4. b. Knowledge and skills obtained for your future work</b>	17.6%	64.7%	11.8%	5.9%	-
<b>4. c. Providing a forum of exchange with other participants</b>	41.2%	47.1%	11.7%	-	-
<b>4. d. Providing an opportunity to establish new useful contacts</b>	62.5%	37.5%	-	-	-
<b>4. e. Usefulness of exchange of experiences among participants</b>	52.9%	41.2%	-	5.9%	-

Rate the meeting as follow	Very good	Good	Average	Poor	Very poor
<b>5. a. Clarity of presentations</b>	43.75%	25%	31.25%	-	-
<b>5. b. Quality of written material circulated by the organizers</b>	52.9%	41.2%	5.9%	-	-
<b>5. c. Organizational arrangements for and during the event</b>	76.5%	17.6%	-	5.9%	-
<b>6. Duration of EGM should have been</b> <div> Shorter <input type="text" value="12%"/> Same <input type="text" value="47%"/> Longer <input type="text" value="41%"/> </div> <p><b>If you see need for longer or shorter EGM, specify which session(s) should have been shorter or longer</b></p> <ul style="list-style-type: none"> <li>- Allotting longer time for questions and comments to benefit from the present experts;</li> <li>- Reduce the timing of the theoretical sessions;</li> <li>- Allotting longer time for the country experiences session (presentations and discussions);</li> <li>- Allotting longer time to all sessions to give more details, compare countries, evaluate their experience and cover all the sides of the topic.</li> </ul>					
<b>7. Would you be able to benefit in your work from the information acquired at this EGM, or to introduce such information to other specialists in your country or community?</b> <div> To some extent <input type="text" value="17%"/> No <input type="text" value="-"/> Yes <input type="text" value="83%"/> </div>					
<b>8. Would you recommend that other experts from your country or other colleagues in your profession participate in similar EGM that may be held in the future?</b> <div> To some extent <input type="text" value="11%"/> No <input type="text" value="6%"/> Yes <input type="text" value="83%"/> </div>					
<b>9. Have you participated in activities on the same topic in other organizations?</b> <div> No <input type="text" value="53%"/> Yes <input type="text" value="47%"/> </div> <p>If your answer is 'Yes':</p> <p>Specify topic? Work plan for the Department, SEEAW, Economic and Environmental Accounting, water accounts, Cost of Environmental degradation Methodology, Environment Protection Expenditures.</p> <p>What organization? GTZ, Invent, ESCWA, Arab Administrative Development Organization (ARADO), MEDSTAT II, World Bank and AUB, MEDSTAT II.</p> <p>When and where? 2005-2009, Jordan, Egypt, Palestine, 2008 Lebanon, 2007 Egypt, 2009 Vienna, 2008 Lebanon, 2009 Stockholm.</p>					

**10. Would you like any follow-up action on the meeting?**

Yes

94%

No

6%

If your answer is 'Yes':

Please specify the type of action:

- Meeting regarding the work plan with specified targets to accomplish;
- Technical meetings for the implementation of the SEEA in specified sectors;
- Continuous coordination with experts to resolve faced problems;
- ESCWA should send the accounts tables to be filled by countries;
- Environmental Protection Expenditure/ environment accounts meetings;
- Apply the recommendations on the administrative level, help in the implementation of the project;
- Discuss the SEEA with the LAS during the meeting for experts on Environment, Statistics and Economy for the Arab countries;
- More capacity building for the participants since the SEEA is a new tool to be applied;
- Update on the ESCWA countries implementation through newsletters, concrete technical mission assistance and details related to water equations;
- Distribute the agreed program of work to the ESCWA committee of statistics;
- Presentation of the SEEA-water and the program of implementation to the LAS for the meeting of Ministries of Water and Environment.

If your answer is 'No':

Please state why:

**11. Do you have any suggestions to improve and develop similar meetings to be held in the future?**

- Organize a set of consecutive meetings to reach a specific goal;
- Guide the speakers in the preparation of the presentations to meet the meetings' goals;
- Organize a mechanism to continue the collaboration, i.e. forums and conference calling;
- Reduce the working day schedule (9.00 to 15.00) and adding days to the EGM;
- Focus the agenda on specific topics, no need for too many presentations;
- More practical exercises, fictive examples to fill the tables.

**12. Would you like to make any observations or comments or pose any questions to ESCWA regarding the EGM?**

- Specify working papers to be done before the preparation of the next meeting and continuous coordination with experts;
- Improve the participation fees due to the far geographical location or the high prices;
- Very heavy schedule.