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International Workshop on Environmental and Economic Accounting[1]

Jointly organized by
National Statistical Coordination Board (NSCB) of the Philippines,
United Nations Statistical Division (UNSD) and
United Nations Development Program (UNDP)

Manila, Philippines
18-22 September 2000

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PROCEEDINGS OF THE INTERNATIONAL WORKSHOP ON ENVIRONMENTAL AND ECONOMIC ACCOUNTING
Manila, Philippines
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ORGANIZATION OF THE WORKSHOP

1. The International Workshop on Environmental and Economic Accounting (IWEEA) was held at the Westin Philippine Plaza, Manila, Philippines, from 18 to 22 September 2000. It was jointly organized by the National Statistical Coordination Board (NSCB) of the Philippines, the United Nations Statistical Division (UNSD) and the United Nations Development Program (UNDP).

Attendance

2. The Workshop was attended by representatives of fourteen countries in the Asia-Pacific region; Australia, Cambodia, China, Hong Kong China, Indonesia, Japan, Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam, representatives of the United Kingdom and the United States of America, and of international organizations, UNDP, UNSD, Economic and Social Commission for Asia and the Pacific (ESCAP), Asian Development Bank (ADB), the World Bank (WB). Annex 1 shows the list of participants.

Objectives of the Workshop

3. The Workshop aimed to serve as a venue to review, compare, and discuss the work-in-progress in the development of environmental accounting in the Asia-Pacific region with special attention to the ASEAN region. Specifically, it aimed (a) to train the participants in the implementation of the System of Integrated Environmental and Economic Accounting (SEEA); (b) to provide a forum for sharing experiences in environmental accounting among countries in the Asia-Pacific region; (c) to provide a venue for discussing the first draft of the SEEA-2000 which is currently being developed by the London Group; (d) to assess the stage of implementation of environmental accounting in various countries in the region; and (e) to formally create a network or forum of countries working on environmental accounting in the region.

Opening of the Workshop

4. The workshop was formally opened with remarks from NSCB Secretary-General Romulo A. Virola followed by messages from Under Secretary Ramon J. Paje on behalf of Hon. Antonio H. Cerilles, Department of Environment and Natural Resources (DENR) Philippines; Hon. Terence D. Jones, Resident Representative of UNDP; Ms. Alessandra Alfieri on behalf of UNSD Director Hermann Habermann; Ms. Heidi Arboleda on behalf of ESCAP Statistics

Division Director Andrew Flatt, and from the keynote speaker Felipe M. Medalla, Philippine Secretary of Socio-Economic Planning.

5. In the opening of the workshop, Mr. Virola of NSCB welcomed the opportunity to share knowledge and experience on environmental accounting among the Asia-Pacific countries. He also thanked its partners, UNDP and UNSD, for making the workshop possible. Special thanks were given to the National Economic and Development Authority (NEDA) and DENR Philippines as well as country participants, session chairpersons, resource persons and representatives from international organizations.

6. Mr. Ramon Paje thanked NCSB on behalf of Hon. Antonio Cerilles and welcomed the participants. He mentioned the work of NSCB, the department of Environmental and Natural Resource and of other agencies on the development of the Philippines Economic-Environmental and Natural Resource Accounts (PEENRA). He emphasized the importance of a basic environmental information system as a basis for integrating economic and environmental policies. He noted that PEENRA together with the Philippines framework for the development of environmental statistics are necessary tools for measuring sustainable development.

7. Mr. Terence Jones, Resident Representative of UNDP, welcomed all the participants to the workshop. He stressed the importance of the commitment by governments to account for the environment and noted that the Philippines as well as other developing countries in the region followed up the pilot initiatives supported by external institutions. He thanked NSCB, NEDA, DENR, UNDP and UNSD for organizing this event.

8. Ms. Alessandra Alfieri of UNSD delivered a speech on behalf of the UNSD Director Hermann Habermann. She thanked NSCB for having offered to host the first workshop of the UNSD project “Strengthening Capacity for Statistical development in South East Asia”. She stressed the importance of environmental accounting as a tool for measuring sustainable development and integrating the environment into mainstream economic policies. She acknowledged the longstanding cooperation between UNSD and NSCB in the development of environmental accounting and in other areas of statistics. She commended NSCB for their success in establishing an institutional set-up involving various agencies in the country, essential condition for incorporating environmental accounting into mainstream decision making.

9. Ms. Heidi Arboleda on behalf of the Director Adrew Flatt of ESCAP Statistics Division thanked NCSB, UNDP and UNSD for organizing this workshop. She emphasized the importance of such fora to train experts in the regions and to serve as venue to share experiences of countries working in the field.

10. The keynote speaker Felipe M. Medalla, Philippine Secretary of Socio-Economic Planning, stressed the role of the Asia-Pacific as the fastest-growing economies in the world and noted the major impact of the region’s economic growth on the global environment. The speaker also emphasized the need for environmental accounting and indicators of sustainable development and recognized that the workshop is a step in that direction.

11. In the evening, Hon. Sec. Antonio H. Cerilles of the DENR, Philippines hosted a cocktail party for all the participants.

Workshop Agenda

12. The Workshop was divided into 17 sessions covering concepts, and methods as well as implementation issues, country experiences and policy applications in environmental accounting. A panel discussion was devoted to future activities including the organization of a forum on environmental accounting which would facilitate the networking among countries in the region. Specific topics of the workshop included: (a) the SNA and the SEEA Framework; (b) asset accounts; (c) physical flows; (d) Environmental Protection Expenditures (EPE) Accounts; (e) valuation of non-market flows; (f) policy uses and applications; and (g) Institutionalization of the Philippines Economic-Environmental and Natural Resources Accounting (PEENRA) System. Annex 2 shows the detailed programme of activities.

SUMMARY OF PRESENTATIONS AND DISCUSSIONS

Country Presentations on Environmental Accounting

13. Country representatives presented their current and future activities on environmental accounting. It was noted that most of the participating countries were still on the initial stages of developing environmental accounts. Some however, had initiated the compilation of environmental statistics. The following emerged from the country presentations:

- All countries were interested in starting to work in environmental accounting;
- Different countries in the region were at different stages of development in environmental accounting;
- The availability of data was an important issue to be addressed in implementing environmental accounting. Coordination among different stakeholders, e.g. data producers and users, was deemed important for integrating environmental accounting in a regular programme of activity of a national statistical office and into main stream economic policy;
- Countries expressed the need for capacity building. Many countries would benefit from both the technical and financial assistance from different institutions as well as from sharing experiences with countries who are in the process of implementing environmental accounting.

Session 1 – From the System of National Accounts (SNA) to the System of integrated Environmental and Economic Accounting (SEEA)

14. The representative from ESCAP presented an overview on the System of National Accounts (SNA). The presentation covered the structure of system with emphasis on those elements which are relevant to the System of Integrated Economic Environmental Accounts (SEEA). The presenter described the basic concepts of agents of the system, accounting framework, transactions (stocks and flows), and asset boundary in the SNA.

15. The Supply and Use table (SUT) and the asset accounts were discussed at length. During the presentation, it was noted that the SNA already includes some information about the environment: environmental assets such as land, cultivated assets and mineral deposits, which are traded in the market, are within the SNA asset boundary. Other environmental assets such as ecosystems over which either ownership rights cannot be enforced or economic benefits cannot be derived are excluded. It was noted that the SNA also includes in its production boundary goods that are not traded in the market, e.g. fuel wood, wild berries and mushroom, etc. The value of these products can be imputed. These goods should be valued either at the price they would have been sold if offered on the market or at the cost of production including intermediate consumption, compensation of employees, consumption of fixed capital and other taxes less subsides on production.

16. In the SEEA, the SNA framework has been extended to better represent the inter-relationships between the economy and the environment. In particular, (a) the SNA asset boundary has been extended to include all environmental assets; (b) some of the information already included in the SNA is disaggregated to highlight some aspects related to the environment (e.g. environmental protection expenditures); (c) physical information is presented side-by-side with monetary information, using classifications which are consistent with the existing economic classifications; (d) improved accounting for national wealth to include not only produced capital but also natural capital such as marine resources, tropical forests, land soil, subsoil assets and water; (e) assessment of environmental costs to include the use of natural resources in production and consumption (depletion) and the impacts on environmental quality resulting from pollution (degradation).

17. The UNSD representative described the revision process of the SEEA and the role of the Workshop in this regard. She explained that the SEEA revision process started in 1997, when the Statistical Commission, at its 29th session, requested the London Group on Environmental Accounting to collaborate with UNSD on the revision of the UN handbook on *Integrated Environmental and Economic Accounting* (SEEA) published in 1993. Since then, the London Group has developed draft chapters of the handbook, which are available on the London group web page (http://ww2.statcan.ca/citygrp/london/london.htm). These chapters would be discussed during this workshop as part of the consultation process developed by the London Group. The consultation and communication with the broad international community throughout the revision process is crucial for reaching a consensus on best practices. This workshop is an important vehicle for receiving feedback on the SEEA revision. Comments on and issues related to the handbook that were raised during the Workshop, are summarized on page 19.

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18. A clarification was requested on the distinction between SNA and non-SNA environmental asset in the SEEA. Economic environmental assets are those environmental assets which are owned and are capable of bringing economic benefits to their owners. These assets are within the SNA asset boundary and they are often referred to as SNA environmental assets. Non-SNA environmental assets comprise environmental assets which provide "non-economic" benefits such as waste absorption, ecological functions, e.g. flood and habitat control, and other non-economic amenities. These assets are not included in the SNA asset.

19. A question was raised on the relationship between the SNA and the SEEA framework. It was highlighted that the SEEA is a satellite account of the SNA. Satellite accounts expand

the national accounting for selected areas of social concern in a flexible manner, without disrupting the central system. Typically they allow for: (a) the provision of additional information on particular social concerns; (b) the use of complementary or alternative concepts, including the use of complementary or alternative classifications and accounting framework, when needed to introduce additional dimension to the framework of national accounts; (c) an extended coverage of costs and benefits of human activities; (d) further analysis of data by means of relevant indicators and aggregates; and (e) linkage of physical data sources and analysis to the monetary accounting system. Satellite accounts are linked with the central framework of national accounts and through them to the main body of integrated economic statistics. As they are more specific to a given field or topic, they are also linked to the information system specific to the topic. Satellite accounts call for better integration of monetary and physical data, and because they preserve close connection with the central accounts they facilitate analyses of specific fields in the context of macro-economic accounts and analyses.

20. A question was raised on the relationship between the work of the UN Commission on Sustainable Development and the work of the UNSD on the SEEA-2000 manual. It was explained that the SEEA-2000 could be viewed as a framework for measuring sustainable development; environmental and economic indicators can be derived from such an accounting system.

Session 2 – System of Integrated Environmental and Economic Accounting SEEA-2000 Framework

21. The representative from The United Kingdom presented the SEEA framework by describing the objectives of this satellite accounting system, its advantages and limitations, its relationship with the SNA, and the modular approach. This presentation was based on Chapter 1 of the draft SEEA-2000 manual (version of May 2000).

22. The speaker stressed the importance of environmental accounts to support sustainable development policy, for example, by describing the availability of natural resources and their role in the economy, by assessing the level and cost of emissions and other waste from production and consumption, and by identifying environmentally important economic flows within the standard national accounts

23. It was emphasized that an accounting approach improves consistency between economic and environmental statistics, encourages the adoption of standards and facilitates international comparisons. Furthermore, it was noted that the consistency of environmental accounting with the definitions, classification and concepts of the SNA enables economic and environmental elements to be analyzed together, and provides a system into which monetary valuations of environmental costs can be incorporated. It was also noted that an accounting approach does not adapt too easily to cover seasonal or sub-national issues, and for many environmental assets year-based accounts may not always be appropriate.

24. The modular framework of the SEEA was presented. The four modules of the SEEA-2000 are: (a) assets accounts; (b) physical flow accounts; (c) environmental protection, resource management and resource exploitation accounts; and (d) monetary valuation of non-market environmental costs. It was emphasized that the advantage of a modular approach is that it allows countries to focus on the compilation of specific modules depending on the country priorities and on data availability.

25. It was noted that the valuation of non-SNA assets still remains an issue in the SEEA-2000. According to the policy questions that one wishes to answer, different valuation techniques may be used. The handbook describes the different valuation techniques, but no recommendation is provided.

Open Forum

26. There was a concern that the manual did not recognise sufficiently the practical difficulties of obtaining relevant data and securing resources to compile the accounts. The danger was that the accounts might just be seen as purely aspirational and hence ignored in favour of more pragmatic solutions. Some attention to the ways in which the framework and modules might be adapted to meet the needs of countries with fewer resources would help the SEEA to become more widely adopted.

27. There was strong interest in the development of sub-national accounts, although it was recognised that they could be problematic when natural boundaries such as watersheds do not coincide with administrative boundaries. Such accounts were more practicable for regions which are distinct geographic entities such as islands.

28. There was also a discussion on the institutional aspects related to the implementation of environmental accounting. It was generally felt that the environmental accounts unit should be located within the national statistical institute. It was recognised that it is essential to have good cooperation between national accountants and environmental statisticians, access to environmental statistics and cooperation with environmental agencies.

Session 3 – Selected Country Experiences (Frameworks)

29. The aim of this session was to share country experiences on ways the SEEA framework has been implemented according to the countries' priorities and environmental concerns. The experiences of the Philippines and Australia were presented.

30. The representative from NSCB introduced the Philippines SEEA (PSEEA) which was implemented with technical assistance of UNSD and financial assistance of UNDP. In the PSEEA the asset accounts are compiled in physical and monetary terms for the following non-produced economic assets: forest, fisheries, land and water resources. Emission accounts are also compiled. The Supply and Use tables and assets accounts are integrated in a common framework. Depletion of natural resources and maintenance cost of emissions are also calculated and integrated in the framework, and environmental adjusted aggregates for depletion and degradation are calculated. The importance of relevant data to compile the accounts was emphasized: a major issue for the implementation of the accounts was the lack of environmental data. Even when environmental data were available, they usually were not in a form compatible with the accounting framework, and modifications had to be made.

31. An overview on the Philippine Environmental and Natural Resource Accounting Project (ENRAP) was presented. ENRAP uses a different approach to integrate economic and environmental data. It was noted that the main differences between the ENRAP and the SEEA approach are in (a) the presentation of the general framework, (b) the treatment of depletion, and (c) the measurement of environmental services. In ENRAP depletion is defined as the change in value between the opening and closing stocks, while in the SEEA

depletion is only that part of the decrease in value which is due to human activities and therefore it does not include natural causes and changes in prices. There is no experience of valuation of damages within the SEEA framework. ENRAP instead uses several valuation techniques which although may not be consistent with the market valuation used in the SNA.

32. The representative from Australia presented the accounting framework implemented in Australia which reflects very closely the SEEA framework. Physical asset accounts were compiled in Australia for mineral, water and energy resources. Also balance sheets for forest, land and subsoil resources were compiled. It was mentioned that the Australian Bureau of Statistics was not involved in the compilation of total material flow accounts because of the high resource costs and low perceived benefits.

Session 4 – Environmental Asset Accounts

33. The representative from UNSD gave an overview of the Environmental Asset Accounts in the SEEA. The presentation was based on Chapter 2 of the draft SEEA-2000 (version of May 2000), and covered the classification of environmental asset, the structure of the accounts, the economic valuation techniques and the monetary accounts.

34. The speaker emphasized the importance of compiling asset accounts since they provide a basis to (a) monitor how the resources are used in the production, (b) assess the economic contribution of the resources to each industry, (c) assess if the resource rent is recovered through taxes or user fees, (d) assist in resource management policy, and (e) assess national wealth.

35. The linkage between the SEEA and the SNA asset classification was described. The SEEA extends the SNA asset boundary by recognizing the importance of benefits beyond the economic ones as defined in the SNA, provided by an asset. Therefore the SEEA includes assets which provide a wide range of benefits, such as direct and indirect use benefits, option and bequest benefits.

36. The classification of environmental assets was presented in detail. It was noted that in the SEEA, the environmental assets are grouped in three main categories: Natural Resources, Land and Surface Water, and Ecosystems. This classification is based on the description of three main functions of environmental assets. Natural Resources comprise all those elements in the environment which provide input of raw material for production. Land and Surface Water comprise those elements in the environment which provide benefits through the provision of space for economic and non-economic human activities. Finally, Ecosystems comprise those elements of the environment which provide benefits for humans in the form of a variety of services, including cleansing air, protection of radiation and others.

37. It was emphasized that the asset classification may not reflect some country-specific issues and should be used as a guide rather than being a prescriptive list in the compilation of the accounts.

38. The general structure of the asset accounts was described in physical and in monetary terms. Valuation techniques of the SNA environmental assets were discussed. Market values should be used if available. In the absence of market prices, the SEEA-2000 recommends to use the Net Present Value (NPV). Alternative valuation techniques such as the net price method and the user cost were also discussed.

Open Forum

39. A question was raised on how to estimate the resource rent in the case of an industry composed of small-scale entrepreneurs e.g. fishing industry. It was noted that in the SNA the operating surplus/mixed income contains a component on the remuneration of work done by the owner of the enterprise and other members of the same households as well as a surplus accruing for production. In order to estimate the resource rent, the remuneration has to be deducted from the mixed income, as well as the normal return to capital.

40. It was mentioned that this classification does not distinguish between non-produced SNA assets and non-SNA assets.

41. Some countries noted the importance in the choice of the discount rate and its implication in the calculation of the value of the natural resource stocks when using the NPV. It was requested that further guidance would be given in the SEEA on whether to choose a social or a business discount rate.

42. A question on the possible causes for "negative rents" was raised. It was noted that negative rents may arise because of data inaccuracies, as rent is calculated as a residual, and because of policy decisions. It was mentioned that in Norway, for example, negative rents for fisheries depend on a specific government policy to promote equitable regional development, rather than economic efficiency.

Session 5 – Compilation of Resource Accounts (Selected Case Studies)

43. *Mineral and Energy Resource Accounts*: The representative of UNSD gave a general introduction on how to compile the accounts for mineral and energy resources accounts. Definition of proven, possible and probable reserves, calculation of lifetime of the resources and valuation methods were discussed. Country experiences of Australia, Mongolia, Namibia and Botswana were presented with emphasis on the practical approaches used in each country. The main issues raised during the discussion included: (a) treatment of depletion and its link to discoveries and exploration costs; (b) valuation in presence of high inflation, (c) the allocation of the extraction costs to different products, when they are extracted from the same mine, (d) difficulty in estimating future prices of minerals, for example, diamonds, and (e) the problem of data confidentiality.

44. *Forest Resource Accounts:* In the general introduction of forest accounts, the representative of UNSD covered the definition of forest, forest classifications, the structure of physical and monetary accounts both for cultivated and non-cultivated forest, and the valuation issues. Indonesia and Mongolia presented their country experiences. Main issues raised during the discussion included: (a) concept of stumpage value, which seems to differ between accountants and foresters; (b) computation of the resource rent for renewable resources; and (c) calculation of the lifetime of the forest.

45. *Fishery Resource Accounts:* The representative of UNSD introduced the fishery asset accounts framework of the SEEA with emphasis on the main issues related to fishery resource accounts. Philippines presented an example of physical and monetary accounts for fisheries. Main issues raised during the discussion included: (a) the lack of data on fish stock which has implications on the management of the fishery resources as well as on the

calculation of depletion; (b) calculation of maximum sustainable yield and (c) concept of residency and treatment of illegal fishing in national waters by foreign vessels.

46. *Land/Soil Resource Accounts:* The representative of UNSD introduced the classification of land including soil and ecosystems and the structures of physical and monetary accounts. The Philippines and Mongolia presented their experiences on land/soil accounting. The Philippine paper focused on the calculation in physical and monetary terms of soil erosion; the Mongolian paper presented accounts for pastureland taking in consideration the issue of overgrazing. Main issues raised during the discussion included: (a) the relationship of the value of soil erosion and productivity loss to the value of land; and (b) valuation of agricultural fallow land.

47. *Water Resource Accounts*: In the general introduction of water accounts, the representative of UNSD covered the SEEA classification of water, the difference between the SEEA and the SNA classification, and the general structure of physical accounts. It was mentioned that there is not yet an agreed framework for water accounts. The experience of Southern Africa and Australia was presented. The presentations highlighted the difference in approaches used in the compilation of the accounts. Main issues raised during the discussion included: (a) measurement and definition of stocks of water; (b) incorporation of long climatic variability in annual accounts; (c) consideration of the spatial characteristics of water in the accounts; (d) compilation of quality asset accounts; and (e) valuation. It was noted that although the valuation of water is very controversial and there is little practical experience, it is an important issue in policy analysis and it was recommended that this issue be addressed in the SEEA-2000.

Session 6 – Physical Flows and Energy Accounts

48. The representative of the United Kingdom introduced physical flow accounts. The presentation was based on Chapter 3 of the draft SEEA-2000 (Version of May 2000) and covered the objectives of the accounts, the classification of flows, emission accounts, material flow accounts, natural resource accounting and applications.

49. The speaker emphasized the importance of compiling physical flow accounts to (a) determine changes in natural resource stocks and provide a linkage between flows and stocks; (b) determine the potential threats to the environment caused by natural resource extraction and the returns of residuals; (c) describe the physical economy and industrial metabolism on the basis of material balance principle; and (d) provide information for the construction of environmental performance indicators.

50. The classification of flows of natural resources, products and residuals was presented. It was explained that natural resources are those environmental resources which serve as material input to production; once these resources are sold on the market they become products; and when they are returned to the environment they become residuals. The structure of supply and use tables for these flows was described. The supply table for products shows the output of animal, energy products etc. by industry and the use table shows the sectors that consume the products; the use table for natural resources show the use of natural assets by sector e.g. industries and households; and the supply and use tables for residuals show the sectors that generate the residuals and the industries that re-absorb them.

51. The representative of UK introduced energy accounts. He highlighted their importance, data requirements, and methods. It was noted that energy accounts provide information on direct energy consumption by industries and households and they form a basis for air emission accounts. Energy accounts comprise supply and use tables in physical terms of energy resources. In these accounts, energy use and emissions are allocated to industrial sectors using relevant proxy indicators such as distance traveled by lorries, expenditures on fuel, and trade association data on solvents.

52. It was noted that physical flows accounts could be presented at different level of aggregation. The most aggregated form of presentation, for example, is the economy-wide material flow accounts which estimate *inter alia* the total material requirement of a national economy. Energy accounts provide information on changes in energy requirements of particular industries in relation to their output. This shows the macro level impacts of new technologies and eco-efficiency measures and behavioral changes. Finally it was mentioned that on the basis of physical flows input-output modeling could be constructed, for example, to allocate CO_2 emissions to the different final demand categories, to compute energy intensities of products.

Open Forum

53. A question was raised on the treatment of emissions due to transport. It was explained that, consistently with the SNA, emissions from mobile sources should be allocated to the causing sector, e.g. industries (by ISIC), households and the rest of the world.

54. It was emphasized that countries should focus on selected issues that are nationally relevant and construct specific accounts for these issues. It was noted that physical Input-Output tables are very data demanding and should not be attempted by countries that are embarking the implementation of environmental accounting. Mixed physical and monetary accounts, with physical information aggregated according to themes such as Greenhouse Gases (weighted by global warming equivalents and expressed in terms of carbon equivalents) and Acid Rain Potential (weighted by potential acid equivalents relative to SO2) are usually more easily compiled and constitute an helpful tool in relating emissions to environmental impacts.

55. Several countries mentioned the lack of data on emissions. They expressed the need for methodological publications to assist them in possible future data collection on emissions.

Session 7 – Selected Country Experiences on Physical Flows

56. Physical flows accounts of Australia and Thailand were presented. In particular the presentations covered energy and emission accounts for Australia and physical flows of forest products for Thailand.

57. The representative of Australia introduced stocks and flows account for energy. The stocks of energy resources, such as mineral and petroleum resources are classified according to the degree of geological assurance and economic feasibility of the resource. It was explained that in order to construct physical energy accounts, the calorific energy content must be converted to a common unit of energy for primary and secondary energy sources; supply and use tables are then compiled separately for the two commodity types to avoid

double counting. The general framework for emission accounts was presented for emission of greenhouse gases.

58. The representative of Thailand introduced physical flows of forest products. It was noted that in the 70's and early 80's Thailand experienced high deforestation which lead the country to import wood. Forest accounts were therefore compiled to monitor the use of the resource. It was explained that two tables were compiled separately, namely Sector Commodity Tables and Mass Balance Tables. These tables show the relationship between input and output of wood related industries and pollutant discharge during the production process. The representative of Thailand presented future directions for accounting in Thailand which include National Balance Sheet for forest and energy accounts.

Session 8 – Environmental Protection Expenditures (EPE)

59. The representative of Australia introduced Environmental Protection Expenditure (EPE) accounts. The presentation was based on Chapter 4 of the draft SEEA-2000, version of May 2000.

60. It was explained that the SEEA-2000 does not only deal with environmental protection expenditures but also with environmental beneficial activities, natural resource management and exploitation activities, and minimization of natural hazard. Environmental protection activities are those activities whose primary purpose is the protection of the environment, that is the avoidance of the negative effects of the economy on the environment. Environmental beneficial activities are those activities which may be primarily undertaken for economic reasons but yield substantial environmental benefits even though their primary purpose is not the protection of the environment. Natural resource management and exploitation activities cover management activities such as research into management of natural resources and monitoring, and activities of abstraction, extraction of natural assets including exploration and development. Finally, minimization of natural hazard includes activities aiming at the minimization of natural hazards and of their impacts. It may be difficult, although, to determine to what extent natural hazard are caused by human intervention.

61. It was explained that environmental expenditures are actual expenses incurred by industries, households, governments, and non-governmental organizations. It was also explained that these expenditures are included in the SNA although they are not usually separately identified in the conventional production and use accounts. One of the objectives of the SEEA is to make explicit the expenditures on environmental protection activities according to the Classification of Environmental Protection Activities (CEPA), so that a picture of the efforts that have been undertaken by the different sectors of the economy to protect the environment and maintain its natural capital can be provided.

Open Forum

62. The importance of environmental taxes in environmental protection accounts was emphasized. These taxes may provide useful information in a policy context of "green" fiscal reform which aims at changing the structure of taxation as to reduce the tax burden on labour and to increase the tax burden on the use of the environment. It was noted although that the definition of environmental taxes may in some cases be ambiguous in some

borderline cases such as VAT on energy products, taxes on purchase of land, on tourism, and resource extraction.

63. It was noted that there could be some difficulties in clearly define environmental protection expenditures since expenditures can have a range of motives such as compliance with regulation, increased efficiency or protection of environment. Examples of the problems involved in attributing an expenditure to environmental protection are in the case of the adoption of cleaner technology which increases productivity, and of a technology in order to ensure that the exported products satisfies certain regulations imposed by purchasing countries.

64. It was felt that it was important to monitor natural resource management expenditures in developing countries because of the policy implications.

65. A point was raised on the use of EPE accounts in conjunction with pressure-state response indicators. Environmental expenditures accounts could be linked with the emission accounts so as to see if the environmental control measures have been effective.

Session 9 – Selected Country Experiences on EPE

66. In this session the country experiences in compiling environmental protection expenditure accounts in Japan and in the Philippines were presented.

67. The representative of Japan presented the results of environmental protection expenditure accounts in Japan for the period 1990-1995 together with some comparisons with the accounts of Australia and Germany. He emphasized the importance of EPE to evaluate the relative national efforts for environmental protection, and also noted the importance of physical data related to environmental protection to analyze the cost effects of environmental control measures.

68. The representative of the Philippines introduced the general framework for EPE used in the Philippines. The results of the compilation of Government and Private environmental protection services for the period 1988-1994 were presented. It was noted that most of the environmental protection services are provided by the government and only a small part by the private sector. The environmental protection services in 1994 doubled the levels of 1988, but their contribution to the Gross Domestic Product (GDP), 0.15%, remained constant throughout the period of study. The presenter gave an overview on the survey used to compile environmental expenditures. It was noted that care is needed to interpret decreases in EPE.

Session 10 – Policy Uses and Applications

69. The representative from New York University presented policy uses and applications of the environmental accounts based on Chapter 6 of the draft SEEA manual, version of September 2000. Applications were discussed for asset accounts, physical and monetary flow accounts, and environmental protection expenditures. It was noted that the asset accounts can be used to provide a better indication of national wealth and sustainability, such as the value of total wealth, its distribution, volatility over time and the cost of depletion. It was mentioned that the asset accounts also contribute to a better management of wealth by monitoring whether resource rent is successfully recovered through taxes, whether rent is

used to promote sustainable development and the extent to which resource policies are economically efficient.

70. It was explained that physical and monetary flow accounts (a) provide a wide range of descriptive statistics including "eco-efficiency" profiles that provide a detailed understanding of the linkages between the environment and economic activity; (b) could be used to monitor progress towards achieving environmental goals; and (c) can be used with economic models to assess alternative options for future economic development. It was noted that the environmental protection expenditure accounts could be used to monitor the economic burden of pollution abatement costs. However, it was also emphasized that conceptual limitations restrict their usefulness for analyzing important issues such as the relationship between the cost of regulation and the benefit from an improved environment.

Open Forum

71. Countries expressed the concern in designing policies on polluting industries that produce goods for exports. It was noted that the SEEA is a useful tool in designing these policies as it puts in a common framework emissions by different industries, thus providing information on the source of emissions.

Session 11 – Country Experiences on Policy Applications

72. The representative of the Department of Environmental and Natural Resources presented the experience on Policy Applications in the Philippines. The results of four studies and the policy applications were presented. These studies were based the total economic value principle and the user-pays principle, and they focused on (a) the use of quantitative basis for the revision of entrance fees and taxes considered as resource rents for the use of forests, rivers, parks and beaches; (b) the determination of economic rent for the use of grazing lands through the land-value approach; (c) the use of opportunity cost method in the derivation of government share from energy resource extraction; and (d) the use of the marginal abatement cost approach to determine the user fees to be charged to the users of water and land resources as sink for waste.

73. A question was raised regarding the basis for determining the fees. It was clarified that for facilities user fees, a reasonable proportion of maintenance cost was used while for entrance fees it was the willingness of the visitors to pay for enjoying the area.

Session 12 – Sub-national Environmental Accounts

74. The Philippines presented two sub-national environmental accounts: the experience of the Cordillera region and the experience of the Palawan Province. The presentations provided a brief overview of the economic and environmental situation in the area, the rationale for sub-national environmental accounting, scope and coverage of the accounts, and the results of the study. The discussion focused on the methodology and some of the problems encountered in the compilation of selected asset accounts and the compilation of emission accounts.

75. An issue was raised regarding the accuracy of the data used in the compilation of sub-national accounts and the indicators considered in assessing possible effects of certain economic activities to the environment e.g. possible toxic waste generated by electronic-

industries (semiconductor) such as the methyl chloroform (tri-chloromethane substances) used as a cleaning solvent for computer hardware.

Sessions 13 - 14 – Valuation and Selected Country Experiences

76. The representative of the World Bank presented different methods of extending monetary accounts to include valuation of degradation. The presentation was based on Chapter 5 of the draft SEEA-2000, version of August 2000.

77. The two main approaches to the valuation of degradation were presented. The first approach is based on the cost to eliminate degradation. These techniques are referred to as *cost-based* methods. The second approach is based on the estimation of negative benefits or damages arising from degradation. These are referred to as *damage-based* methods. The presenter explained how to derive macro-aggregates based on both cost-based and damage-based method.

78. It was noted that some of these costs are already implicitly included in the market value of the assets, and therefore already in the conventional economic accounts. Moreover the various methods for valuing unpriced environmental services and assets suffer of several drawbacks such as coverage (some methods can only be used to value a very limited subset of environmental services and assets), incompatibility with the valuation principles of national accounts in terms of the time they refer to or the value they generate, and the difficulties and costs to obtain and interpret the basic data (physical and monetary) needed for these valuation methods.

79. The representative of the Resource, Environment and Economics Center for Studies, Inc., introduced the Philippine experience on environment and natural resource valuation based on the ENRAP Framework.

Open Forum

80. Some participants, in particular national accountants, expressed concern in integrating the valuation of non-market flows within the national accounts framework, as the valuation techniques are not fully consistent with the market valuation. Others welcomed the presentation of such techniques in the SEEA-2000. It was agreed that SEEA-2000 should include this chapter despite the controversial nature of the material.

81. Concern was expressed for the parameters of dose-response functions which are estimated in one country and applied to another.

82. The issue whether it would be a responsibility of statistical agencies or research institutions to carry out valuation studies was raised.

Session 15 – Institutionalization of the Philippine Economic-Environmental and Natural Resources Accounting (PEENRA) System

83. The representative of the Philippines gave an overview of what has been achieved towards the institutionalization of environmental accounting in the Philippines, and what the next steps are. It was noted that the results of different projects on environmental accounting and of various efforts of many governmental agencies were the following: (a) improved data

system; (b) stronger cooperation among parties involved through the creation of a steering committee with members from governmental and non-governmental sectors; (c) improved technical knowledge of environmental and national accounting through active participation to training workshops, technical assistance of experts from UNSD and other international experts, and practical training in developing environmental accounts; (d) enhanced legislative, administrative and financial support; and finally (e) compilation of environmental accounts and publication of the results with the technical assistance of UNSD. The most important results was the approval of an Executive Order (EO No 406) by the President in 1997 which institutionalized the PEENRA system and created a unit within DENR, NEDA and NSCB with the purpose of compiling environmental accounting and coordinate work and research in the field. Future work include: (a) improvement of the data quality, (b) expansion of the coverage of the accounts to include aquaculture, non-metallic resources etc., (c) testing different valuation techniques, and (d) continued training activities.

Session 16 – Organization of the Manila Group and The Way Forward

84. The session was chaired by Dr. Romulo A. Virola, Secretary General, NSCB-Philippines and included a Panel Discussion on the way forward. The Panel included representatives from Indonesia, Mongolia, Thailand and the Philippines and from international organizations ADB, ESCAP, UNSD, and the World Bank. It was noted that countries in the Asia Pacific region were in different stages of implementation of environmental accounting, with few of them being very advanced and some starting with the compilation of basic environment statistics. All countries indicated their interest in taking steps towards the compilation of environmental accounts. Given the complexity of environmental accounting and its wide scope, it was suggested that countries start implementing the accounts in stages choosing the priorities on the basis of their policy needs.

85. It was recognized that it was important for countries to meet on a regular basis to exchange their experiences in the compilation of the accounts and, at the same time, to be trained on the methodologies of environmental accounting. Also, the importance of country visits as well as technical assistance to countries was emphasized. It was suggested that a formal network be created to facilitate the communication among the countries in order to advance environmental accounting in the Asia Pacific region. The name of the network would be Manila Network or Manila Forum on environmental accounting. There was some discussion on the objectives of the Network/Forum and the consensus emerged that it should maintain a clear focus, namely environmental accounting with all countries working towards achieving the same goals. Improved environment statistics will be an indirect result of the implementation of the environmental accounts.

86. It was proposed that NSCB serve as Secretariat of the Network/Forum and the meeting accepted the proposal. NSCB offered to develop a web page to facilitate the exchange of information. Several participants expressed the need to develop detailed terms of reference for the network, identifying the goals of the group and the roles and responsibilities of each player. Membership of the group would be open mostly to countries of the Asia-Pacific region. The proposal to create the Manila Network/Forum would be presented at the ESCAP Committee on Statistics in November 2000 and the meeting of the heads of ASEAN countries in December 2000.

87. As the participants in the workshop were not in the position to commit their country to participate in the Network/Forum, it was suggested that NSCB would draft a paper describing the goals and the terms of reference of the Network/Forum. This paper would be

circulated to the countries and discussed in the next meeting on Environmental Accounting in the Asia-Pacific region. Indonesia and Australia have tentatively offered to host future meetings of the Network/Forum.

88. The international agencies welcomed the initiative of creating a Network/Forum of countries in the Asia Pacific region. The representative of UNSD mentioned that as part of the project "Strengthening Regional Capacities for Statistical Development in South East Asia", UNSD was prepared to co-organize a workshop with the host country, possibly Indonesia, in 2002. Moreover, as part of the same project, she mentioned that there is provision for fellowships for ASEAN countries to visit other ASEAN countries or other countries in the region (e.g. Australia). Some country representatives perceived that the SEEA did not recognize sufficiently the practical difficulties of obtaining relevant data and of securing resources to compile the accounts and requested that UNSD and/or ESCAP provide technical advisory services in environmental statistics and accounting for the countries in the region. ADB has until present been involved in the development of environment statistics, which constitute the necessary information for the compilation of environmental accounting. However, ADB may be prepared to fund selected projects on specific modules of the environmental accounting, upon submission of a detailed plan of action. The group was informed by NSCB that UNDP had expressed willingness to fund similar fora on environmental accounting through the UNDP offices in various countries.

89. In the closing ceremonies, Mr. Kusmadi Saleh of Indonesia delivered a message. He commended the efforts of the Philippines in organizing the workshop which was timely and relevant. Finally, he expressed interest in hosting the next workshop to be conducted in Indonesia. In the closing remarks, Dr. Romulo Virola of the Philippines thanked the participants and its co-sponsors for the success of the workshop. Ms. Alfieri from UNSD thanked NSCB for their work in the organization of the workshop. She also thanked the participants and the representatives of the London Group for their participation in the workshop.

90. The workshop ended with a closing dinner. Mr. Tomas Africa, Administrator of the National Statistics Office (NSO), Philippines delivered the message on behalf of Honorable Congressman Manuel Villar, Speaker of the House of Representatives, Philippines. In his message, he encouraged the group to capitalize on combined strength among countries in making the future efforts of the Manila Network progress to even more relevant accomplishments. He also recognized that future collaboration between countries is necessary. Finally, he thanked the organizers, sponsors and participants of the workshop.

Summary of the Comments on the SEEA-2000

Chapters 1- 6 of the SEEA-2000 (May and September version) were presented at the Workshop with the objective of obtaining feedback from the countries attending the Workshop. The Workshop is one of the activities envisaged in the consultation process of the revision of the SEEA.

The discussion focused primarily on the following issues:

Chapter 1: The SEEA framework was very well received by the participants as a coherent system to organise the environmental information using definitions and classifications consistent with the System of National Accounts (SNA). There was some discussion on the definition of sustainability (weak and strong). In particular, it was suggested that the sustainability concept be used as a common thread in the manual.

There was a concern that the manual did not recognise sufficiently the practical difficulties of obtaining relevant data and securing resources to compile the accounts. The danger was that the accounts might just be seen as purely aspirational and hence ignored in favour of more pragmatic solutions. Some attention to the ways in which the framework and modules might be adapted to meet the needs of countries with fewer resources would help the SEEA to become more widely adopted.

There was strong interest in the development of sub-national accounts, although it was recognised that they could be problematic where natural boundaries such as watersheds did not coincide with administrative boundaries. Such accounts were more practicable where the regions were distinct geographic entities such as islands.

There was also considerable discussion on the institutional aspects related to the implementation of environmental accounting. It was generally felt that the environmental accounts unit should be located within the national statistics institute, and it was recognised that it is essential to have good access to environmental statistics and cooperation with environmental agencies.

Chapter 2: Compilation of asset accounts in physical and monetary terms remains one of the highest priorities for the countries in region. Therefore, there was a general feeling that the material on monetary and physical asset accounts should be presented together. Also, presentation of examples on how to compile asset accounts for selected resources in physical and monetary terms was preferred.

Classification of environmental assets: Some participants expressed some concerns that the classification of environmental assets does not explicitly distinguish between economic and non-economic assets. The national accountants in the meeting found useful to have a clearer distinction between what is included in the SEEA asset boundary and what is not.

Economic Valuation: Although there was agreement that the net present value is the correct valuation method for resource stocks, concern emerged on the difficulty of the choice of the discount rate and the consequences of this choice. The SEEA suggests that countries choose either a social or a business discount rate, which may be significantly different thus leading different results. Countries would like more guidance on the choice of the discount rate.

Depletion: Countries are aware that there is no unique approach to calculating depletion. They therefore favored the presentation of different approaches for the calculation of depletion.

Calculation of the accounts in constant price: The need to calculate the accounts in constant price was expressed. This is a problem in particular for countries in transition with very high inflation.

Valuation of water: It was noted that although the valuation of water is very controversial and there is little practical experience, it is an important issue in policy analysis. It was thus recommended that this issue be addressed in the SEEA-2000.

Chapter 3: The Workshop recognized the full accounts described in Chapter 3 were demanding and difficult to follow. It would help if the chapter could be simplified, possibly starting with the description of simple modules and then extending it to more complex ones. A suggestion would be to start with emission and energy accounts and then continue with physical Input-Output Tables (PIOT) and Material Flow Accounts (MFA).

Chapter 4: Environmental protection expenditures did not appear to be a high priority area for the countries in the South East Asia region. The experience of Australia, Japan and the Philippines have shown the difficulties in interpreting the results of the compilation of environmental protection expenditure (EPE) accounts. It was recommended that policy relevance and interpretation should be established before countries embark on compiling EPE. The experience of the Philippines, in particular, has shown that the cost of the survey may over- run the benefits, as the results have shown that environmental protection expenditures represent only 0.15% of GDP. Such a low figure may also represent an incomplete understanding of the survey by the industries and may not capture changes in behavior.

Chapter 5: Some participants, in particular national accountants, expressed concern in integrating the valuation of non-market flow within the national accounts framework, as the valuation techniques are not consistent with the market valuation. Others welcomed the presentation of such techniques in the SEEA-2000. It was agreed that SEEA-2000 should include this chapter despite the controversial nature of the material.

Chapter 6: Countries welcomed the focus on policy uses and applications of the SEEA-2000 and stressed the importance of linking each chapter/module to its uses in policy making.

Glossary: The need for a glossary was stressed as the terminology that environmental accountants use may be different from the terminology used by environmental specialists.

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ANNEX 2: PROGRAMME OF ACTIVITIES

INTERNATIONAL WORKSHOP ON ENVIRONMENTAL AND ECONOMIC ACCOUNTING
18 - 22 September 2000
Westin Philippine Plaza Hotel, Manila, Philippines

PROGRAMME OF ACTIVITIES

Day/Time	Session	Speaker	Session Chair
Day 1 - September 18 (Monday)			
08:00 - 09:00	Registration		
	Opening Ceremony		
09:00 - 09:10	Opening Remarks	**Hon. Romulo A. Virola** Secretary-General, NSCB *Philippines*	
09:10 - 09:20	Messages	**Hon. Antonio H. Cerilles** Secretary Department of Environment and Natural Resources *Philippines*	
09:20 - 09:30		**Hon. Terence D. Jones** Resident Representative *UNDP Manila*	
09:30 - 09:40		**Hon. Hermann Habermann** Director *UNSD New York*	
09:40 - 09:50		**Hon. Andrew J. Flatt** Director, Statistics Division *UN-ESCAP Bangkok*	
09:50 - 09:55	Introduction of the Keynote Speaker	**Hon. Tomas P. Africa** Administrator, NSO *Philippines*	
09:55 - 10:15	Keynote Address	**Hon. Felipe M. Medalla** Secretary of Socioeconomic Planning *Philippines*	
10:15 - 10:30	Break		
10:30 - 10:40	Objectives of the Workshop	**Carmelita N. Ericta**	

		Philippines	
10:40 - 12:30	Introduction of Participants/Country Presentations	**Country Representatives**	**Romulo A. Virola** *Philippines*
12:30 - 14:00	Lunch Break		
14:00 - 15:10	Country Presentations	**Country Representatives**	
Day 1 - September 18 (Monday) ***Continuation***			
15:10 - 15:55	**Session 1 - From the System of National Accounts (SNA) to the Integrated Environmental and Economic Accounting (SEEA)**	**Heidi Arboleda** *UN-ESCAP*	**Alessandra Alfieri** *UNSD*
15:55 - 16:10	Break		
16:10 - 16:55	**Session 2 - Integrated Environmental and Economic Accounting SEEA-2000 Framework**	**Rocky Harris** *United Kingdom*	**Alessandra Alfieri** *UNSD*
16:55 - 17:15	Open Forum		
	Session 3 - Selected Country Experiences (Frameworks)		**Ernesto Gonzales** *Philippines*
17:15 - 17:35	- The Philippine System of Integrated Environmental and Economic Accounting (PSEEA)	**Estrella V. Domingo** *Philippines*	
17:35 - 17:55	- The Philippine ENRAP Project	**Marian de los Angeles** *Philippines*	
17:55 - 18:15	- Australia	**Bob Harrison** *Australia*	
18:15 - 18:30	Open Forum		
18:30 - 20:30	Welcome Reception - Cocktails	*To be hosted by the Hon. Antonio H. Cerilles, Secretary, DENR, Philippines*	
Day 2 - September 19 (Tuesday)			
08:30 - 09:15	**Session 4 - Environmental Asset Accounts**	**Alessandra Alfieri** *UNSD*	**Heidi Arboleda** *UN-ESCAP*
	Session 5 - Compilation of Resource Accounts (Selected Case Studies)		**Heidi Arboleda** *UN-ESCAP*
09:15 - 10:15	***Mineral and Energy Resource Accounts*** Introduction	**Alessandra Alfieri** *UNSD*	
	- Australia	**Bob Harrison**	

		Australia
	- Mongolia	**Ykhanbai** *Mongolia*
10:15 - 10:30	Break	
10:30 - 11:30	- Southern Africa	**Glenn Marie Lange** *New York University*
	Open Forum	
11:30 - 12:30	***Forest Resource Accounts***	
	Introduction	**Alessandra Alfieri** *UNSD*
	- Indonesia	**Kusmadi Saleh** *Indonesia*
	- Mongolia	**Ykhanbai** *Mongolia*
	Open Forum	
12:30 - 14:00	Lunch Break	
14:20 - 15:20	***Fishery Resource Accounts***	**Kusmadi Saleh** *Indonesia*
	Introduction	**Alessandra Alfieri** *UNSD*
	- Namibia	**Glenn Marie Lange** *New York University*
	- Philippines	**Vivian R. Ilarina** *Philippines*
	Open Forum	
15:20 - 16:20	***Land/Soil Resource Accounts***	
	Introduction	**Alessandra Alfieri** *UNSD*
	- Philippines	**Estrella V. Domingo** *Philippines*
	- Mongolia	**Ykhanbai** *Mongolia*
	Open Forum	
16:20 - 18:00	**Workshop/Exercise on Asset Accounts**	Facilitator: **Alessandra Alfieri** *UNSD*

Day 3 - September 20 (Wednesday)

8:30 - 09:45	**Session 5 - Compilation of Resources Accounts (Selected Case Studies)**	
	Water Resource Accounts	
	Introduction	**Ilaria Di Matteo** *UNSD*

	- Australia	**Bob Harrison** *Australia*	
	- Southern Africa	**Glenn Marie Lange** *New York University*	
	Open Forum		
09:45 - 10:00	**Photo Session**		
10:00 - 10:15	Break		
10:15 - 11:15	**Session 6 - Physical Flows and Energy Accounts**	**Rocky Harris/Bob Harrison**	**Glenn Marie Lange** *New York University*
11:15 - 12:00	**Session 7 - Selected Country Experiences on Physical Flows**		
	- Australia	**Bob Harrison** *Australia*	
	- Thailand	**Chanmong Paungpook** *Thailand*	
	Open Forum		
12:00 - 13:30	Lunch Break		
13:30 - 14:30	**Session 8 - Environmental Protection Expenditures (EPE)**	**Bob Harrison** *Australia*	**Carmelita N. Ericta** *Philippines*
14:30 - 15:30	**Session 9 - Selected Country Experiences on EPE**		**Carmelita N. Ericta** *Philippines*
	- Japan	**Kengo Akashi** *Japan*	
	- Philippines	**Marriel M. Remulla** *Philippines*	
	Open Forum		
15:30 - 15:45	Break		
15:45 - 16:45	**Session 10 - Policy Uses/Applications**	**Glenn Marie Lange** *New York University*	**Ramon J.P. Paje** *Philippines*
16:45 - 17:30	**Session 11 - Country Experiences on Policy Applications**		
	- Philippines	**Sabado T. Batcagan** *Philippines*	
	Open Forum		

Day 4 - September 21 (Thursday)

08:30 - 09:30	**Session 12 - Subnational Environmental Accounts**		**Modesto Borja** *Philippines*
	- The Palawan Experience	**Adelwisa Sandalo** *Philippines*	

	- The Cordillera Experience	**Benjamin Navarro** *Philippines*	
	Open Forum		
09:30 - 10:45	**Session 13 - Valuation**	**Kirk Hamilton** *World Bank*	**Nicomedes D. Briones** *Philippines*
10:45 - 11:00	Break		
11:00 - 12:00	**Session 14 - Selected Country Experiences on Valuation**		**Nicomedes D. Briones** *Philippines*
	- The Philippine Experience	**Marian de los Angeles** *Philippines*	
	Open Forum (20 min)		
12:00 - 12:30	**Session 15 - Institutionalization of the Philippine Environmental-Economic and Natural Resources Accounting (PEENRA) System**	**Sylvia M. de Perio** *Philippines*	**Cristino Collado** *Philippines*
	Open Forum (15 min)		
12:30 - 14:00	Lunch Break		
14:00 - 17:30	**Session 16 - Organization of the Manila Group and The Way Forward**	**Estrella V. Domingo** *Philippines* **Panelists:** **Kusmadi Saleh** *Indonesia* **Kim Youngtai** *Korea* **Estrella V. Domingo** *Philippines* **Bob Harrison** *Australia* **Gina Marie Umali** *ADB* **Kirk Hamilton** *World Bank* **Alessandra Alfieri** *UNSD* **Heidi Arboleda** *UN ESCAP*	**Romulo A. Virola** *Philippines*
Day 5 - September 22 (Friday)			
09:00 - 11:00	**Session 18 - Adoption of the Report** **a) Workshop** **b) Manila Group**	**Romulo A. Virola** *Philippines*	

11:00 - 11:30	**Closing Ceremony**	
	Message	**Kusmadi Saleh** *Indonesia*
	Closing Remarks	**Romulo A. Virola** *Philippines*
11:30 - 13:00	Lunch Break	
13:00 - 18:00	**City Tour**	
19:00 - 21:00	**Dinner at the Leyte-Samar Room**	
	Introduction of Guest Speaker	**Estrella V. Domingo** *Philippines*
	Message	**Hon. Manuel B. Villar** Speaker of the House of Representatives *Congress of the Philippines*
	Cultural Presentation/Dinner	**TRIBU Cultural Group**