



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS  
STATISTICS DIVISION  
UNITED NATIONS

**UNSD Workshop on Environment Statistics  
for South-East Asian Countries**

**Hanoi, Vietnam, 5 - 7 December 2011**

**Report of the Workshop**

## **UNSD Workshop on Environment Statistics for South-East Asian Countries**

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### **Report of the Workshop**

#### **I. Summary**

1. The Workshop was organized by United Nations Statistics Division (UNSD) in collaboration with the General Statistics Office of Vietnam and was held at the Flower Garden Hotel in Hanoi. The Workshop was attended by 17 participants from National Statistical Offices (NSOs) and Ministries of Environment or other relevant line ministries from five countries (three national delegates each from Cambodia, Laos, Timor Leste and Myanmar, and five from Vietnam). A representative of the United Nations Environment Programme Regional Office for Asia and the Pacific (UNEP-ROAP) and a staff from UN ESCAP Statistics Division also participated in the Workshop. Overall, the total number of participants including UNSD staff was 21.

2. In the opening session, the Workshop was inaugurated by the introductory remarks by Ms. Tran Thi Hang, Deputy Director General of the General Statistical Office of Vietnam and by Ms. Eszter Horvath, Chief of the Environment and Energy Branch of UNSD. The objectives and agenda of the Workshop were reviewed and adopted and a round of self introductions from the participants was undertaken.

3. The general goals of the 3-day Workshop were to review the most important environmental concerns in the sub-region, review the state of environment statistics in the five countries, provide fundamental knowledge in the field, and assess the needs and resources to engage in future technical assistance and capacity building.

4. The workshop included six sessions focusing on: the assessment of the state of, and need for, environment statistics in the region and in the five countries; the fundamentals of environment statistics; existing methodological resources for the production of environment statistics including the UNSD Questionnaires; review of new developments in methodology, in particular the revision of the FDES and the Core Set of Environment Statistics; requirements for training and capacity building in environment statistics.

5. The participants worked together as national teams elaborating their national presentation according to the directions that had been sent to them in the preparatory phase. The participation of the two regional bodies was very important in deepening the understanding of the most important environmental issues and challenges for the participating countries.

6. While there are differences in the advancement of environment statistics and the role of NSOs in environmental information among the five countries, it can be stated that, with the exception of Vietnam, official environment statistics is not institutionalized or is at a very early stage of development, and the statistical infrastructure in general requires substantive further

development. While there is a considerable amount of information relevant for environment statistics, most of it has been compiled, usually by the ministries of environment, on an ad hoc basis from secondary sources for the purposes of national environmental performance assessments or state of the environment reports supported by international donors.

7. At the final session, important elements were put forward about technical assistance needs. The identification of requirements can serve as a basis to identify resources to further technically assistance to these countries in the organization and development of the production of environment statistics.

## **II. Session I: The situation of the South-East Asia region**

8. This session consisted of presentations from a regional perspective, covering an overview of the most important environmental concerns in the region and the sub-region and a review of the state of the art of the relevant statistics in the sub-region of South East Asia.

9. The representative of UNEP-ROAP made a presentation describing UNEP's priority areas, their collaboration with the countries on the national environmental performance assessments and the need of environmental information and statistics from the user's perspective, detailing the main themes requiring further development in the field of environment and sustainable development for the Asia Pacific in general, and for the participating countries in particular.

10. Questions and comments followed about the main issues presented, discussing the relevance and state of the six UNEP priority areas, namely: climate change; disasters and conflicts; environmental governance; ecosystems management; harmful substances and hazardous wastes; resource efficiency and sustainable production and consumption patterns, in the five participating countries, and the state of environment related statistics informing about these issues.

11. The representative of UN ESCAP made a presentation about the legal and institutional framework and existing capacities for statistics in the countries participating in the workshop. She made a brief comparison of the environmental situation, similarities and differences, of the five countries. At the regional level, the ESCAP Committee on Statistics agreed to have by 2020, a basic range of statistics in population, economic, social and environment statistics, although further work on the latter domain has not been advanced, nor a regional core set of environment statistics has yet been put forward. How in the official documentation of the countries the domain of environment statistics is or is not considered was illustrated by using a synthesis table. The environment statistics compiled for and disseminated in the ESCAP Statistical Yearbook were also presented, all based on international sources, covering the areas of environmental pollution, forests, biodiversity, natural disasters, and water resources. Finally the main challenges for environment statistics in the region were summarized.

## **III. Session II: The fundamentals of environment statistics**

12. UNSD delivered a presentation covering fundamental concepts and aspects of environment statistics, including its definition, objective and scope, and the relation of

environment statistics with economic and social statistics. A general description of the domain of environment statistics was given including the types of environment statistics, their spatial and temporal aspects, the different sources of environmental data, as well as a brief introduction to the users, uses and products of environment statistics. Finally, the institutional dimension of environment statistics and the need for coordination and collaboration of national stakeholders was discussed.

13. The participants showed high interest about the introduction to the main aspects of the domain, and recognized the importance of capacity building in depth, perhaps at a future workshop. It was made clear that detailed description of concepts and data collection and production mechanisms in the field were going to be described in later sessions in the workshop.

#### **IV, Session III: The situation in the five participating South-East Asian countries**

14. The participating countries delivered national presentations jointly prepared by the NSOs and the relevant line ministries covering the main environmental concerns, the developments and challenges of environment and related statistics in their countries and some elements about the way forward.

15. Environmental pollution, the loss of biodiversity, environmental security, environmental management and the communities' role, and the impacts of pollution are the main environmental pressures in *Vietnam*. A "National Statistics and Indicator System" was adopted in 2010, coordinated by the General Statistical Office and requiring the participation of line Ministries. Of these, consisting of 350 indicators, of which 54 indicators are related to the environment. The environmental indicators are to be compiled by the GSO from 7 line ministries. 16 out of the 54 environmental indicators are not possible to compile due to the unavailability of data, while the coverage or breakdown of many other environmental indicators are not satisfactory. The themes covered are air, water, land biodiversity, forest, energy, agriculture, transport, waste and climate. The Ministry of Natural Resources and the Environment uses an indicator system consisting of 231 indicators, with 40 indicators on the environment. In general, among the most important limitations to advance work in the environment statistics domain the technical capacities of staff in this specific realm, the financial insufficiency of resources and still insufficient institutional coordination at the sub-national level were mentioned. There is an environment statistics unit established in the department of social statistics at the GSO.

16. *Cambodia* presented the legal framework of environmental regulations and their statistical law. As far as information and statistics on the environment are concerned, those are mostly collected by the line ministries and are not brought together in a systematic and regular fashion. Available information is mostly about environment pollution (emission inventory and waste data for the Capital), forest and biodiversity and water, primarily produced in different line ministries and reported in publications, Future work considers training, national and sub-national capacity building, environmental surveys development and production of environment statistics.

17. The *Lao* team presented the legal framework for environmental policy and for statistics. A State of the Environment Report has been prepared in 2001 focusing on the themes of deforestation, water resources, biodiversity, land degradation and issues of the urban environment. Environmental performance assessment reports were prepared in 2006 and 2011, focusing on forests, water, fish resources, biodiversity, land degradation, waste, hazardous

substances and climate change. The DPSIR model was used for the analyses. The presentation provided illustrations of available data on wastewater, air quality, soil contamination, solid waste and water quality. The Lao Department of Statistics was established in 2008, and the Lao Statistics Bureau in 2010. There is no unit dedicated to environment statistics. Some environmental statistics have been published in the Statistical Yearbook of the Statistics Bureau (i.e., temperature, solar radiation, rainfall and other data) primarily reported by the Department of Meteorology and Hydrology, Water Recourse and Environment Administration).

18. The presentation by the *Myanmar* team described the national environmental policy and sustainable development strategy and the two national environmental performance assessment reports prepared within the frame of two projects funded by ADB. They used the DPSIR model for the selection of indicators for the assessments that focused on the issues of forest resources, water resources and quality, land degradation, climate change, solid waste, biodiversity and the environmental impacts of mining. The indicators were based on available secondary sources including official statistics but the compilation of the indicators is ad hoc and they are not produced in a regular, systematized manner. There are at least 40 different sources of environmental data under 24 ministries. A national coordination centre should be set up for the development of environment statistics.

19. *East Timor* reported that they had not yet started the development of environment statistics as a specific domain within their emerging statistical systems. Nevertheless, they consider the production of environment statistics highly important for their environmental concerns and policy agendas. The most pressing environmental issues in East Timor are: deforestation and the resulting siltation; air pollution, flooding, diseases, groundwater pollution and soil pollution due to inadequate waste management; the environmental impacts of mining, and air pollution caused by traffic. The presentation described the legal framework of environmental regulations and concluded with summarizing the main challenges for environment statistics, such as low priority given to this area as compared to economic and social statistics that are also just developing in this new country; the lack of resources, and the low priority given to environmental issues in general.

20. The main points raised during presentations and discussion included the recognition of the heterogeneous levels of statistical and environment statistics development within the five countries, the increasing need to produce statistics informing about the most pressing environmental issues according to the priorities of each country, the frequent practice in all five countries of collecting environment data from secondary sources in an ad hoc manner (i.e., for the purpose of producing State of the Environment Reports or similar), the recognition of the current very limited data availability in the different environmental issues, the recognition of the need for environment statistics training and capacity building and the need to continue to work with the NSO and the environmental authority and other related bodies in order to work in this domain.

## **V. Session IV: Methodological guidance in the field of environment statistics**

21. In the first part of this session, UNSD made a presentation covering the general methodology of the production of environment statistics, from micro-data and data through validation, editing, structuring, and analysis to dissemination and/or further aggregation to

generate indicators. To provide illustration of the process from start to results, the methodology was illustrated by a case of forest statistics.

22. The second part was devoted to the description of the most important existing and developing classifications used by or produced for the purpose of environment statistics, through a presentation made by UNSD. The presentations covered the environment statistics classifications developed by UNECE through the late eighties and nineties; ongoing work on environmental classifications; economic and social statistical classifications the use of which enhances the potential of the integration of environment statistics with economic and social statistics, as well as the (non-statistical) classifications embedded in different multilateral environmental agreements and related reporting obligations.

23. In the third part of this session, UNSD delivered another presentation covering emerging new tools of conceptual and methodological guidance currently under development or revision and soon to be made available in the field of environment statistics, covering the current process of the revision of the FDES and the development of the Core Set of Environment Statistics.

24. Participants showed high interest in the technical aspects. The questions and comments during the discussion mostly related to the process and the contents of the FDES, and especially to the development of the Core Set of Environment Statistics. It was agreed that the establishment of the Core Set will give a good starting point for the NSOs to get the other stakeholders on board and engage them in a collaborative process. The participants stated their interest in participating in the global consultation on the FDES and the Core Set in 2012.

25. The fourth part of the session covered a description of other relevant methodological and practical resources currently available, by presenting the UNSD environment statistics websites. Particular emphasis was placed on the available methodological material, the country snapshots, the environmental indicators (including their metadata) and the Questionnaires with their guidance material as possible useful resources for the countries.

26. The final part of the session consisted of a UNSD presentation of other international sources of environment statistics, in which the countries were shown how to access both data and metadata on key environment statistics themes at the websites of international organizations and other relevant institutions active in the different environmental subject areas.

27. Questions and comments were presented along each part of this session, and consisted mainly about clarification points and requirements of further information.

## **VI. Session V: UNSD/UNEP Questionnaire on Environment Statistics**

28. UNSD delivered a series of presentations describing in detail the UNSD-UNEP questionnaire on environment statistics, as a methodological tool to introduce environment data collection concepts, units of measurements and relation among variables.

29. The first presentation covered the tables on Water and Waste, the two topics that have been the permanent parts of the data collection. The relevance of the variables, their

classifications, the interrelationships among the tables, the sources of data as well as the most common difficulties were described and illustrated.

30. Secondly, UNSD presented the tables of the questionnaires Air, Water Quality and Land (and the draft on natural disasters) the collection of which had been discontinued, or not started, to avoid duplication with other international agencies. While currently not used for data collection, these questionnaires provide a good starting point for developing the relevant national environment statistics.

31. The countries were very interested in accessing the Questionnaires as their definitions, structures and classifications were of high interest as a basis to better understand data production and collection. It was agreed that targeted training workshops, focusing on the questionnaire tables, should be organized and more detailed compilation manuals would be needed. On the other hand, the participants agreed that the questionnaires are very demanding and they will continue to have serious problems with completing them.

## **VII. Session VI: Assessment of requirements, potential and resources for the production of environment statistics in the participating countries**

32. In the last session of the workshop, UNSD facilitated a round table to exchange ideas and visions and agree on the conclusions and recommendation of the Workshop. The discussion was very lively and all participants were engaging in its different aspects. The main conclusions and recommendations are described in the following paragraphs 33-45.

## **VIII. Main conclusions**

33. There was unanimous appreciation of UNSD for organizing this training in the very important domain of environment statistics, which is fairly new area in the participating countries. Participants especially welcomed the idea of bringing together the main national stakeholders (NSOs and the relevant ministries) in the workshop. For some of the countries this was the first time that the NSO worked with the environmental ministry.

34. It was evident that countries are at heterogeneous levels of development, where some are not producing any environment data, while two countries have already produced indicators, however in a ad hoc manner, for example for the purpose of publishing their State of the Environment Report. As it is common in these cases, the data sets produced by the environmental authority were not properly stored, nor metadata were produced, so when the NSO tried to recover these sets of information, they found they were essentially lost.

35. There was also clear determination to move on with developing environment statistics. This included even the countries that are not yet producing environment statistics because of its key importance considering the main environmental concerns of the region. For example, Myanmar mentioned that they are developing a new environmental law and said that they will try to incorporate the need for producing environment statistics and information about the environment as a key task.

36. Capacity building, technical assistance and training on methodologies and best practices are of the utmost importance to the five countries. Both country level training and technical assistance (since in this manner participation of the other stakeholders and the provinces is enabled) and sub-regional training are key investments equally required as they serve complementary objectives.

37. All countries recognized the need to establish national committees or round tables to work together to develop environment statistics at the national level, including NSOs, Environmental Ministries and other relevant line ministries and institutions.

38. As reported by UNESCAP, the 2010 Committee on Statistics for the Secretariat they agreed to move forward in the field of environment statistics but they have not made significant progress. While they developed a core set of economic statistics and are developing one for social statistics, there is not yet a core set for environment statistics for the region; therefore they very much welcome the UN work on the Core Set of Environment Statistics and would be ready to test it within the region. Currently, UNESCAP Division of Statistics compiles selected environmental indicators from international sources and disseminates those in their database and compendia. Further and pronounced national engagement seems necessary for the regional commission to mobilize resources and strengthen their programme on environment statistics.

## **IX. Recommendations**

39. UNEP ROAP was asked to consider the involvement of NSOs of the five countries in their activities that require environment statistics and information. Particular mention was made about the production of national environmental reports and assessments.

40. All countries expressed their wishes of continuation of the technical support in this area, and invited UNSD to organize a follow up workshop within a year and to continue training through the organization of a longer term sub-regional capacity building project. They recommended to consider the elaboration of a mid term program including technical assistance to countries, training workshops and sub-regional workshops to share best practices and know how for the South East Asia countries. National participants should include both NSOs and Environment Ministries.

41. The participants agreed that for capacity building purposes, working with a defined set of environment statistics and indicators, such as the emerging UN Core Set of Environment Statistics, is the right way to go.

42. To attain critical mass for capacity building and be better able to mobilize resources, it was recommended to widen the scope of the participating countries to cover the entire South East Asia sub-region. This sub-region share common environmental concerns and by incorporating countries that are relatively more advanced in terms of statistics, they can also provide South-South cooperation to their partners in the region.

43. Since UNSD has the technical capacities but not sufficient funding to undertake such program, it would be necessary to substantiate a sub-regional project on environment statistics for

the sub-region, in partnership with the regional bodies and the national NSOs and Environmental Ministries, so that financial support from donors can be mobilized over a 3 to 5 year period.

44. In future activities, with regard to partners to enable the continuation and expansion of capacity building activities in the sub-region, the participants agreed to approach ADB to explore partnership potential and to continue to coordinate and collaborate with the pertinent regional bodies.

45. Meanwhile it is very important to advocate with directors of NSOs and intergovernmental bodies about environment statistics in the region's countries as well as at the regional level. Most regional bodies and donors will mobilize technical and financial resources where explicit demand is raised through official channels within the statistical, development and environmental bodies.

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