Economic and Social Commission for Asia and the Pacific
Committee on Statistics

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Regional initiatives: environment statistics

A strategic approach to improving environment statistics in Asia and the Pacific

Note by the secretariat**

Summary

Recent international events, not least the United Nations Conference on Sustainable Development, have highlighted the need for integrated statistics to better illuminate complex, multi-dimensional development issues. Consultations on the formulation of sustainable development goals and targets, which the Conference called for, have pointed to a number of statistical measurement challenges, many of which pertain to proposed targets that relate to two or all three pillars of sustainable development.

Echoing these global consultations, a number of seminars, expert meetings and workshops on environment statistics that were held in the Asia-Pacific region during the past two years have demonstrated a growing demand at the national level for increased integration of environmental data within statistical systems.

Furthermore, the Expert Group Meeting on Statistics and Data for the Post-2015 Development Agenda: Implications for Regional Collaboration on Statistics in Asia and the Pacific, which was held in Bangkok on 9 and 10 December 2014, pointed to the need for more integrated approaches to improving statistics capacity. In that regard, the Meeting emphasized the importance of institutional arrangements that support national statistical offices in taking the lead in coordinating the national statistical system. The Meeting also called for added emphasis to be placed on implementation of statistical standards and guidelines that can function as organizing frameworks for integration.

As a consequence of that decision — together with the fact that, as leaders of national statistical systems, members of the Committee are well placed to forge institutional and methodological integration at the national level — the present paper proposes that efforts to strengthen environment statistics in the region focus on integrated statistics. Such an approach would build on a number of existing initiatives and take advantage of the recent development of supportive global statistical

* E/ESCAP/CST(4)/L.1.

** The present paper was submitted late owing to the need to include the issues raised during the latest discussions on the development agenda beyond 2015; in particular, the recommendations of the Expert Group Meeting on Statistics and Data for the Post-2015 Development Agenda, and the Secretary-General’s Independent Expert Advisory Group on the Data Revolution for Sustainable Development.
standards and guidelines, such as the Framework for the Development of Environment Statistics and the System of Environmental-Economic Accounting. Both emphasize the central importance of meeting analytical demands by improving capacity to integrate information from across the national statistical system.

The Committee is invited to consider the proposed approach for approval and provide guidance on its implementation.

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I. Introduction

1. The United Nations Conference on Sustainable Development, which was held in June 2012, was a milestone in increasing demand for integrated statistics on the environment, the economy and social development.

2. The Conference reaffirmed a global commitment towards sustainable development, particularly identifying green economy policies as a tool for achieving sustainable development, and recognizing the natural environment as a critical input for human well-being. The Conference created momentum for improving capacities for producing and analysing environment statistics and for developing broader measures of progress beyond gross domestic production. It also requested the United Nations to develop a set of sustainable development goals to follow the Millennium Development Goals in 2015.

3. In December 2012, the Committee on Statistics deliberated on environment statistics capacity in the region, while bearing in mind ongoing global developments.¹

¹ E/ESCAP/CST(3)/17.
4. The Committee stressed the need for national statistical systems in the region to improve their capacity to produce and disseminate basic environment statistics. While noting that countries in the region were at different stages in developing environment statistics, the Committee emphasized a pressing need for increased knowledge of present and emerging international methodologies and agreed standards and guidelines, such as the Framework for the Development of Environment Statistics and the System of Environmental-Economic Accounting. Given that countries would continue to face diverse environmental challenges, the Committee also recognized the need for flexibility in approaches to strengthen environment statistics. It recommended that the Bureau, with the support of the secretariat, explore the development of a regional strategy for the improvement of environment statistics.

5. The present paper aims to support deliberations and decisions by the Committee on a regional strategy for strengthening environment statistics, bearing in mind the emerging development agenda beyond 2015, which points to the need for deepening efforts to produce statistics to support analysis of the interrelations among the three pillars of sustainable development so as to inform policymaking.

II. Complex policy challenges and new demands for statistics

6. The synthesis report of the Secretary-General on the development agenda beyond 2015, “The road to dignity by 2030: ending poverty, transforming all lives and protecting the planet”, states:

   Sustainable development must be an integrated agenda for economic, environmental and social solutions. Its strength lies in the interweaving of its dimensions. This integration provides the basis for economic models that benefit people and the environment; for environmental solutions that contribute to progress; for social approaches that add to economic dynamism and allow for the preservation and sustainable use of the environmental common; and for reinforcing human rights, equality and sustainability. Responding to all goals as a cohesive and integrated whole will be critical to ensuring the transformations needed at scale.

7. Among other inputs, the synthesis report takes into account the sustainable development goals and targets proposed by the Open Working Group of the General Assembly on Sustainable Development Goals, which was established in January 2013 as part of the follow-up to the outcomes of the United Nations Conference on Sustainable Development.

A. Statistics requirements to respond to policy needs

8. In August 2014, the Open Working Group made a proposal for 17 sustainable development goals, each with associated targets, for the development agenda beyond 2015. The proposal implies new requirements for environment statistics, especially related to bridging data from multiple sources to enable integrated analysis of economic, social and environmental perspectives.

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2 A/69/700, para. 82.
3 A/68/970.
9. The demand for integrated statistics is inherent in the targets associated with nearly all of the proposed sustainable development goals. For example, the proposed sustainable development goals include targets pertaining to accessibility to natural resources as well as sustainability and efficiency of flows of inputs from the environment into society. This duality is particularly explicit in proposed goal six, on water and sanitation, and goal seven, on energy, with the targets capturing the social, economic and environmental aspects of natural resource use.

10. Those dimensions of development are illustrated in the figure below. The overlapping areas are fundamentally important for environment statistics, and a strategic approach to strengthening environment statistics in Asia and the Pacific should take into account that many policy-driven demands for statistics relate to the intersection of two or all three areas.

**Figure**

*Many sustainable development targets are formulated to capture development progress in the various dimensions of sustainable development*

<table>
<thead>
<tr>
<th>Natural environment</th>
<th>Sustainability of economic activity</th>
</tr>
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<tbody>
<tr>
<td>Access to resources for human development</td>
<td></td>
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**B. Statistical frameworks for integration**

11. The need for integrated statistics can also be observed within the six components of the Framework for the Development of Environment Statistics, its core set of environment statistics, and in the organizing principles of the System of Environmental-Economic Accounting.

12. Although the System of Environmental-Economic Accounting and the Framework for the Development of Environment Statistics have differences in terms of scope and purpose, both systems are aligned in their emphasis on integration of different data sources, and the quality of the natural environment as a core element of a broader system for monitoring sustainable development.

13. If the revised Framework for the Development of Environment Statistics, the System of Environmental-Economic Accounting and other frameworks and guidance that have been adopted by the Statistical Commission during the past decade are reviewed from this perspective, they represent a general trend towards facilitating increased integrated analyses. For example, the International Recommendations for Water Statistics and Energy Statistics, which were endorsed by the Statistical Commission in 2010 and 2011 respectively, both recommend utilizing the classification of
economic activities used in economic statistics (namely, the International Standard Industrial Classification of All Economic Activities) as a tool for organizing relevant statistics on flows of energy and water resources. That recommendation was reinforced with the adoption of the Central Framework of the System of Environmental-Economic Accounting and the Framework for the Development of Environment Statistics.

III. Challenges and opportunities for improving environment statistics in Asia and the Pacific

14. Following the decisions taken by the Committee at its third session, a number of events have taken place in the region to exchange knowledge and explore potential priority issues for developing environment statistics in response to current and emerging policy needs.

15. Those events include: (a) the Regional Expert Group Meeting on Environment Statistics, which was held in December 2013[^4] and structured according to the 2013 version of the Framework for the Development of Environment Statistics with a view to identifying priority topics; (b) Valuing and Accounting for the Environment in the Asia-Pacific Region — A Workshop for Senior Policymakers and Managers, which was held in October 2013[^5], at which research and capacity development needs related to implementing the System of Environmental-Economic Accounting were discussed; (c) the ninth meeting in June 2014 of the Project Working Group on Statistics of the Special Programme for the Economies of Central Asia[^6], which focused on the System of Environmental-Economic Accounting; and (d) a workshop on green economy indicators, co-organized in Bangkok by the Economic and Social Commission for Asia and the Pacific (ESCAP) and the United Nations Statistics Division in January 2015.

16. All the events indicated that interest and demand for timely and integrated statistics on the environment to assess interdependencies among the three pillars of sustainable development are rapidly growing in the region, driven by national policies as well as global discussions.

17. In many cases, large amounts of important data are being collected by national and local governments. However, some national statistical offices are still at a preliminary stage of strategic planning for the integration of environmental data into national systems, a task being taken up by economic statistics or other departments. Overall, many member States in Asia and the Pacific have yet to implement the recently developed global guidelines for integrating an environmental perspective into official statistics, which were adopted by the Statistical Commission, including for the Framework for the Development of Environment Statistics and the System of Environmental-Economic Accounting.

Priority topics, challenges and modalities for collaboration

18. At the Regional Expert Group Meeting on Environment Statistics, experts highlighted a number of topics as priorities for statistics development

[^5]: Video summary available at www.youtube.com/watch?v=-TWvN_FtLrs&index=3&list=PLbm357817J3cbPbjmJlSr97a9UmOMkMUW.
in the region, including statistics on natural resource use, such as energy, water, timber and fish; greenhouse gas emissions and other climate change-related statistics; land cover and land use; disasters; waste treatment; the green economy; and air and water quality.

19. Experts pointed to national coordination as a general challenge for national statistical systems across the region, particularly as regards environment statistics, which require the involvement of a large number of organizations and areas of expertise. Classifications, definitions and measurement standards for the environment are not applied consistently across different departments in Government, sometimes due to lack of coordination but also because data are collected for different purposes. New mechanisms of cooperation and sharing of data and standard concepts, definitions and methods are required to address this, and lead institutions need to be identified and take on the overall coordination role so that statistics can be compiled and national indicators regularly reported with consistency.

20. Furthermore, the lack of resources, especially technical knowledge and personnel with experience working on environmental issues and their measurement, was put forward as a major constraint on improving environment statistics. Greater advocacy for the importance of investing in official statistics on the environment is needed to help boost the visibility of this challenge among both national and international institutions.

21. It was agreed that existing international initiatives form a good starting-point for regional strategy development and that collaboration and information-sharing among these initiatives should be a priority. A mapping of these initiatives, including of the existing statistical standards and frameworks and their interplay and links to the concepts used in national sustainable development policies, could further inform such a strategy.

22. A targeted, modular implementation of the System of Environmental-Economic Accounting was suggested as a strategy for addressing and prioritizing demands, in particular for resource-use statistics. Furthermore, sharing of experiences and good practices from the region through informal networks of experts on priority topics was suggested as a modality for regional collaboration. Topics and indicators, for which challenges are primarily related to making better use of existing data, could be identified through such collaboration. Moreover, guidance on how to make use of existing data to fill gaps in national and international reporting could be developed.

23. Guidance materials and compilation manuals should be complemented by targeted capacity-building assistance. In addition to technical assistance, experts also suggested that capacity-building on strategic planning and advocacy for environment statistics be emphasized to support an efficient and effective implementation of the Framework for the Development of Environment Statistics and the System of Environmental-Economic Accounting. It was highlighted that capacity-building activities for environment statistics must involve stakeholders from multiple agencies of national Governments, particularly ministries of environment and national statistical offices.
IV. Improving environment statistics in Asia and the Pacific: a modular, complementary and policy-responsive approach

24. Based on recent global developments and the aforementioned discussions on environment statistics at the regional level, it is evident that the policy demand for integrated environment statistics is growing, that statistical standards and frameworks have been developed and that implementation lags behind. It is also evident that a number of global and regional initiatives for improving environment statistics already exist and that national and international organizations best placed to take the lead vary by environmental issue or topic.

A. Complementing existing initiatives

25. As highlighted at recent events, regional collaboration on environment statistics should complement existing related initiatives, which are hugely diverse in terms of topic, functioning and purpose. By way of illustration, a few are listed below:

(a) The Ulaanbaatar Group on Statistics for Economies based on Natural Resources, initiated by the Statistical Commission to improve the availability of statistics that are specifically important for the mining sector, building upon existing international guidelines;

(b) The Asia-Pacific Regional Action Plan to Improve Agricultural and Rural Statistics 2013-2017, implemented under the purview of the Committee and the Asia and Pacific Commission on Agricultural Statistics;

(c) The Regional Programme on Economic Statistics, which includes natural resources as part of its core set, endorsed by the Commission and implemented under the purview of the Committee;

(d) The Strategic Advisory Body for the Modernization of Statistical Processes and Services, established by the Committee with the specific aim of increasing the efficiency of information management within national statistical systems;

(e) The Expert Group on Disaster-related Statistics in Asia and the Pacific, established in 2014 by the Commission to work towards a basic range of disaster-related statistics; 7

(f) The multi-agency Partnership for Action on Green Economy, which focuses on cross-sectoral themes and is flexible with regard to national sector priorities, but has relatively specific expected outcomes for policy analysis.

26. The initiatives cited above are driven by national or international organizations active in the Asia-Pacific region, and are recognized as priorities for the national statistical offices involved. Cooperation for improving environment statistics under the guidance of the Committee is likely to have a greater and more sustainable impact on the statistical capacities of member States through partnership with such initiatives. Partnerships would enable the investigation and development of detailed guidance for specific economic, social and environmental topics or themes that have been formally recognized as priority measurement challenges by all countries, or groups of countries, in the region.

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7 E/ESCAP/CST(4)/7.
B. A modular approach

27. Recent regional discussions have emphasized that the priority should be to focus resources on sustainable production of time series with continuous improvements of data quality. This emphasis is aligned with the Global Recommendations for Implementation of the System of Environmental-Economic Accounting,\(^8\) which were developed by the Committee of Experts on Environmental-Economic Accounting, and which suggest a flexible and modular approach to implementation, based on self-assessment of information needs and data availability and quality, and using a phased approach. A modular approach is a pragmatic way of addressing rising expectations for improved availability of statistics on flows of natural resources in relation to economic and social activities and also for monitoring environmental conditions and quality in response to the economic and social development priorities in each country.

28. A modular approach would, at the national level, entail a step-wise implementation of international guidelines, starting with sectors, modules or components that are prioritized through self-assessments. Regional support could be prioritized and accelerated through partnerships with the groups and initiatives on specific sectors or environmental themes that are already active in Asia and the Pacific.

C. The role of the Committee

29. As pointed out in section II above, the sustainable development goals and national policies that place emphasis on green economies and other integrated concepts create several broad new demands on statistical systems. A policy-responsive environment statistics programme must pay due attention to greater availability of disaggregated statistics and in particular greater integration of statistics from multiple data sources — which are diffused throughout many government agencies — so as to respond to the demand for indicators across statistical domains or pillars of sustainable development.

30. Therefore, environment statistics provide a good example of the challenges and opportunities related to developing capacities in statistics through improved integration of statistical systems. The role of national statistical offices in the integration of data from different entities within each national statistical system varies across the region. There is thus no generally applicable solution to dealing with the challenges of coordination across data sources or for creating appropriate institutional arrangements or a legislative setting for compilation of data from multiple sources. However, there are common technical challenges faced by all countries and there are internationally agreed guidelines for addressing these challenges.

31. Opportunities for adding value to statistical capacity development through regional collaboration relate to the national application of international standards, including the development of supplementary guidelines and advocacy material, experience-sharing, training and other technical and managerial support.

32. As a body comprising heads of national statistical offices, the Committee is well placed to examine the challenges associated with improving integration of statistical systems. The Committee can collectively support such efforts through regional exchange of good practices, and

development of related manuals and other analytical material in close partnership with existing initiatives. Developing and applying standard classifications across all institutions in the national statistical system and provision of analytical and capacity support for making greater use of existing data would be at the heart of such an integration agenda.

33. The ultimate aim of the suggested modular and complementary approach is to strengthen analytical capacity on cross-cutting development issues. That aim would be pursued through improved consistency of standards applied in all entities of the national statistical systems, leading to greater ability to bridge data from different sources, and driving a stronger coordination role by the national statistical office. For the suggested approach to be successful, close collaboration at the regional level with specialized agencies, as well as a systems approach at the national level, will be paramount.

V. Issues for consideration

34. The Committee is invited to approve the proposed approach to strengthening environment statistics in the region, including:

(a) The proposal that regional efforts to improve environment statistics should focus on integration of statistics across the sustainable development pillars so as to strengthen the responsiveness of national statistical systems to the demand for measurement of progress towards nationally and internationally agreed sustainable development goals;

(b) The proposed modular approach, prioritizing specific sectors or modules with due attention to national and regional policy priorities;

(c) The proposed partnership approach, building upon the work of existing groups or initiatives for greater combined impact.

35. The Committee is further invited to provide guidance on the implementation of the suggested approach, including steps and modalities for developing a strategy and implementation plan for the region.