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**Intergovernmental Consultation on Strengthening the
Scientific Base of the United Nations Environment Programme**
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Item 3 of the provisional agenda*

**Consideration of key questions on strengthening the scientific
base of the United Nations Environment Programme**

Report by the Executive Director

The present report contains a summary of information relating to issues to be considered during the intergovernmental consultations on the questions and considerations posed by the Governing Council of the United Nations Environment Programme (UNEP) in its decision 22/1 I A on strengthening the scientific base of UNEP. The information provided herein is taken from a report by the Executive Director entitled Synthesis of responses on strengthening the scientific base of The United Nations Environment Programme (UNEP/SI/IGC/2) and the mandate and programmatic activities of UNEP.

* UNEP/SI/IGC/1.

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I. Actions called for by the Governing Council/Global Ministerial Environment Forum at its twenty-second session

1. Pursuant to paragraphs 1 to 5 of its decision 22/1 I A, on strengthening the scientific base of UNEP, the Governing Council/Global Ministerial Environment Forum:

- “1. Reiterates that further consideration should be given to strengthening the scientific base of the United Nations Environment Programme by improving its ability to monitor and assess global environmental change;
2. Invites Governments, intergovernmental organizations, non-governmental organizations, and scientific institutions to submit to the Executive Director by a date specified by him their views on the following questions:
 - (a) What are the likely gaps and types of assessment needs with respect to the environment and environmental change?
 - (b) How are the United Nations Environment Programme and other organizations currently meeting those assessment needs?
 - (c) What options exist with respect to meeting any unfulfilled needs that fall within the role and mandate of the United Nations Environment Programme?
3. Further invites those providing views to address, inter alia, the following considerations:
 - (a) Scientific credibility, saliency, legitimacy and relevance in the assessment processes;
 - (b) Interaction between science and policy development;
 - (c) The role of existing institutions;
 - (d) Possible options including strengthening existing institutions and mechanisms and the establishment of an intergovernmental panel on global environmental change;
 - (e) Links and sectoral integration;
 - (f) Duplication, cooperation, complementarity and added value to the work of other assessment processes, international agencies and the multilateral environmental agreements;
 - (g) Cost-effectiveness and efficiency;
 - (h) Developing country participation and capacity-building;
4. Requests the Executive Director to make submissions publicly available and to prepare a synthesis report for the Governing Council/Global Ministerial Environment Forum at its eighth special session;
5. Further requests the Executive Director, following the issuance of the report, to facilitate an intergovernmental consultation taking into account available funding, transparency, regional balance and adequate developing country participation, in preparation for the Governing Council/Global Ministerial Environment Forum at its eighth special session.”

II. Introduction

2. UNEP Governing Council decision 22/1 I A on strengthening the scientific base of UNEP was taken pursuant to Governing Council decision SS.VII/1 of 15 February 2002 on international environmental governance, in which the Governing Council adopted the report of the Open-ended Intergovernmental Group of Ministers or Their Representatives on International Environmental Governance. That report concluded that the increasing complexity of environmental degradation required an enhanced capacity for scientific assessment, monitoring and early warning.

Furthermore, the Group recommended that: "Further consideration should be given to strengthening UNEP's scientific base by improving its ability to monitor and assess global environmental change including, *inter alia*, through the establishment of an intergovernmental panel on global environmental change." (UNEP/GCSS.VII/6, annex I, decision SS.VII/1, appendix 1, para. 11(h)(i).)

3. The implementation of decision 22/1 I A has so far included: an extensive consultative process, resulting in written responses from Governments, intergovernmental organizations, non-governmental organizations and scientific institutions; the development of a UNEP web site at <http://science.unep.org> containing all responses, relevant background documents and an optional questionnaire; and an independent analysis and synthesis of responses under the auspices of the Scientific Committee on Problems of the Environment. The Governments of Norway and the Netherlands provided financial support for the implementation of the decision.

4. The report submitted by the Executive Director (UNEP/SI/IGC/2) presents a synthesis of the 122 substantive responses to the questions and considerations from 59 Governments, 21 intergovernmental organizations, 17 non-governmental organizations and 25 scientific institutions received before 12 November 2003. A total of 147 responses, including 70 from Governments, had been received by 16 December 2003. Responses to the additional questions included by the UNEP secretariat, together with all annexes and appendices, are provided in a separate information document (UNEP/SI/IGC/INF/1). The synthesis report confirms the view that the increasing complexity of environmental degradation requires an enhanced capacity in UNEP for scientific assessment, monitoring and early warning.

5. This report contains a summary of information relating to the three questions and eight considerations posed in Governing Council decision 22/1 I A, which the intergovernmental consultation participants may wish to consider in their deliberations. This information is taken from the Executive Director's synthesis report and the mandate and programmatic activities of UNEP. The intergovernmental consultation participants may further wish to make some recommendations to the Governing Council/Global Ministerial Environment Forum through the Executive Director.

III. Question 1: What are the likely gaps and types of assessment needs with respect to the environment and environmental change?

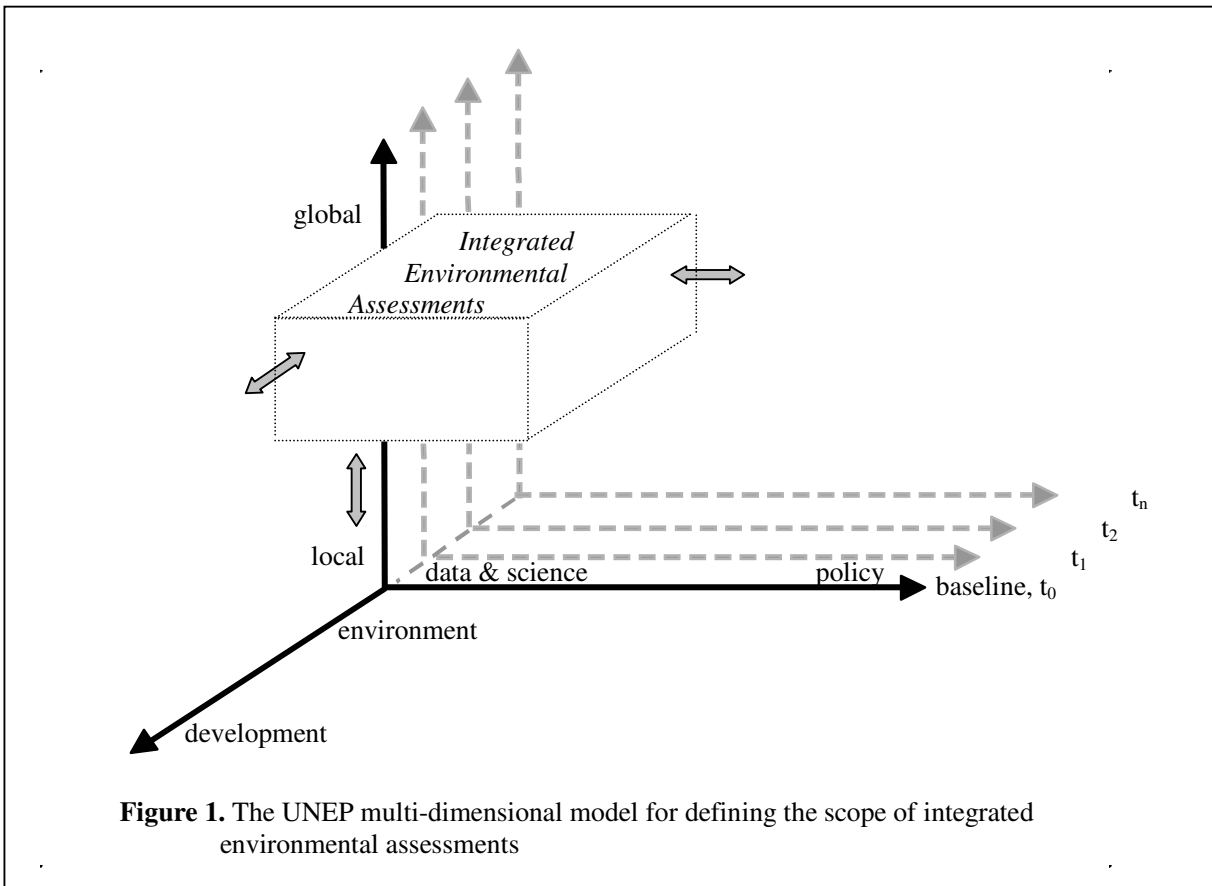
6. In considering question 1, the intergovernmental consultation participants may wish to take into account that environmental assessment includes a range of processes and methodologies¹ which draw on information from research, monitoring, and knowledge held by different constituencies. They provide authoritative and scientifically credible updates of the state of knowledge regarding environmental conditions, response options and scenarios to underpin the development and implementation of policy and law and to identify research, monitoring and data needs. The international community has typically initiated assessments when confronted with a lack of scientific and international consensus, a lack of scientific certainty or of a coherent picture of a complex issue. The assessment process may vary according to its spatial and temporal scale and the complexity of the issue at hand. Most international environmental assessments face a four-dimensional challenge: 1) how to link science and policy; 2) how to link environment and development; 3) how to link different spatial scales; 4) how to link temporal scales (See figure 1).

7. In considering Question 1, the intergovernmental consultation may want to take into account the five different types of thematic and institutional needs and gaps related to assessment of environment and environmental change as identified in the synthesis report (UNEP/SI/IGC/2):

- (a) There is a need to assess environmental challenges that are not being adequately addressed by existing assessments;
- (b) Inter-linkages need to be assessed. They include major environmental challenges, which are inter-linked through systemic interaction and feedback and policy and technology trade-offs. They also include environment and development challenges, which are inter-linked through complex interactions between human society and the environment. Such assessments are needed to underpin the integration of environmental concerns into sectoral plans and policies;

¹ The distinction between integrated or state-of-the-environment assessments and environmental impact assessments used in this paper should also be noted. The former relates to the overall state of the environment to national or international policy formulation, planning and review. Environmental impact assessment normally refers to project or programme specific impacts within the context of existing policy and protection of the environment.

- (c) Scientific credibility in the assessment process needs to be ensured through mobilization of experts and institutions on the basis of scientific merit to undertake independent, critically peer reviewed, scientific assessments. Legitimacy and relevance in the assessment processes need to be ensured through intergovernmental and multi-stakeholder consultations to identify assessment needs and adopt policy-relevant findings;
- (d) Cost-effectiveness, cooperation and strengthening of existing institutions and multilateral environmental agreements need to be fostered in the area of environmental assessment and monitoring. Sufficient intergovernmental and scientific momentum and authority are needed to create a situation in which cooperation between different assessment processes is truly beneficial to all involved and leads to the effective and efficient use of scarce resources;
- (e) Developing country participation and capacity-building need to be strengthened in the area of integrated environmental assessment and monitoring. There is a need to build an increasing cadre of scientists able to understand policy-making processes and to provide policy-relevant advice to ministers and Governments.



IV. Question 2: How are UNEP and other organizations currently meeting those assessment needs?

8. In considering question 2, the intergovernmental consultations may wish to take into account that UNEP is responding to the needs identified in question 1 of decision 22/1 I A within the boundaries of its mandate,² resources and programme. The Governing Council/Global Ministerial Environment Forum is responsible for keeping under review the world environmental situation and promoting the contribution of the scientific community to environmental assessments. The Executive Director provides support to the Governing Council/Global Ministerial Environment Forum and brings to its attention any matter which he deems requires its consideration. The Environment Fund finances, among other things, regional and global monitoring, assessment and data collection systems including, as appropriate, costs for national counterparts and assistance for national, regional and global environmental institutions, while taking due account of the special needs of developing countries. The budget allocation from the Environment Fund to sub-programme 1, Environmental Assessment and Early Warning,³ is \$22,150,000 for the biennium 2004-2005.

9. In considering question 2, the intergovernmental consultation participants may wish to take into account the five different types of thematic and institutional needs and gaps related to assessment of the environment and environmental change as identified in the Executive Director's synthesis report (UNEP/SI/IGC/2):

- (a) In the assessment of existing environmental challenges there is a need to further capitalize on existing assessments such as the Intergovernmental Panel on Climate Change (IPCC), the Global Environment Outlook (GEO) process and the Millennium Ecosystem Assessment project;
- (b) In the assessment of inter-linkages between existing environmental challenges, UNEP needs to strengthen its efforts, building on the GEO process, the inter-linkages report "Protecting our planet, securing our future" (1998), the Millennium Ecosystem Assessment and the recent initiative by the Scientific and Technical Advisory Panel of the Global Environment Facility (GEF);
- (c) Efforts to ensure scientific credibility, legitimacy and relevance in the assessment processes need to be embedded in UNEP programmatic activities under the auspices of Governing Council/Global Ministerial Environment Forum. Due consideration should be given to ensuring compatibility and cooperation with the scientific assessments and advisory mechanisms established under the more recent multilateral environmental agreements;
- (d) Cost-effectiveness, cooperation and strengthening of existing institutions and multilateral environmental agreements in the area of environmental assessment must be further pursued, as resources are limited. There is a need to strengthen UNEP sub-programme 1, Environmental Assessment and Early Warning, including the GEO process. The United Nations system-wide Earthwatch is a potential mechanism for improving interagency cooperation;
- (e) Developing country participation and capacity-building in the area of environmental assessment and monitoring need further strengthening. The role of UNEP in collaborating with centers of excellence in developing countries, the twinning of institutions from the North and the South and the UNEP integrated monitoring, assessment, data, networking and capacity-building efforts are examples that need further strengthening.

² United Nations General Assembly resolutions 2997 (1972) and 53/242 (1999).

³ The sub-programme includes the UNEP flagship GEO report series consisting of an annual GEO statement and a comprehensive GEO report every five years. Thematic assessments that goes beyond the sub-programme include ozone, chemicals, support to IPCC, implementation of GEF-financed assessment projects such as the Global Biodiversity Assessment (UNEP 1995), the Millennium Ecosystem Assessment, the Global International Water Assessment and the planned Land Degradation Assessment, and contributions to other assessment initiatives such as the Food and Agriculture Organization of the United Nations forest resource assessments, the United Nations Educational, Scientific and Cultural Organization's World Water Assessment Programme, the establishment of a regular process for assessing and reporting on the state of the global marine environment and the World Bank initiative on an intergovernmental assessment of agricultural science and technology for development. Support to regional assessments includes the Africa Environment Outlook, groundwater vulnerability in Africa and GEO reports in Latin America and the Caribbean, Europe, North America, and the Asia and Pacific region.

V. Question 3: What options exist with respect to meeting any unfulfilled needs that fall within the role and mandate of UNEP?

10. In considering question 3, the intergovernmental consultation participants may wish to follow a stepwise process based on the findings of the Executive Director's synthesis report (UNEP/SI/IGC/2) with respect to questions 1 and 2. As seen during the consideration of the issue at the twenty-second session of the Governing Council, the responses revealed a difference of views regarding the added value of establishing an intergovernmental panel on global environmental change. It might therefore be advisable to explore the possibility of reaching consensus on the needs and functions first and then discuss appropriate mechanisms for implementation.

11. In considering question 3, the intergovernmental consultation participants may wish to take into account options to meet the five different types of thematic and institutional needs and gaps related to assessment of the environment and environmental change as identified in the synthesis report (UNEP/SI/IGC/2):

- (a) The assessment of environmental challenges that are not being adequately addressed could be facilitated by UNEP developing a systematic, multi-scaled, non-duplicative and cost-efficient approach, built on existing assessments and cooperation with relevant policy instruments;
- (b) The assessment of inter-linkages could be undertaken by UNEP as an integral part of the GEO process in cooperation with the scientific community and other stakeholders and could include:
 - (i) Scientific inter-linkages, policy and technology trade-offs between different environmental challenges, and new and emerging issues such as the system-wide interaction between different forms of environmental change, and biophysical thresholds for change;
 - (ii) Human-environment interactions, inter-linkages between environment and development challenges, and ways and means of integrating environmental concerns into sectoral plans and policies;
- (c) Scientific credibility, legitimacy and relevance in assessment processes could be ensured through the further development of processes, principles, procedures and methodologies to promote:
 - (i) A coherent approach, *inter alia*, through the establishment of a scientific advisory group or groups for strengthened cooperation with and mobilization of scientific institutions and experts on the basis of scientific merit to undertake independent and critically peer reviewed scientific assessments;
 - (ii) Intergovernmental and multi-stakeholder consultations at the global and regional levels to identify needs and adopt policy-relevant findings related to the assessment of environment and environmental change;
- (d) Cost-effectiveness, cooperation and strengthening of existing institutions could be facilitated by the development of guidance and best practices adopted by the Governing Council/Global Ministerial Environment Forum for consideration by other institutions. The operation of existing inter-agency cooperation mechanisms could be strengthened through agreed inter-agency objectives, working arrangements and division of responsibilities;
- (e) Developing country participation and capacity-building could be strengthened through development of tools and mobilization of resources in the context of ongoing UNEP assessment and monitoring programmes and activities, particularly in the regions. These efforts should be closely related to the intergovernmental strategic plan on technology support and capacity building as called for by the Governing Council/Global Ministerial Environment Forum in its decision 22/17 I.

12. The intergovernmental consultation participants may further wish to recommend to the Governing Council/Global Ministerial Environment Forum that it request the Executive Director to develop, in consultation with the scientific community, intergovernmental organizations and non-governmental organizations, and based on existing experiences, a coherent environmental assessment partnership framework within the GEO process. The framework should ensure a regular, scientifically credible, multi-stakeholder and multi-scaled approach to address the gaps related to assessment and monitoring of environment and environmental change as identified in the consultative process.