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**Consultative Meeting of Government Officials and Experts on a  
Programme for the Development and Periodic Review of  
Environmental Law (Montevideo Programme)**

Nairobi, 26–30 November 2007

**Emerging and important issues posing new challenges in the field of  
environmental law:**

**Discussion paper**

**I. Introduction**

1. The Programme for the Development and Periodic Review of Environmental Law (Montevideo Programme) is an intergovernmentally agreed long-term strategic programme of the United Nations Environment Programme (UNEP) in the field of environmental law, addressing a broad range of cross-cutting and thematic issues. Through its implementation during the past 25 years (the first programme for the period 1982-1992, the second programme for the period 1993-2000, and the third programme for the period 2001-2010), the Montevideo Programme has been instrumental in guiding UNEP for its action for the progressive development of international environmental law, such as the development of the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Convention on Biological Diversity, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, and the Stockholm Convention on Persistent

Organic Pollutants. In addition, many guidelines and other non-legally binding instruments concerning a wide range of environmental issues have been developed under the Programme to assist Governments and other stakeholders to address certain environmental issues of global importance. Furthermore, the Programme, particularly during the period since the Rio Summit, has provided UNEP with a strategic focus to provide support to developing countries and countries with economies in transition to develop and strengthen their capacities in the field of environmental law.

2. In order to ensure UNEP's environmental law programme, as guided by the Montevideo Programme, continuously meet the needs of the international community to address environmental issues of global significance, the further implementation of the present Montevideo Programme and the programme components of a future Montevideo Programme should be seized with emerging and important issues not only in the field of the environment but also in other fields which have significant impacts on the environment. The Programme should be able to adapt itself to changes in policies and societies worldwide over a period of time and guide UNEP, working in partnership with Governments and relevant stakeholders, to respond to environmental challenges.

3. Since the adoption of the Montevideo Programme III by the Governing Council at its twenty-first session in February 2001, a series of important environmental policy developments have taken place. These include decision SS.VII/1 on international environmental governance, adopted by the seventh special session of the Governing Council in Cartagena, Colombia in February 2002, the World Summit on Sustainable Development held in Johannesburg in September 2002 and its outcomes including the Johannesburg Declaration on Sustainable Development and the Johannesburg Plan of Implementation, adoption of the Bali Strategic Plan for Technology Support and Capacity-building by the Governing Council at its twenty-third session in February 2005, the 2005 United Nations World Summit and its outcome document as well as its following up, such as the discussions at the General Assembly on paragraph 169 of the World Summit Outcome addressing international environmental governance. There have been a number of important developments also in the context of multilateral environmental agreements since 2001, such as those instruments in the field of climate change, biological diversity and hazardous chemicals and wastes.

4. Against this backdrop, officials and experts attending the present meeting are invited to consider the issues identified below and address a set of questions at the end of the document, with a view to identifying the direction for the further implementation of the present Montevideo Programme III as well as possible components of a future Montevideo Programme IV.

## **II. Emerging and important environmental issues posing new challenges in the field of environmental law**

### **A. Overall trends**

5. The third Global Environment Outlook (GEO) report, a state of the environment report of UNEP issued in 2002, and GEO 2006 annual report, underscore that the world is split into the haves and the have-nots by four major divisions, all of which continue to widen and which pose a serious threat to sustainable development. They are: Environmental Divide: stable or improved environment in some regions (e.g. Europe and North America) vs. a degraded environment in the other regions (mostly developing countries); Policy Divide: some regions struggle more with policy development and/or implementation; Vulnerability Gap: the disadvantaged is more at risk to environmental change and disasters; Lifestyle Divide: excessive consumption by one-fifth of the world population vs. extreme poverty. Closing the divides requires: alleviating poverty and moving the environment from the periphery to the centre of mainstream policy making; reducing the excessive consumption of the more affluent; improving governance, not only at the institutional and national levels, but also at the global level to address disparities between North and South and related conflict and intransigence in negotiating policies for effective environmental management; providing adequate funding for environmental programmes; eliminating debt: indebtedness frequently leads to the overexploitation of the environment. As long as this situation is perpetuated, many of the debtor nations are unlikely to ever achieve sustainable development. In their overall assessment, those reports pointed out that the environment was still at the periphery of socio-economic development. The level of awareness and action has not been commensurate with the state of the global environment which continues to deteriorate. While a number of successes have been achieved from 1972 to 2002<sup>1</sup>, the growing world population is exacerbating the demand on resources and services, and increasing the generation of wastes.

6. The most recent fourth GEO report, issued in 25 October 2007, in its key messages for decision makers, underscores that there is evidence of unprecedented environmental change at the global and regional levels, due to human activities in an increasingly globalized, industrialized and interconnected world, driven by expanding flows of goods, services, capital, people, technologies, information, ideas and labour, even affecting isolated populations. These changes, for which the responsibility is not equally distributed throughout the world, affect the earth in different ways:

- (a) The Earth's surface is warming: This is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, rising global average sea level. Other major impacts include changes in water availability, land degradation, food security, and loss of biodiversity. The projected increase in frequency and intensity of heat waves, storms, floods and droughts would dramatically affect many millions of people including those in small island states and Polar regions;
- (b) Air pollution keeps on causing health problems, with more than 2 million people globally die prematurely every year due to outdoor and indoor;
- (c) The "hole" in the stratospheric ozone layer over the Antarctic is now the largest it has ever been. However, due to decreased emissions of ozone depleting substances and assuming full Montreal Protocol compliance, the ozone layer is expected to recover, but not until between 2060 and 2075 as a result of long lag times;
- (d) Land degradation is occurring largely as a consequence of unsustainable land use and climate change. This includes soil erosion, nutrient depletion, water scarcity, salinity, desertification, and the disruption of biological cycles. Poor people suffering disproportionately from the effects of this, especially in the drylands, which support some 2 billion people, 90 per cent of whom live in developing countries;
- (e) The per capita availability of freshwater is declining globally, and contaminated water remains the greatest single environmental cause of human sickness and death, with a sensible decline in water availability if present trends continue. The decline of quantity and quality of surface and groundwater is impacting aquatic ecosystems and their services;
- (f) Aquatic ecosystems continue to be heavily exploited, and as a consequence sustainability of food supplies and biodiversity are at risk. Global marine and freshwater fish catches show large-scale declines, caused mostly by persistent over-fishing;
- (g) The great majority of well-studied species are declining in distribution, abundance or both. More than 16 000 species have been identified as threatened with extinction.

7. The GEO 4 report also addresses the issue of distribution of responsibilities for environmental change, highlighting for instance that in 2004, countries in Annex 1 to the United Nations Framework Convention on Climate Change, hosting 20 per cent of world population accounted for 46 per cent of

greenhouse gas emissions. It also highlights that environmental change affects human development options, with poor people being the most vulnerable and 90 per cent of the people exposed to disasters living in the developing world.

8. Based on the four scenarios presented in the GEO-4 report, there is an increasing risk of crossing tipping points, i.e. points beyond which there are abrupt, accelerating, or potentially irreversible changes, even as some global environmental degradation trends are slowed or reversed at different rates towards the middle of the century. Changes in biophysical and social systems may continue even if the forces of change are removed, as evidenced in the stratospheric ozone depletion and the loss of species. Transition towards sustainable development needs to be pursued more intensively by nations and the international community, and that trade-offs, which may involve hard choices among different values and concerns, may be needed to reduce drivers of environmental change.

9. Furthermore, the Millennium Ecosystem Assessment revealed that approximately 60% (15 out of 24) of the ecosystem services examined are being degraded or used unsustainably. Although the changes that have been made to ecosystems have contributed to the improvement of human well-being and economic development, this has been achieved at the costs of the degradation of many ecosystem services and the exacerbation of poverty of some groups of people. These problems will substantially diminish the benefits that future generations obtain from ecosystems if no appropriate measure is taken. The Millennium Ecosystem Assessment also concluded that the degradation of ecosystem services could grow significantly worse during the first half of this century and pose a barrier to achieving the Millennium Development Goals. Measures taken in the past to stop or reverse the degradation of ecosystems have brought about certain positive outcomes, but these improvements have generally not kept pace with growing pressures and demands. Therefore, in order to reverse these trends, there is a need for significant changes in policies, institutions, and practices that are not currently underway.

10. Overall, policy measures have not been adequate to counteract the pressures imposed by increasing poverty and uncontrolled consumption. The overriding need in policy development is to adopt a balanced approach towards sustainable development, giving weight to all the three pillars: from the environmental perspective, this means mainstreaming the environment, bringing it in from the margins to the heart of development.

## **B. Major challenges**

11. The GEO-3 and GEO 2006 annual reports highlighted specific environmental problems and other issues that still need action. They include:

- (a) Anthropogenic emissions- emissions of almost all greenhouse gases continue to rise;
- (b) Ground-level ozone, smog and fine particulates - significant health risks;
- (c) Overexploitation of many surface water resources - water stress or scarcity in many countries;
- (d) Earth's biological diversity under increasing threat, due to Habitat destruction and/or modification as the main cause of biodiversity loss, followed by invasive species;
- (e) Sharp global trend towards increasingly intense exploitation and depletion of wild fish stocks. Numerous fisheries have collapsed and others are threatened with overexploitation;
- (f) Land degradation continues to worsen;
- (g) Many remaining forest ecosystems have been degraded and fragmented;
- (h) Large increase in reactive nitrogen in the global biosphere, contributing to the acidification and eutrophication of ecosystems, due to crop and livestock production;
- (i) Urban infrastructure and municipal services inadequate to accommodate millions of the urban poor with deteriorating air pollution and water quality with major health, economic and social impacts;
- (j) Increase in the frequency and intensity of natural disasters;
- (k) Major environmental issues at the regional level: climate change, land and soil degradation, forest degradation and deforestation, freshwater stress and scarcity as well as quality/pollution, degradation and pollution of coastal and marine areas, loss of habitats and species, growth of unplanned settlements and mounting solid waste, and increasing droughts and floods. While the regions face similar environmental challenges, the magnitude and extent of the problems varies;
- (l) Large numbers of people still lacking access to clean water and adequate sanitation, good outdoor and indoor air quality, cleaner energy and waste management;
- (m) Unresolved conflicts over the ownership and management of common property resources (such as water, air, land, forests and oceans);
- (n) Highly complex environmental issues which are not yet adequately addressed include the increasing prevalence of persistent toxic substances, unsafe handling, disposal and dispersal of chemical and hazardous wastes, non-point pollution sources, management of transboundary river systems and shared water bodies, and excessive nitrogen loading;

- (o) Climate change will cause inevitable damage in the medium and long term (low-lying islands and coastal areas, arid and semi-arid ecosystems, increased scale and intensity of environmental disasters);
- (p) The global environmental impact (ecological footprint) of the developed world and prosperous communities elsewhere is larger than that of the poor in the developing world but future economic development and population growth in the latter are likely to dramatically increase environmental impacts.

12. The GEO 4 report confirmed most of the concerns expressed in the previous GEO reports, and presents to a certain extent an even more alarming image of the status of the environment. In the key messages for decision makers, the report identifies some efforts that could be promoted by decision makers to address environmental change. These include:

- (a) Reducing people's vulnerability to environmental and socio-economic changes. This could be pursued through decentralization, strengthening resource rights of local people, improving access to financial and technical support, improving capacities to cope with natural disasters, and empowering women and vulnerable groups;
- (b) Integrating environmental activities into the broader development framework, including by ascertaining the environmental impacts of proposed public spending, identifying sectoral and inter-sectoral environmental targets, promoting best practices, and monitoring long term achievements;
- (c) Enhancing treaty compliance by overcoming administrative costs and the heavy reporting burden of Parties, improving monitoring and compliance, and enhancing coordination, particularly at national level;
- (d) Creating enabling environments for innovations and emerging solutions by using economic instruments, new and existing technologies, empowerment of stakeholders, and more adaptive approaches which break away from the traditional segmented institutional management and production systems, and result in more sustainable consumption and production patterns;
- (e) Strengthening environmental knowledge, education and awareness by making the best-available scientific research and data accessible through improved monitoring,

assessments and knowledge infrastructure, building on the rapid developments in information and communication technologies;

- (f) Mobilizing financial resources to address environmental problems through innovative approaches, including payments for ecosystem services while achieving an open, nondiscriminatory and equitable multilateral trading system as well as meaningful trade liberalization benefiting countries at all stages of development.

13. The GEO 4 report also stresses that the knowledge on the interlinkages between environment and development, and the impacts on human well-being gained in the last two decades can be used in the transition towards sustainable development. It highlights that, for many problems, the benefits of early action outweigh the costs and that action is needed now to pursue the transition towards sustainable development supported by well-governed, innovative and results-oriented institutions. With specific reference to institutions, the GEO 4 report suggests to expand institutions and adapt policies that have already been effective to address conventional problems into the areas lacking such policies, especially in developing regions, and financing this endeavor and supporting innovation that pursues new and emerging solutions for persistent environmental problems by using economic instruments and more adaptive approaches. It also identifies the UN reform as offering significant opportunities for increased effectiveness of institutions.

14. The Millennium Ecosystem Assessment concluded that a series of effective responses are required to address the following barriers related to the management of ecosystems:

- (a) Inappropriate institutional and governance arrangements, including the presence of corruption and weak systems of regulation and accountability: A number of issues that we are facing today are of recent, emerging concerns and are not reflected in designing today's institutions. Therefore, changes in existing institutions and the development of new ones may be sometimes necessary, particularly at the national level, relating to the management of common pool/open access resources (e.g. issues of ownership and access to resources, rights to participate in decision making, etc.). Furthermore, one of the problems of ecosystem management is the lack of alignment between political/administrative boundaries and units appropriate for the management of ecosystem goods and services. Sustainable management of ecosystems cannot be achieved by overly centralized or overly decentralized decision making. Therefore, there is a need to develop institutions that devolve (or centralize) decision making to meet management needs while ensuring effective coordination across scales. Further integration of ecosystem management goals within other sector and within

broader development planning frameworks (e.g. Poverty Reduction Strategies) is necessary. The limited, focused nature of the goals and mechanisms included in most bilateral and multilateral environmental agreements does not sufficiently address the broader issue of ecosystem services and human well-being. Further coordination among multilateral environmental agreements, as well as the coordination between multilateral environmental agreements and more politically powerful international institutions, such as economic and trade agreements is necessary to ensure consistency. The implementation of these agreements at the national level must also be coordinated among relevant institutions;

- (b) Market failures and the misalignment of economic incentives: Sustainable management of ecosystems cannot be achieved by overly centralized or overly decentralized decision making. A wide range of economic and financial instruments exist that can influence human behaviour to promote the sustainable management of ecosystems. However, in order for these instruments to work effectively, there is a need for supporting institutions (e.g. clear definition of property rights, mechanisms for conflict resolutions and monitoring, etc.), and there is a need to further build this kind of institutional capacity. The establishment of market based mechanisms often requires decisions about wealth distribution and resource allocation (e.g. establishment of private property rights for resource that were formerly considered as common pool/open access resources), and it is important to ensure that equity aspects are fully taken into consideration so that the introduction of market mechanisms does not impose additional burden or further marginalize the poor;
- (c) Social and behavioral factors, including the lack of political and economic power of some groups (such as poor people, women, and indigenous peoples) that are particularly dependent on ecosystem services or harmed by their degradation;
- (d) Underinvestment in the development and diffusion of technologies that could increase the efficiency of use of ecosystem services and could reduce the harmful impacts of various drivers of ecosystem change;
- (e) Insufficient knowledge (as well as the poor use of existing knowledge) concerning ecosystem services and management, policy, technological, behavioral, and institutional responses that could enhance benefits from these services while conserving resources. The policies and institutions for the sustainable management of ecosystems need to be flexible and capable of adapting to change. It is important to consider the fact that there is limited information available on the status (including economic value) of most ecosystem services,

and the models and methodologies that are currently available to project future environmental and economic conditions do not have sufficient capacity to incorporate ecological feedbacks (e.g. nonlinear changes in ecosystems, such as accelerating, abrupt, and potentially irreversible changes), as well as behavioral feedbacks such as learning that may take place through adaptive management of ecosystems;

- (f) Historically, most responses addressing ecosystem services have concentrated on the short-term benefits from increasing the productivity of provisioning services (products obtained from ecosystems<sup>2</sup>), while limited attention has been paid on managing regulating (benefits obtained from the regulation of ecosystem processes<sup>3</sup>), cultural (nonmaterial benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences<sup>4</sup>), and supporting ecosystem services (services that are necessary for the production of all other ecosystem services<sup>5</sup>) as well as on management goals related to poverty alleviation and equitable distribution of benefits from ecosystem services. The reformulation of existing policies and institutions, as well as the design of new policies and institutions needs to take it into account.

15. With regard to the needs in the field of environmental law in developing countries, the following, as expressed in the Bandung Roadmap for Advancement of Environmental Law in Support of the New Asian-African Strategic Partnership, adopted at the New Asian-African Strategic Partnership-UNEP Workshop on Environmental law and Policy (Jakarta/Bandung, December 2006), highlights relevant issues:

- (a) Lack of full appreciation by policy-makers of the value of the environment and the services it provides for supporting economic and social development and improvement of human well-being and welfare. Consequently, the environment has not been mainstreamed in development policies, and the environment has been accorded as a low priority with little economic value;
- (b) Lack of adequate environmental awareness and knowledge on environmental matters among government officials, parliamentarians, judges, prosecutors, magistrates, attorneys, police and other enforcement officials, as well as the public, and a need for appropriate training and capacity-building for them;
- (c) Fragmented environmental and environment-related laws and regulations governed under different government authorities that are outside of the control of the environmental

authority, and possible conflict among them. Laws are often outdated and inadequate to address emerging environmental issues;

- (d) Relatively weak power of the environmental authority within the government;
- (e) Lack of adequate access to environmental information and access to justice by the public;
- (f) Need for coordination and cooperation between enforcement officers;
- (g) Corruption in the enforcement of environmental law, including certain segments of the judiciary, police, customs and other enforcement officials;
- (h) Lack of human, technical and financial resources to support environmental authority and related institutions for implementing environmental law;
- (i) Lack of capacity and resources for full involvement in the negotiation on multilateral environmental agreements;
- (j) Lack of capacity and resources for the implementation of multilateral environmental agreements at the regional and international levels.

### **C. Responses to challenges**

16. The Bali Strategic Plan is especially designed to address the needs of developing countries and countries with economies in transition to develop their efforts in capacity-building and technology support in the field of the environment, including environmental law. Its objectives include strengthening of the capacity of Governments of developing countries as well as of countries with economies in transition, at all levels, among other things, to implement programmatic goals set by the Governing Council/Global Ministerial Environment Forum, to comply with international agreements and implement their obligations at the national level, to achieve their environmental goals, targets and objectives, as well as environment-related internationally agreed development goals, including those contained in the Millennium Declaration, the Plan of Implementation of the World Summit on Sustainable Development and the outcomes of other major United Nations conferences and international agreements, thus enhancing the environmental sustainability of their countries' development. The plan is also to provide a framework for capacity-building to ensure the effective participation of developing countries as well as countries with economies in transition

in negotiations concerning multilateral environmental agreements. An indicative list of issues that the plan should address include strengthening of national and regional environmental or environment-related institutions (government institutions, judiciary, enforcement), development of national environmental law, and assistance for facilitating compliance with and enforcement of obligations under multilateral environmental agreements and implementation of environmental commitments.

17. In the context of the preparation of a prioritized and results-oriented medium term strategy for 2010-2013 and programme of work for 2010-2011 as requested by the Governing Council, as well as the Secretary-General's reform agenda and relevant international developments such as climate change, recent developments within the United Nations, including calls for greater coherence within the United Nations and the ongoing consideration of international environmental governance at the General Assembly, the Executive Director recently decided that UNEP should exercise leadership on the following issues:

- (a) Climate change response – mitigation, adaptation and inter-linkages;
- (b) Ecosystem management/systems/restoration – terrestrial (land and freshwater) and marine;
- (c) Environmentally hazardous substances – including pollution issues;
- (d) Resource efficiency – including sustainable production and consumption;
- (e) Natural disasters and post conflict response.

18. The governance dimension of these priorities will be critical and UNEP should play an active role in the governance debate. The priority areas need to be addressed in the context of:

- (a) Being responsive to regional and country needs;
- (b) Strengthening the capacity of Governments of developing countries as well as countries with economies in transition;
- (c) Mainstreaming environment into development and trade;
- (d) Providing leadership in scientific assessment and monitoring the state of the global environment;
- (e) Enhancing cooperation and coordination of environmental issues within the United Nations system;
- (f) Working in partnership across the United Nations system, with the private sector and civil society;
- (g) Ensuring effective outreach and communications.

### III. Key issues

19. Given the above, officials and experts present at the meeting are invited to consider the following issues:

- (a) What is the role of law in addressing emerging and important issues in the field of the environment? What are the weaknesses or strengths of the existing national and international law and related institutional frameworks to address such emerging and important issues and to advance the implementation of internationally agreed objectives, goals and targets in the field of the environment?
- (b) What are priorities for action in the field of environmental law for a period up to the year 2020, what would be the role of Governments, organizations and other stakeholders and UNEP in addressing such priorities?
- (c) How should the future Montevideo Programme IV address the above issues?

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<sup>1</sup> Successes during 1972-2002 include the following:

- Success in addressing stratospheric ozone depletion (but vigilance needs to continue)
- Reduction in levels of common air pollutants through policy measures such as emissions and air quality standards, technology-based regulations and different market-based instruments.
- More holistic approaches to land management, such as integrated plant nutrition systems and integrated pest management with benefits for the health of agricultural ecosystems in some regions.
- Wide acceptance of the concept of integrated water resources management.
- A new theoretical understanding of the benefits of ecosystem services (accompanied, though, by missing or sporadic practical information and policy instruments)
- Evolution from 'end-of-pipe' approaches to goals for sustainability and a modest shift to a more integrated approach to environmental policies and management, focusing on the sustainability of ecosystems and watersheds, for example, rather than on sustaining yields.
- Recognition that poverty reduction, economic development and environmental stability should be mutual goals.

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- Ambient air quality and point-source water pollution have been addressed satisfactorily in many areas; recycling has become more common; wastewater treatment has improved; pulp-and-paper industry effluents have declined and hazardous waste threats have been reduced. Protected areas have been increasingly set aside for conservation and recreation.
  - Mixed successes in the developing world in addressing the environment-development agenda: growing democratization and participation, growing civil society awareness of the debate.
  - Emerging of a natural 'cluster' of biodiversity policies.
  - Technological change has helped to relieve some environmental pressures: lower material intensity in production; a shift from materials and energy supply to the provision of services; a modest boost in renewable technology; and a significant clean-up in some regions in previously 'dirty' industries.
  - Higher importance of risk reduction has been placed, and strengthening of mechanisms and early warning systems.

<sup>2</sup> It includes food, fiber, fuel, genetic resources, biochemicals, natural medicines, and pharmaceuticals, ornamental resources, fresh water.

<sup>3</sup> It includes air quality regulation, climate regulation, water regulation, erosion regulation, water purification and waste treatment, disease regulation, pest regulation, pollination, and natural hazard regulation.

<sup>4</sup> It includes cultural diversity, spiritual and religious values, knowledge systems, educational values, inspiration, aesthetic values, social relations, sense of place, cultural heritage values, and recreation and ecotourism.

<sup>5</sup> It includes soil formation, photosynthesis, primary production, nutrient cycling, and water cycling.