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Environment Programme**

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GLOBAL MINISTERIAL ENVIRONMENT FORUM

POLICY ISSUES: EMERGING POLICY ISSUES

**OUTCOME OF THE FIRST GLOBAL MINISTERIAL ENVIRONMENT FORUM/SIXTH
SPECIAL SESSION OF THE GOVERNING COUNCIL**

**FURTHER IMPROVEMENT OF ENVIRONMENTAL EMERGENCY PREVENTION,
PREPAREDNESS, ASSESSMENT, RESPONSE AND MITIGATION**

Report of the Executive Director

Summary

The Governing Council has identified environmental emergencies as one of the environmental threats that needs to be addressed by the United Nations Environment Programme (UNEP) and has requested the Executive Director to submit a draft strategy, which is presented as an annex to this document. The joint Environment Unit established by UNEP and the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) has served as a focal point and has improved cooperation in this area. Action has been taken in China, Guinea, Kenya, Kosovo, Mozambique Romania, South Asia, Turkey and Venezuela. UNEP monitors, assesses and disseminates information about environmental conditions, change and trends, while the APELL (Awareness and Preparedness for Emergencies at Local Level) programme is a major tool for disaster prevention. The proposed agenda for action addresses environmental law, the APELL programme, clean production, the Global Resource Information Database (GRID) and the Task Force on the Balkans jointly set up by UNEP and United Nations Centre for Human Settlements (UNCHS) (Habitat). Services will be consolidated, and prevention and preparedness, environmental law, the APELL programme, assessment and early warning, response and mitigation will be reinforced.

* UNEP/GC.21/1.

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Suggested action by the Governing Council

The Governing Council may wish to adopt a decision along the following lines:

The Governing Council,

Having considered the report of the Executive Director on further improvement of environmental emergency prevention, preparedness, assessment, response and mitigation (UNEP/GC.21/3/Add.1),

1. Notes the progress made by the United Nations Environment Programme in implementing Governing Council decision 20/8 of 5 February 1999;
2. Welcomes the Strategic Framework on Emergency Prevention, Preparedness, Assessment, Response and Mitigation;
3. Expresses its support for the Executive Director in its implementation;
4. Further welcomes the efforts of the Executive Director to strengthen the capacity of the secretariat in handling environmental emergencies;
5. Expresses its support for those efforts;
6. Expresses satisfaction with the constructive collaboration between the United Nations Environment Programme, the United Nations Office for Coordination of Humanitarian Affairs and other United Nations agencies and bodies in enhancing the ability of the United Nations to assist countries, particularly developing countries, affected by environmental emergencies by providing a more coordinated approach to environmental emergency assessment and early warning, preparedness, response and mitigation and ultimately to preventing and reducing such emergencies and their environmental impacts;
7. Endorses the collaboration referred to in paragraph 6 above;
8. Requests the Executive Director to continue to consolidate the Programme's disaster-related activities in order to provide a fully integrated and coordinated approach for responding to environmental emergencies, including natural and technological disasters causing significant environmental impacts;
9. Also requests the Executive Director to continue to strengthen cooperation between the United Nations Environment Programme and the United Nations Office for the Coordination of Humanitarian Affairs through the Joint Environment Unit;
10. Invites Governments and relevant United Nations agencies and bodies, other international organizations and non-governmental organizations to continue to collaborate with the United Nations Environment Programme in its efforts to provide assistance to countries, particularly developing countries, in responding to and preventing and reducing environmental emergencies;
11. Calls on Governments to develop and strengthen national legal and institutional arrangements for environmental emergency management, so as to enable them to respond to environmental emergencies within an integrated and coordinated approach;
12. Urges Governments and international organizations in a position to do so to contribute to the Trust Fund for Environmental Emergencies;
13. Further requests the Executive Director to submit to it at its twenty-second session a progress report on the activities of the United Nations Environment Programme in the field of environmental emergencies.

I. INTRODUCTION

1. Human populations are suffering from more and more frequent environmental emergencies. Natural and human-induced disasters, such as floods, droughts, cyclones, earthquakes, landslides and forest fires, are happening all over the world with increasing frequency and severity. Man-made accidents, such as chemical releases and oil spills, have not been prevented, despite serious efforts, while armed conflicts in many parts of the world are also triggering environmental emergencies. Disasters have wreaked huge losses on the economy and to human lives, and environmental emergencies will continue to occur into the foreseeable future. The degradation of ecosystems, rapid industrial growth and increasing use of chemicals create an expectation for timely and effective emergency response. Furthermore, the number and complexity of emergencies involving a combination of natural and man-made elements are also growing. At the same time, industrial development in many developing countries has outpaced governments' ability to develop an infrastructure to cope with disasters, creating significant vulnerabilities and a strong reliance on international assistance.

2. At its fifth special session, the Governing Council, in its decision SS.V/2, identified environmental information, assessment and research, including environmental emergency response capacity and the strengthening of early warning and assessment functions, as areas of concentration for the activities of UNEP. Subsequently, in its decision 20/8, the Council requested the Executive Director to focus and strengthen the contribution of UNEP's environmental expertise to the coordination of United Nations system-wide responses to natural disasters caused by natural phenomena or natural phenomena coupled with effects of human actions, with a view to providing United Nations coordinated assistance to countries, particularly developing countries, affected by such natural disasters.

3. At its sixth special session, in the Malmö Ministerial Declaration, the Governing Council identified increasing environmental emergencies as one of the environmental threats that needed to be addressed, expressed support for UNEP's activities in response to environmental emergencies and requested the Executive Director to present a strategy for dealing with environmental emergencies to it at its twenty-first session. A draft strategic framework for emergency prevention, preparedness, assessment, response and mitigation is provided in the annex to this document.

4. In coping with the situation and responding to several decisions of the Governing Council, UNEP has strengthened its contribution to the United Nations system-wide coordinated efforts in emergency prevention, preparedness, assessment, response and mitigation. It has developed a strategy for environmental emergencies and strengthened its capacity in this area.

II. COOPERATION AND LINKAGES

5. In accordance with Governing Council decision 20/8, constructive collaboration between UNEP and OCHA has been developed. This has strengthened the ability of the United Nations to assist countries affected by environmental emergencies, particularly developing countries, to mitigate and reduce the environmental consequences of such events. Over the past seven years, the joint UNEP/OCHA Environment Unit has served as a focal point and has successfully improved cooperation in areas related to the coordination and mobilization of assistance to countries facing environmental emergencies. The joint unit's position within the Disaster Response Branch of OCHA and its linkages with UNEP headquarters in Nairobi have allowed it to take effective advantage of the array of environmental expertise available within UNEP and the strong emergency management and disaster response capabilities and structures of OCHA. This alliance has resulted in effective and timely coordination and mobilization of urgent assistance in response to environmental emergencies worldwide. The purpose of the joint unit is to mobilize international assistance for countries facing environmental emergencies to mitigate and reduce their environmental impacts. The joint unit provides a pragmatic, targeted and efficient structure to fill identified gaps in international response to environmental emergencies. The joint unit also serves as a clearing house for information and a switchboard for disaster notification, issuing alerts and acting as a broker among donor

countries. It provides impartial and independent assessment of emergencies. As a result, countries can mobilize international assistance at any time. This programme is implemented through permanent monitoring, prompt notification of the international community, brokering of bilateral assistance, swift mobilization of multilateral assistance and timely emergency assessment.

6. Over time, the partnership arrangement between UNEP and OCHA has continued to develop in a number of critical areas. The United Nations Disaster Assessment and Coordination Team mechanism has been made available for responses to environmental emergencies, over and above its conventional role in natural disaster events. One of the most recent advances in the existing arrangement has been in formalizing the participation and training of UNEP staff for greater and more integrated involvement in the mechanism. This important and very successful UNEP-OCHA alliance continues to serve as a meaningful example of positive cooperation and collaboration between the United Nations agencies.

7. Following the International Decade for Natural Disaster Reduction (IDNDR), the International Strategy for Disaster Reduction (ISDR) was adopted and the Inter-agency Task Force for Disaster Reduction (IATF) and the ISDR secretariat were established. UNEP is currently a member of IATF and has participated in three IATF working groups: one on El Niño and La Niña, another on early warning and the quantification of risk and a third on vulnerability and the impact of disasters.

8. In its resolution 53/242, the General Assembly called on UNEP and UNCHS (Habitat) to increase cooperation and strengthen coordination of their activities. In the past two years, the two organizations have been cooperating in many activities related to emergency prevention, preparedness, mitigation and response.

9. In the area of the environmental impact of refugees, the Office of the United Nations High Commissioner for Refugees (UNHCR) has been an important partner, and the two organizations have cooperated with non-governmental organizations and donors.

10. UNEP has continued to develop important linkages and cooperation with many other partners inside and outside the United Nations system. Partnership arrangements for information sharing and mutual aid have been prepared and agreed upon by a number of international organizations. The development and implementation of interface procedures with other cooperating bodies will assist in consolidating responsibilities among agencies sharing interests in environmental emergency prevention, preparedness, assessment, response and mitigation.

III. MAJOR ACTIONS TAKEN SINCE THE TWENTIETH SESSION OF THE GOVERNING COUNCIL

11. Actions in environmental emergencies have been undertaken in pursuance of decisions of the Governing Council or requests from Governments in environmental emergencies or environmental aspects of complex emergencies and in close cooperation with OCHA, UNCHS (Habitat) and other United Nations agencies and international organizations.

12. As part of the process of UNEP reform and revitalization, the focus on emergency prevention, preparedness, assessment, response and mitigation at UNEP headquarters has been strengthened. UNEP's capacity in environmental emergencies has been reinforced with additional Professional staff and financial resources, thus enhancing its ability to respond to disasters. However, inadequate financial resources are still a major constraint in responding to challenges in this area. In spite of repeated appeals by the Governing Council, no contribution has yet been received for the Trust Fund for Environmental Emergencies.

13. The following major activities have been undertaken by UNEP alone or in conjunction with partners in assisting countries that have been affected by environmental emergencies. To assess the environmental and human settlements impacts of the conflict in the Balkans, the joint UNEP/UNCHS (Habitat) Balkans Task Force was established in May 1999. Its report, "The Kosovo conflict - consequences for the environment and human settlements", was released in September 1999. The report recommended immediate

remedial actions at the "hot spots" of environmental concern in four cities in Yugoslavia. The task force conducted a feasibility study on specific activities and technical requirements at the four "hot spots" from February to April 2000. UNEP produced a project document for cleaning up the "hot spots," and the project is now being executed. UNEP also conducted a post-conflict environmental assessment in Albania and in The former Yugoslav Republic of Macedonia from September 2000 to January 2001 and organized a field assessment in Kosovo from 5 to 19 November 2000 on depleted uranium used during the conflict.

14. In January 1999, UNEP studied the serious floods that occurred in 1998 in China, evaluating their contributory factors and their impacts on the environment. Three technical workshops and two expert working group meetings were held, and the proceedings of these meetings have been published, summarizing experience in China and lessons learned in flood mitigation and management. In collaboration with UNCHS (Habitat), UNEP is assisting China in developing a vulnerability assessment for floods in the Yangtze River basin.

15. UNEP and UNCHS (Habitat) have developed the joint project "Mitigation, management and control of floods in South Asia" to promote technical cooperation in flood mitigation and management among South Asian countries. Two technical meetings were held in 2000 with the participation of experts and government officials from Bangladesh, China, India, Nepal and Viet Nam. Country reports were prepared by five participating countries, and there was an extensive exchange of experience in flood mitigation and management. Areas and modalities for further cooperation were identified.

16. In December 1999, a joint UNEP/UNCHS (Habitat) scoping mission was sent to Turkey to assess the impacts of earthquakes on the environment and human settlements. The mission made recommendations to reduce losses and prepare for future earthquakes.

17. At the request of Hungary, Romania and Yugoslavia, UNEP and OCHA sent an assessment mission to the three countries from 26 February to 5 March 2000. The mission assessed the environmental impacts of the spill of liquid and suspended waste containing cyanide and heavy metals from a gold mine in Baia Mare, Romania. It made recommendations on response activities and better accident prevention and preparedness and on possible international assistance. Two workshops were organized in May and October 2000 by UNEP on disaster prevention and preparedness in the mining industry.

18. Following the floods and landslides between November 1999 and February 2000 in Venezuela, UNEP made a preliminary environmental assessment of the damage caused by the floods. A joint UNEP/UNCHS (Habitat) technical mission visited Venezuela in June 2000 to identify areas for assistance in flood mitigation and management. Follow-up activities will be organized in cooperation with the Governments.

19. A joint UNEP/UNCHS (Habitat) mission was sent to Mozambique to assess the impact of the January to March 2000 floods on the environment and human settlements. It made recommendations for mitigation and preparedness for future floods. Six project proposals were developed by the mission. Three of them were included in the United Nations Consolidated Appeal for Emergency Relief and Initial Rehabilitation for Mozambique, and the other three proposals were submitted to a donors' conference in May 2000 in Rome.

20. On 15 March 2000, UNEP released the report "Environmental impact of refugees in Guinea", which was produced in cooperation with UNCHS (Habitat) and UNHCR at the request of the Government of Guinea. The report is based on a desk study followed by a joint field mission to the region and was forwarded to the Secretary-General on 10 March 2000. The report made an initial analysis of the environmental impact of the large influx of refugees in southern Guinea fleeing from recent conflicts in Liberia and Sierra Leone.

21. From September to November 2000, a reconnaissance study on the drought in Kenya was conducted by UNEP in collaboration with the Government of Kenya, with the support of several government institutions and non-governmental organizations. The group made a preliminary assessment of the impacts

of the drought on the environment and made recommendations for follow-up. UNEP supported Kenya in conducting a baseline survey of the state of the environment including land use patterns, forest and vegetation cover, vulnerable areas and deforestation rate.

22. A Brainstorming Meeting on Prevention and Mitigation of the Environmental Impact of Refugee Settlements and Flows in Africa was held on 14 and 15 September 2000 at UNEP headquarters in Nairobi. The meeting was sponsored by UNEP and attended by representatives of United Nations agencies, donors and non-governmental organizations. They exchanged experience in work relating to the environmental impact of refugee settlements and flows and discussed coordination and possible action.

23. The UNEP Awareness and Preparedness for Emergencies at Local Level (APELL) programme has continued to contribute to raising public awareness of the need for emergency preparedness and the prevention and reduction of environmental emergencies and damage. The following activities have been organized since the twentieth session of the Council: six seminars on APELL in India, Jordan, Qatar, South Africa, Tunisia and the United Kingdom; provision of technical information related to the cyanide spill in Baia Mare, Romania; two workshops in May and one workshop in October 2000, following up on the Baia Mare cyanide spill; and publication of "TransAPELL Guidance for Dangerous Goods Transport Emergency Planning in a Local Community" and two technical reports, "APELL for the mining industry" and "Preparedness and mitigation in natural disasters".

24. The joint UNEP/OCHA Environment Unit has assisted many countries in responding to a variety of environmental emergencies. It has coordinated and mobilized international assistance and provided brokering assistance for the following environmental emergencies: aviation fuel spill, Lokichogio, Kenya, March 1999; threat of a major dam break, Tajikistan, July 1999; earthquake resulting in an oil leak and fire at a petroleum refinery, Turkey, August 1999; chemical contamination of a major port area, Venezuela, January 2000; Baia Borsa tailings spill, Hungary and Romania, March 2000; and a major sulphuric acid spill from a battery factory, Mitrovica, Kosovo, September 2000. The joint unit has established a global network of officially designated national focal points as conduits for information and assistance. This enables UNEP to maintain efficient links between potential recipients and donors. The network has been considerably expanded and now includes more than 100 countries in all regions of the world.

25. The fourth meeting of the Advisory Group on Environmental Emergencies was held from 20 to 21 November 2000 in Brussels to discuss cooperation between UNEP and OCHA and the work of the joint unit. The Advisory Group invited OCHA and UNEP to reinforce their cooperation in emergency response and requested that the joint unit be maintained and integrated into OCHA's disaster response system in Geneva. The Group recommended that the joint unit continue to develop partnerships and collaborative arrangements, expressed support for strong links between the joint unit and the APELL programme and requested the joint unit to focus on practical assistance to countries facing disasters with environmental consequences, particularly developing countries. The meeting welcomed OCHA's decision to fund the head of the joint unit.

IV. FUTURE WORK

26. Taking into consideration existing mechanisms in the United Nations system and the mandate assigned to it, UNEP's role focuses on the environmental dimensions of natural and man-made disasters. It plays a role in all phases of emergency management, including prevention, preparedness, assessment, response and mitigation, with emphasis on prevention. UNEP monitors, assesses and disseminates information about global, regional and national environmental conditions, changes and trends through its Global Environmental Information Exchange Network (UNEPnet), including UNEP-Global Resource Information Database (GRID), UNEP-INFOTERRA, the Global Environment Outlook process and networks of national focal points. UNEP plans to develop a general approach for the analysis of increasing vulnerability due to environmental changes and prepare a conceptual approach for the development of environmental vulnerability indexes. A Web site on environmental vulnerability, global vulnerability

indexes and a global vulnerability atlas on environmental emergencies will be developed and periodically updated to provide authoritative reference information for early warning. UNEP will also provide inputs for evaluation of land management activities.

27. The APELL programme will continue to be implemented as a tool for disaster prevention and preparedness, and UNEP will continue to strengthen its cleaner production programme. Bearing in mind that environmental conventions and action plans contribute to the prevention and reduction of risks of environmental emergencies, UNEP will implement the corresponding component of the Programme for the Development and Periodic Review of Environmental Law for the First Decade of the Twenty-first Century (Montevideo Programme III). It will promote and assist in the development and implementation of coherent and effective legal codes, such as the conventions on prior informed consent and persistent organic pollutants, for building up long-term capacity in disaster prevention and preparedness. It will also continue to facilitate collaboration and identify synergies among conventions and action plans. UNEP will support Governments in strengthening national legal and institutional arrangements for environmental emergency management and improve and refine the delivery of environmental emergency services to Governments upon request. It will continue to focus on providing practical assistance to countries, especially developing countries, facing disasters with environmental consequences. UNEP will also continue to maintain and strengthen links with potential recipient and donor countries and expand the existing global network of national focal points. UNEP will carry out post-emergency assessment of the environmental impacts of environmentally related disasters and assist Governments in developing capacity to undertake assessments by promoting and using national consortiums and information networks. UNEP will further maintain and strengthen cooperation and coordination with OCHA, the ISDR secretariat, UNCHS (Habitat), UNHCR, UNDP, the World Bank and other United Nations agencies and international and non-governmental organizations so as to provide a more coordinated approach to environmental emergency prevention, preparedness, assessment, response and mitigation.

Annex

STRATEGIC FRAMEWORK ON EMERGENCY PREVENTION, PREPAREDNESS,
ASSESSMENT, RESPONSE AND MITIGATION

I. FRAMEWORK AND STRATEGY

1. In its decision SS.V/2 of 22 May 1998, the Governing Council welcomed the proposals of the Executive Director to pursue a programme of reform to strengthen the environmental emergency response capacity of the United Nations. Pursuant to this, at its meeting of 5 February 1999, the Governing Council requested the Executive Director to focus and strengthen UNEP's contribution to the coordination of United Nations responses to natural disasters caused by natural phenomena or natural phenomena coupled with the effects of human actions and to ensure that UNEP's work in this arena is tied closely to its overall work on environmental assessment and early warning. This requires a strategy for dealing with emergency prevention, preparedness, assessment, response and mitigation. This document provides a framework for UNEP's future work in the field of emergencies by identifying the institutional and global contexts for action by UNEP and by clarifying UNEP's role within the United Nations system with regard to environmental emergencies and the environmental aspects of complex emergencies.

A. Mandate

2. From its inception, UNEP has been charged with three related primary tasks: setting an environmental agenda and providing substantive guidance across the entire spectrum of United Nations activities; coordinating system-wide efforts in many environment-related areas; and administering funds to support environmental projects and programmes. These responsibilities were reiterated in the Nairobi Declaration on the Role and Mandate of UNEP (1997) and in the Malmö Ministerial Declaration (2000). Emergency prevention and mitigation fit solidly within this mandate. As the impact of environmental emergencies has become more pronounced and as global responses to emergencies have received more attention from within the United Nations, the function of setting an agenda and coordination have grown increasingly important. UNEP's special mandates, to assess global conditions in order to identify potential environmental problems and new ways to address the complex effects of environmental change on sustainable development and to underscore the transnational character of the global environment agenda, require UNEP to pay particular attention to the broad causes and effects of environmental emergencies.

B. Global context

3. Increasing global attention to emergencies, whether man-made or natural, reflects a complex interplay of economic, social, political and environmental conditions. High rates of population growth and urbanization place a growing number of individuals at risk during disasters. Weak or small economies, in particular, can be seriously compromised when property and investments are threatened. Inadequate capacity to cope with emergencies, whether because of weak governance mechanisms or imbalances in the concentration and use of economic resources, can be both a cause and a consequence of vulnerability. In turn, vulnerable environments render emergencies even more destructive. Poverty is a serious risk to the environment, in general, and to human settlements and biodiversity, in particular. The increasing frequency and severity of man-made and natural disasters and technological accidents may well be changing the global environment in ways that will directly affect the international economy. All of these threats to the environment have been apparent in recent natural disasters and environmental emergencies. The most pressing disasters of the past two years have strained national, regional and global resources. Many natural disasters have occurred in tandem with national or cross-border conflicts, forcing the environmental agenda to compete with global concerns such as peace-making and peace-building, relief and recovery, poverty alleviation and sustainable development.

4. Emergencies are commonly defined as the sudden onset of events that have prolonged and severe effects. Environmental emergencies are sudden natural and man-made disasters or accidents that cause or threaten to cause environmental damage and loss of human life and property. Despite their abrupt outbreak, many emergencies leave their mark over a long period on the life of a country or region. Many aspects of emergencies require a combination of quick response and long-term mitigation. The most important consideration in meeting emergencies is not the event itself, but the capacity of affected populations to withstand the effects and to recover.

5. Complex emergencies and environmental emergencies intersect in a number of ways. Most important for UNEP, emergencies include events, actions or accrued circumstances that produce dramatic effects on local, regional and global environmental conditions. They may be environmental in origin, but can also be the result of war, inequitable development, incorrect policies, inappropriate development choices or administrative shortcomings. Emergencies affect the environment when they have direct or indirect effects on ecology and human settlements that last far beyond the scope of immediate humanitarian response. Changing ecological conditions can provoke emergencies by placing concurrent stresses on the environment. Preventing emergencies and mitigating the effects of disasters are primary components in global efforts to ensure environmental security.

C. Institutional context

6. Traditional responses to emergencies have tended to focus on humanitarian action, and the United Nations has been a leader in mobilizing resources to meet the immediate needs of stricken populations. In protracted emergencies, humanitarian assistance tends to accompany development efforts. As the international community has become more sophisticated in its response to disasters, the mix of relief and development assistance has taken on new dimensions. In a recent report on the subject (A/54/154-E/1999/94) the Secretary-General has highlighted the obligation of the international community to respond to emergencies and the important contribution the United Nations can make by providing coordination and effective assistance. The environmental component of the United Nations emergency response has increased in recent years, but is not yet treated as a central element in emergency prevention, preparedness, assessment, response and mitigation. UNEP has contributed to system-wide response through specific activities and through inter-agency collaboration among a wide variety of partners. It is clear that further coordination and cooperation on environmental matters depends on UNEP's ability to set an environmental agenda for emergency response. In particular, UNEP's interest in prevention, preparedness, assessment, response and mitigation should help the United Nations to focus attention on the conditions that lead to emergencies and resource management for immediate response to disasters.

D. UNEP goals in emergency prevention and mitigation

7. In defining the future role for UNEP within United Nations emergency-related activities, the following goals are paramount: to reinforce the importance of environmental concerns in emergency prevention, preparedness, assessment, response and mitigation; to integrate environmental concerns into planning for relief, rehabilitation, reconstruction and development; to focus the attention of the United Nations and its partners on the transnational and global aspects of emergencies; and to enhance the capacity of United Nations agencies, funds and programme to undertake short-term emergency response based on long-term environmental considerations.

8. Each of these goals is intended to strengthen not only the capacity of the United Nations and its partners but also the capacity of peoples and countries to prepare for emergencies, survive catastrophe, manage resources to sustain development and deploy resources to ensure the security of the environment.

E. UNEP's role in emergency prevention and mitigation

9. Building on its current resources and strengths, UNEP's primary role in emergencies is to marshal intellectual resources to assure that the environmental aspects of emergencies are clearly understood and that the imperatives for prevention and preparedness, including prediction and early warning, are fully

recognized as critical to human and environmental security. To develop and maintain an environmental agenda for emergency prevention and preparedness, UNEP must translate its sectoral responsibilities into a broader capacity to act as a think tank for the United Nations on environmental matters. This effort requires four concurrent investments by UNEP: developing methodologies for early warning, undertaking environmental assessments of past and current emergencies, building and maintaining analytical capacity across the United Nations and among its partners through collaboration and training, and initiating and reinforcing institutional structures for global environmental governance that can help to prevent emergencies and alleviate their effects.

10. All of these efforts should underscore UNEP's efforts to create a new global agenda for emergency prevention and preparedness.

F. Strategy to pursue this framework

11. UNEP can best serve the international community by capitalizing on its analytical strengths and working with its partners to join traditional emergency response to innovative policies and practices directed toward prevention and preparedness. To do so will require two mutually reinforcing efforts of refocusing and reorganizing internal resources to develop an integrated emergency prevention programme and developing a strategy for collaboration within the United Nations and among its closest partners.

12. To set the stage for both agendas, steps should be taken to integrate prevention, preparedness, assessment, response and mitigation. All emergency-oriented activities should be integrally related, and the organization of resources and personnel should reflect close ties between prevention and preparedness and assessment, response and mitigation. In this effort, the role of assessment - early warning for prevention, post-incident to refine policies and practices, and globally to reinforce a broad prevention agenda - is critical. As a corollary, UNEP's emergency agenda should be integrated into its overall programme, so that its primary analytical tools take advantage of its increasing expertise in prediction, prevention and preparedness. To ensure that analysis is put into practice and that policy continues to be refined, UNEP activities should be concentrated on a discrete set of activities, integrating short, medium and long-term activities.

13. A small number of staff working on UNEP's emergency agenda will reinforce UNEP's participation in inter-agency missions, research and training. UNEP's contribution should be based on its technical expertise and its capacity to mobilize external technical, fiscal and human resources on behalf of the environmental agenda.

14. As the United Nations environmental custodian, UNEP is well suited to initiate a program of inter-agency training that will build and maintain environmental capacity across the entire system. By working with the United Nations Office for the Coordination of Human Affairs (OCHA), the Office of the United Nations High Commissioner for Refugees (UNHCR), the United Nations Development Programme (UNDP), the United Nations Centre for Human Settlements (UNCHS) (Habitat) and other agencies and programmes, UNEP can introduce emergency-prevention methods and practices and help prevent further environmental problems.

15. UNEP's key role in the international community is its technical expertise in the field of the environment. Among the most important elements of its emergency activities are its vulnerability assessments and predictive methodologies. UNEP is particularly well placed to examine the broad implications of emergencies for the environment and the environmental aspects of complex emergencies. Many analytical products, including the biannual Global Environment Outlook, can easily accommodate an emergency orientation. In so doing, UNEP's own methods will be refined.

II. AGENDA FOR ACTION

A. Background

16. UNEP's mandate for action with respect to environmental emergencies and environmental aspects of complex emergencies stems from decisions of the Governing Council, requests of governments and availability of resources. It undertakes activities in close coordination with OCHA, the UNCHS (Habitat), UNHCR, UNDP, the World Bank and other United Nations agencies and international and non-governmental organizations. As part of UNEP's overall reform and revitalization process, increased importance has been given to environmental emergencies and the strengthening of UNEP's capacity in the area of emergency prevention, preparedness, assessment, response and mitigation. UNEP has reinforced its capacity with the addition of professional staff and increased financial resources.

17. Environmental law is an important tool for building up long-term capacity in preventing and reducing environmental emergencies and their effects. UNEP has played a catalytic role in developing and promoting the effectiveness of multilateral environmental agreements. The Programme for the Development and Periodic Review of Environmental Law for the First Decade of the Twenty-First Century (Montevideo Programme III) has set out a plan in this area.

18. The Awareness and Preparedness for Emergencies at Local Level (APELL) programme, an important preparedness tool, was developed by UNEP in cooperation with governments and industry and launched in 1988. The APELL programme recognizes that the greatest opportunity for reducing the effects of environmental disasters is through implementation of prevention and preparedness initiatives at the local level. It seeks to minimize the occurrence and harmful effects of technological accidents and emergencies resulting from human activity or as the consequence of natural disasters, particularly in developing countries. The APELL programme has been successfully introduced in more than 30 countries and in over 80 industrial communities worldwide. Remarkable changes have occurred in many of the communities that have implemented APELL, such as general safety consciousness and increased concern for environmental issues. Many reports, materials and tools generated by APELL are widely used to improve emergency preparedness and response.

19. Pollution prevention through cleaner production is a process that adopts cleaner, safer and environmentally sound technologies during the whole process of production and consumption, from the exploitation of resources to the disposal of wastes, making full use of materials, preventing pollution and reducing risks to humans and the environment. Cleaner production is a fundamental approach to the prevention and reduction of risks of environmental emergencies, especially technological emergencies. UNEP has promoted adoption of cleaner production processes and technologies throughout the world and assisted countries in establishing cleaner production centres. To date, more than 200 high-level decision makers from government and industry from over 40 countries have signed the 1998 UNEP International Cleaner Production Declaration.

20. UNEP's Global Resource Information Database (GRID) programme has generated disaster-related information at short notice, including maps (forest fires in several countries, environmental consequences of the conflict in Kosovo) identifying environmentally sensitive areas that are of great use during emergency events and also serve as an important tool for early warning.

21. UNEP's activities in response to environmental emergencies have been carried out in cooperation with OCHA through the Joint UNEP/OCHA Environment Unit. Since its establishment in 1994, the joint unit has assisted many countries in responding to a variety of environmental emergencies by effectively using its tools and coordination and response capacities for early mitigation of the negative impacts of environmental emergencies. Permanent monitoring of emergencies, prompt notification of the international community, brokerage of bilateral assistance, swift mobilization of multilateral assistance and the deployment of experts for emergency assessments are all activities undertaken by the joint unit to assist countries affected by environmental emergency events. On behalf of UNEP and OCHA, the joint unit has

coordinated and mobilized international assistance for a number of major environmental emergency events including those in the Balkans, Hungary, Indonesia, Kenya, Romania, Tajikistan, Turkey, Venezuela and Yugoslavia.

22. Post-emergency assessment of environmental impacts has been an important component in UNEP's emergency programme. An example of UNEP's activities in this area is the joint UNEP/UNCHS (Habitat) Balkans Task Force. The Task Force conducted a post-conflict assessment in Kosovo and made recommendations in the report "The Kosovo conflict - consequences for the environment and human settlements" (1999). The Task Force report is a reliable source of information and provides a management tool to the international community for the overall emergency humanitarian effort. UNEP has conducted post-emergency assessments in many other countries in the past two years in relation to chemical spills, forest fires, floods, earthquakes, refugees, drought and waste sites. These efforts have contributed to mitigation of disasters and to the prevention of and preparedness for future disasters.

B. Future actions

23. UNEP needs more a comprehensive approach and clearly defined role and responsibilities for more integrated emergency management. This can be best achieved through consolidation of services and activities, identification of critical linkages, internal improvement and expansion. This is of particular importance given the cross-cutting nature of environmental emergencies and the fact that successful prevention or reduction of the impacts of environmental emergencies relies heavily on the commitment and cooperation of many parties. The following areas constitute the UNEP agenda for action which will strengthen UNEP's environmental emergency capacity.

24. Prevention and preparedness. Prevention and preparedness are two distinct elements in the emergency management cycle. Prevention is the cornerstone of any comprehensive emergency programme and aims to eliminate or reduce occurrences of disasters. UNEP pursues prevention through programmes on environmental law and cleaner production that contribute to long-term prevention and reduction. Preparedness measures aim to increase public preparedness through promotion of awareness of the risks of emergencies. UNEP pursues this goal by implementing the APELL programme. Prevention and preparedness are closely linked and both contribute to a reduction of risk and loss of social and economic infrastructure and environmental resources.

25. The following accomplishments are expected: catalysis of the development and implementation of environmental codes; strengthening of the APELL programme for increasing public awareness and preparedness for environmental emergencies; strengthening of the cleaner production programme for preventing and reducing environmental emergencies and their effects; and enhancement of national and international ability to prepare for environmental emergencies.

26. Activities can be separated into the three areas of environmental law, the APELL programme and the cleaner production programme.

Environmental law

- (a) Implementation of the Programme for the Development and Periodic Review of Environmental Law for the First Decade of the Twenty-first Century (Montevideo Programme III);
- (b) Promotion and assistance in the development and implementation of coherent and effective legal codes, such as the Prior Informed Consent Convention and the Persistent Organic Pollutants Convention, for building up long-term capacity in disaster prevention and preparedness;
- (c) Study of the feasibility of an international legal framework for international cooperation in dealing with environmental emergencies;

- (d) Facilitation of collaboration and identification of synergies among conventions and action plans for strengthening the capacity to prevent and reduce environmental emergencies;
- (e) Support in strengthening national legislation and institutions for environmental emergency prevention, preparedness, assessment, response and mitigation;
- (f) Encouragement of Governments to integrate disaster prevention, preparedness, assessment, response and mitigation into all relevant legislation and regulations (environmental, health, industrial, financial, insurance);
- (g) Assistance to Governments in building capacity in regulatory agencies to incorporate emergency prevention principles into the approval and licensing processes for all hazardous installations.

The APELL programme

- (a) Strengthening the APELL programme as a tool for disaster prevention and preparedness, covering both natural disasters and technological accidents;
- (b) Encouraging Governments to adopt the principles of the APELL programme;
- (c) Preparation and updating of APELL technical publications and electronic information systems;
- (d) Development and promotion of the application of APELL policies, management systems, codes, sectoral guidelines, methodologies and instruments;
- (e) Organization of conferences and workshops on APELL;
- (f) Promotion of APELL and support for national APELL centres;
- (g) Facilitation of expert networks;
- (h) Promotion of the incorporation of APELL principles into the processes of development agencies and other relevant organizations.

Cleaner production programme

- (a) Strengthening of the cleaner production programme;
- (b) Incorporation of risk assessment and risk reduction;
- (c) Preparation and updating of technical publications and electronic information systems and training to improve understanding of cleaner production;
- (d) Application of policies, management systems, codes, methodologies and instruments, including the International Declaration on Cleaner Production;
- (e) Provision of technical assistance to relevant centres and networks.

27. Assessment and early warning. Human society has become more exposed and vulnerable to natural disaster, human-made hazards and environmental changes. In order to reduce human vulnerability to hazards related to the interaction between environmental change and human society, it is critical to identify vulnerable regions and populations and to communicate useful information for decision-making. Systematic assessment and communication of the implications of environmental changes are a precondition for the provision of early warning for disaster preparedness and response. A major objective of the UNEP early warning and assessment programme is to evaluate the increasing vulnerability of human society owing to environmental and climate changes.

28. The following accomplishments are expected:

- (a) Information and data on issues of land management practices;

- (b) Information on the relationship between environmental health and human health;
- (c) Assessment of environmental risk and vulnerability caused by variations in land use, land cover and environmental change;
- (d) Establishment of a Web site on environmental vulnerability, the development of vulnerability indexes and a global vulnerability atlas related to the potential impact of environmental emergencies;
- (e) Post-emergency assessments of environmental impacts and enhancement of governments' capacity to carry out assessments.

The following activities will be carried out:

- (a) Provision of information about environmental conditions, changes and trends through the Global Environmental Information Exchange Network (UNEPnet) and UNEP-GRID, UNEP-INFOTERRA and the Global Environment Outlook process;
- (b) Review of work in the area of vulnerability assessment and indexes;
- (c) Development of a general approach for the analysis of increasing vulnerability due to environmental changes;
- (d) Preparation of a conceptual approach for the development of environmental vulnerability indexes;
- (e) Establishment of a Web site on environmental vulnerability;
- (f) Development of global vulnerability indexes and a global vulnerability atlas for early warning;
- (g) Post-emergency assessments of environmental impacts of environment-related disasters;
- (h) Evaluation of prevention and mitigation of the environmental impact of refugees in Africa.

29. Response and mitigation. As environmental emergencies increase in frequency and magnitude, expectations grow for timely and effective emergency response. UNEP will further strengthen its cooperation with OCHA and other organizations and carry out emergency response activities through the joint UNEP/OCHA Environment Unit.

30. The following accomplishments are expected:

- (a) Timely mobilization of international assistance to minimize the impacts of environmental emergencies;
- (b) Timely mitigation and remediation of the environmental impacts arising from emergencies;
- (c) Better quality emergency management, mitigation and response through rapid access to tools and resources;
- (d) More efficient and timely dissemination of information and overall emergency coordination and management.

The following activities will be carried out:

- (a) Assessment missions to countries affected by environmental emergencies and expansion of the global network of national focal points for environmental emergencies;
- (b) Development of a post-incident assessment framework to evaluate international assistance after incidents;
- (c) Establishment of a computerized tracking system to identify and analyse trends in environmental emergencies for improved prevention, preparedness and response;

- (d) Meetings of the Advisory Group on Environmental Emergencies;
- (e) Implementation of the project for the clean-up of environmental hot spots following the Kosovo conflicts and preparation of guidelines on assessment and remedial measures for post-conflict environmental damage, in cooperation with the United Nations Office of Project Services.

31. Coordination within UNEP. UNEP will strengthen its internal coordination of the principal elements of emergency management. The UNEP task force on environmental emergencies will be the structure to achieve the desired coordination of emergency-related issues in UNEP.

32. Communications and publicity. UNEP will make full use of the media and public information channels in alerting policy makers about emergencies.

33. Inadequate financial resources are a major constraint for UNEP to effectively strengthen its capacity in the area of environmental emergencies. Additional core funding is needed to ensure an adequate level of preparedness within UNEP to facilitate prompt response around the globe. It is essential that additional reliable sources of funding are identified and mobilized for core environmental emergency management programmes. UNEP must develop innovative resource mobilization strategies and take measures to make operational the Trust Fund for Environmental Emergencies established in 1997.
