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GLOBAL MINISTERIAL ENVIRONMENT FORUM

POLICY ISSUES: STATE OF THE ENVIRONMENT

**CONTRIBUTION TO FUTURE SESSIONS OF THE COMMISSION
SUSTAINABLE DEVELOPMENT**

**STATE OF THE GLOBAL ENVIRONMENT AND CONTRIBUTION OF THE UNITED NATIONS
ENVIRONMENT PROGRAMME TO ADDRESSING ENVIRONMENTAL CHALLENGES**

Report of the Executive Director

Background

1. The present report has been prepared in response to a number of decisions of the twentieth session and the fifth special session of the Governing Council, as detailed in the section on the mandate below, and relates to activities undertaken by the United Nations Environment Programme in such areas as: environmental assessment and information; the development and implementation of environmental policy instruments relating, *inter alia*, to land degradation, chemicals, land-based activities, coral reefs and biosafety; support to Africa; technology transfer and industry; the contribution of UNEP to future sessions of the Commission on Sustainable Development; and the environmental situation in the occupied Palestinian and other Arab territories.
2. The report is submitted for consideration by the Governing Council at its twenty-first session.

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INTRODUCTION

A. Mandate

3. The present report has been prepared in pursuance of the following Governing Council decisions: 20/1 of 4 February 1999 (Global Environment Outlook); 20/2 of 4 February 1999 (Environmental situation in the occupied Palestinian and other Arab territories); 20/3 of 3 February 1999 (Programme for the development and periodic review of environmental law beyond the year 2000); 20/4 of 4 February 1999 (Promotion of access to information, public participation in decision-making and access to justice in environmental matters); 20/5 of 4 February 1999 (Reform of INFOTERRA to ensure better public access to environmental information); 20/6 of 5 February 1999 (Policy and advisory services of the United Nations Environment Programme in key areas of institution-building); 20/8 of 5 February 1999 (Further improvement of the international response to environmental emergencies); 20/10 of 5 February 1999 (Land degradation: support for the implementation of the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa); 20/19 B of 4 February 1999 (Contribution of the United Nations Environment Programme to the Commission on Sustainable at its seventh session: Global Programme of Action for the Protection of the Marine Environment from Land-based Activities); 20/19 C of 5 February 2000 (Contribution of the United Nations Environment Programme to the Commission on Sustainable Development at its seventh session: Sustainable tourism); 20/19 E of 5 February 1999 (Contribution of the United Nations Environment Programme to the Commission on Sustainable Development at its seventh session: Changing production and consumption patterns); 20/21 of 4 February 1999 (Coral reefs); 20/22 of 4 February 1999 (Outcome of the Conference of Plenipotentiaries on the Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade); 20/23 of 4 February 1999 (Chemicals management); 20/24 of 4 February 1999 (International action to protect health and the environment through measures which will reduce and/or eliminate emissions and discharges of persistent organic pollutants, including the development of an international legally binding instrument); 20/26 of 4 February 1999 (); 20/27 of 4 February 1999 (Support to Africa); 20/29 of 4 February 2000 (Policy and advisory services of the United Nations Environment Programme in the key areas of economics, trade and financial services); and the first of the other decisions of 5 February 1999 (Provisional agenda, date and place of the twenty-first session of the Governing Council).

4. These actions have been undertaken within the framework of the concentration areas of activities of UNEP as defined in Governing Council decision SS.V/2. In addition, the report highlights the involvement of UNEP in the issues for consideration by the Commission on Sustainable Development at its ninth session.

B. Suggested action by the Governing Council

5. The Governing Council may wish to consider the adoption of decisions along the lines suggested below.

A. Implementation of the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa

The Governing Council,

Recalling its decision 20/10 of 5 February 1999,

Recognizing that land degradation is a major problem for many countries, particularly those in Africa,

Recalling also the Millennium Report of the Secretary-General (A/54/2000), and particularly section C, on "Defending the soil", of chapter V, entitled "Sustaining our future",

Noting the experience of the United Nations Environment Programme in developing desertification assessments and databases, in research initiatives and cooperative studies with the Scientific Committee on Problems of the Environment of the International Council of Scientific Unions, and in numerous joint programmes and studies on desertification organized with various centres of excellence, including those of the Consultative Group for International Agricultural Research, and with other United Nations organizations,

1. Welcomes the efforts of the United Nations Environment Programme to assist countries affected by land degradation, in strengthening cooperation and collaboration with other United Nations bodies and agencies and other organizations in the field of land degradation, and in developing and implementing land degradation projects as they relate to the focal areas of the Global Environment Facility, and to assist Governments in the implementation of the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa;
2. Welcomes the increasing collaboration between the Programme, the United Nations Centre for Human Settlements (Habitat), the International Centre for Research in Agroforestry and other Nairobi-based agencies in addressing the environmental aspects of land degradation;
3. Also welcomes the intergovernmental dialogue being conducted within the framework of the regional ministerial conferences on the environment relating to land degradation and its impacts on the environment;
4. Further welcomes the efforts made by the Programme to review and analyse its role in land use management, including soil protection, in conformity with the functional approaches approved by the Governing Council at its twentieth session;
5. Requests the Executive Director to strengthen the capability of the Programme to respond to global land issues, in order to fulfil its mandate as task manager for chapter 12 (and other related chapters) of Agenda 21, and to support the Conference of the Parties to the Convention to Combat Desertification, in particular its Committee on Science and Technology, in the assessment and monitoring of desertification and the enhancement of the scientific and technological knowledge base on land degradation;
6. Requests the Executive Director to strengthen further the functional integration of the Programme's land resource management and soil conservation policy, along the lines reported in its land policy review (UNEP/GC.21/INF/13);
7. Requests the Executive Director to strengthen collaboration between the Programme and the World Bank and the United Nations Development Programme, with a view to enhancing assistance from the Global Environment Facility to countries for activities related to land degradation, given the interlinkages between land degradation and the focal areas of the Global Environment Facility;
8. Also requests the Executive Director to strengthen collaboration with relevant United Nations organizations and agencies and other organizations concerned with assistance to countries for mitigating land degradation and for the implementation of the Convention to Combat Desertification;
9. Further requests the Executive Director, in cooperation with other bodies, in particular the secretariat of the Convention to Combat Desertification, the Global Mechanism under the Convention and the other implementing agencies of the Global Environment Facility, as well as relevant regional and subregional organizations, to continue to assist countries affected by land degradation in the development of a pipeline of land degradation projects for financing by the Global Environment Facility and other relevant financial mechanisms.

B. Chemicals

1. Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

The Governing Council,

Recalling chapter 19 of Agenda 21 and Council decisions 18/12 of 26 May 1995, 19/13 A of 7 February 1997, SS.V/5 of 22 May 1998 and 20/22 of 4 February 1999,

Noting with appreciation the work accomplished by the Intergovernmental Negotiating Committee for an International Legally Binding Instrument for the Application of the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade in overseeing the implementation of the interim prior informed consent procedure and preparing for the first meeting of the Conference of the Parties,

Concerned about the slow progress recorded to date in ratifying, accepting, approving or acceding to the Convention,

1. Calls upon States and regional economic integration organizations entitled to do so to ratify, accept, approve or accede to the Convention with a view to bringing it into force as soon as possible;
2. Also calls upon States and regional economic integration organizations to make voluntary contributions to the trust fund established by the United Nations Environment Programme in order to support the interim arrangements and the operation of the Conference of the Parties until the end of the fiscal year in which the first meeting of the Conference of the Parties takes place, and to ensure the full and effective participation of developing countries and countries with economies in transition in the further work of the Intergovernmental Negotiating Committee;
3. Requests the Executive Director to report to the Governing Council at its twenty-second session on progress made in implementing the interim prior informed consent procedure and in preparing for the first meeting of the Conference of the Parties, as well as on progress in implementing the present decision.

2. Convention on implementing international action on certain persistent organic pollutants

The Governing Council,

Recalling its decisions 18/32 of 25 May 1995, 19/13 C of 7 February 1997 and 20/24 of 4 February 1999 on persistent organic pollutants,

Noting with appreciation that through the "POPs Club" funding effort Governments and other actors in a position to so provided the necessary financial resources to enable the full and effective functioning of the Intergovernmental Negotiating Committee for an International Legally Binding Instrument for Implementing International Action on Certain Persistent Organic Pollutants, as called for in paragraph 17 of Council decision 19/13 C,

Having considered the report of the Executive Director on international action to protect human health and the environment through measures which will reduce or eliminate emissions and discharges of persistent organic pollutants, including the development of a legally binding instrument (UNEP/GC.21/2, chap. II, sect. C),

1. Welcomes the completion of the negotiations of the convention for implementing international action on certain persistent organic pollutants, ^{1/} which was accomplished before the end of 2000, as requested in paragraph 12 of its decision 19/13 C;
2. Calls on Governments and regional economic integration organizations to adopt and sign the convention at the conference of plenipotentiaries to be held in Stockholm on 22 and 23 May 2001, and to ratify, accede to or accept the convention thereafter;
3. Authorizes the participation of the secretariat of the United Nations Environment Programme in an interim secretariat and in a secretariat to the convention, if so decided by the conference of plenipotentiaries of the convention, provided that the proposed arrangements are satisfactory to the Executive Director and that costs are met through extrabudgetary resources;
4. Invites the Executive Director to take action to facilitate voluntary implementation of the convention prior to its entry into force if such action is called for by the conference of plenipotentiaries of the convention;
5. Appeals to Governments as well as intergovernmental and non-governmental organizations to consider providing sufficient financial resources necessary for the implementation of interim arrangements for the convention prior to the first conference of the parties;
6. Requests the Executive Director to continue taking action as requested by the Council in its decision 19/13 C, including the immediate action identified in paragraph 13 of that decision, provided that costs are met through extrabudgetary resources;
7. Encourages Governments and also intergovernmental and non-governmental organizations to provide financial contributions and contributions in kind to support implementation of the immediate action called for in paragraph 13 of decision 19/13 C.

C. Global Programme of Action for the Protection of the Marine Environment from Land-based Activities

The Governing Council,

Having considered the information provided by the Executive Director on the implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (UNEP/GC.21/2, chap. II, sect. C, and UNEP/GC.21/INF/9),

Recognizing the important implications of failure to address land-based activities with respect to human health, poverty alleviation and food security,

Expressing its serious concern that the economic costs to society of such land-based activities are enormous and are further increased by the delay in implementing appropriate control measures,

Also expressing its concern that the productive capacity and environmental benefits of the marine environment, including estuaries and near-shore coastal waters, are increasingly being degraded, primarily by pollution from sewage, nutrients and sediment mobilization and by the physical alteration and destruction of habitats,

Also recognizing the need to mainstream the objectives of the Global Programme of Action into appropriate programmes and activities at the local, national, regional and global levels,

^{1/} For the text of the Convention as approved by the Intergovernmental Negotiating Committee for an International Legally Binding Instrument for Implementing International Action on Certain Persistent Organic Pollutants at its fifth session, see the report of that session (UNEP/POPS/INC.5/7).

Further recognizing that the Global Programme of Action cannot be effectively implemented without taking appropriate actions at the level of river basins draining into coastal zones,

Recalling its decision 19/14 A of 7 February 1997 on implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, in which it called for the strengthening of the regional seas programme as a main mechanism to facilitate implementation of the Global Programme of Action,

Further expressing its concern at the discrepancy between the current and desirable levels of participation by United Nations agencies and programmes and international financing institutions in activities related to implementation of the Global Programme of Action,

1. Notes with appreciation the work of the United Nations Environment Programme in giving new momentum to the implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, in particular in the preparations for the first intergovernmental meeting to review progress in implementing the Programme of Action, the development of the clearing-house mechanism and work in addressing sewage as a major land-based pollutant;

2. Urges Governments to strengthen their efforts in implementing the Global Programme of Action and to contribute actively to the first intergovernmental review meeting;

3. Also urges Governments to ensure that relevant United Nations agencies and organizations incorporate the implementation of the Global Programme of Action in their work programmes;

4. Further urges Governments to involve international financial institutions, non-governmental organizations, the private sector and other stakeholders and major groups, through the promotion of partnerships, in efforts to implement the Global Programme of Action;

5. Notes with appreciation the proactive role of the Global Environment Facility in facilitating the implementation of the Global Programme of Action, and encourages it to continue supporting relevant projects;

6. Urges international financial institutions, including the World Bank, the International Monetary Fund and the regional development banks, to accord high priority to projects to implement the Global Programme of Action;

7. Requests the Executive Director to pay due attention in the work programme of the United Nations Environment Programme to activities designed to address the negative effects of sewage, nutrients and sediment mobilization and the physical alteration and destruction of habitats on the marine, coastal and associated freshwater environment;

8. Requests the Executive Director to organize the first intergovernmental review on the implementation of the Global Programme of Action in November 2001, with the participation of Governments, international governmental and non-governmental organizations, international and regional financial institutions, the private sector and other stakeholders and major groups;

9. Requests the Executive Director to pay due attention in the intergovernmental review meeting to the use of innovative financial mechanisms for implementing the Global Programme of Action and to promote the involvement of Governments, the private sector, international financial institutions and civil society in addressing this issue;

10. Also requests the Executive Director to submit a progress report to it at its twenty-second session on the activities of the United Nations Environment Programme as secretariat of the Global Programme of Action;

11. Urges Governments and international organizations in a position to do so to contribute to the General Trust Fund in Support of the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities.

D. Coral reefs

The Governing Council,

Recalling its decisions 18/33 of 26 May 1995, 19/15 of 7 February 1997 and 20/21 of 4 February 1999,

Noting with alarm the extensive evidence that coral reef ecosystems continue to be damaged or severely degraded as the result both of direct human activities and of global climate change, as evidenced by the increased global incidence of episodes of coral bleaching since its twentieth session,

1. Welcomes the Executive Director's circulation of the Renewed Call to Action of the International Tropical Marine Ecosystems Management Symposium, held in Townsville, Australia, in November 1998;
2. Notes with satisfaction the progress made in the coral-reef-related activities of the United Nations Environment Programme, including its coordinating role in the implementation of the International Coral Reef Initiative and the International Coral Reef Action Network, the establishment of a new Coral Reef Unit in the United Nations Environment Programme, as well as the ongoing collaboration between the Programme and relevant partners on coral-reef-related activities;
3. Supports the continued participation of the United Nations Environment Programme in the Global Coral Reef Monitoring Network, to promote the conservation and sustainable use of coral reef ecosystems, in particular in the light of recent scientific findings which indicate that 60 per cent of the world's coral reefs could be lost by 2030;
4. Underscores the need to strengthen the role of the regional seas conventions and action plans as implementing and coordinating mechanisms for the action phase of the International Coral Reef Action Network;
5. Requests the Executive Director to take appropriate action to ensure that each of the regional seas programmes prepares regional or subregional programmes in the area of conservation and sustainable use of coral reefs;
6. Also requests the Executive Director to increase existing collaborative efforts between the ongoing coral-related activities of the United Nations Environment Programme and multilateral environmental conventions, especially with the United Nations Framework Convention on Climate Change, the Convention on International Trade in Endangered Species of Wild Fauna and Flora and the Convention on Biological Diversity;
7. Requests the Executive Director further to increase fund-raising efforts to support coral-reef-related activities and to explore new potential funding mechanisms in designing relevant coral reef projects.

E. Biosafety

The Governing Council,

Recalling the wide commendation expressed at the fifth meeting of the Conference of the Parties to the Convention on Biological Diversity, held in Nairobi from 15 to 26 May 2000, for the outcome of the

United Nations Environment Programme/Global Environment Facility pilot biosafety enabling activity project and progress made by participating countries in identifying and prioritizing the requirements for biosafety capacity-building,

Also recalling that, both during the fifth meeting of the Conference of the Parties to the Convention on Biological Diversity and also at the Global Environment Facility's workshop on the pilot biosafety enabling activity project and the ministerial round table on capacity-building in developing countries to facilitate the implementation of the Cartagena Protocol on Biosafety, many countries expressed their desire to participate in a similar but expanded programme that would cater for the development of national biosafety frameworks,

1. Notes with appreciation the successful completion of the United Nations Environment Programme/Global Environment Facility pilot biosafety enabling activity project implemented by the national executing agencies of eighteen countries eligible for assistance from the Global Environment Facility, under the auspices of the United Nations Environment Programme in collaboration with the Information Resource for the Release of Organisms into the Environment and other institutions;
2. Commends the Global Environment Facility for the approval by the Council of the Facility of the follow-up United Nations Environment Programme/Global Environment Facility project on the development of national biosafety frameworks by up to one hundred developing countries and countries with economies in transition which are eligible for assistance from the Global Environment Facility, and welcomes that approval;
3. Congratulates the eighteen countries that participated in the UNEP/GEF Pilot Enabling Activity Project for their exemplary execution of the national component of the pilot project and invites the Global Environment Facility to consider providing further financial support to these countries and other countries for the implementation of national biosafety frameworks (or similar policy administrative, legislative biosafety frameworks) they have developed in preparation for the entry into force of the Cartagena Protocol on Biosafety;
4. Compliments countries that have signed the Cartagena Protocol on Biosafety, noting the need for its subsequent ratification, and congratulates those countries that have already ratified the Protocol;
5. Encourages Governments that have not yet signed the Protocol to do so and urges all signatories to the Protocol to expedite the necessary ratification procedures;
6. Requests the Executive Director to continue mobilizing resources, including through the Global Environment Facility, for support to developing countries and countries with economies in transition for capacity-building initiatives in the field of biosafety that would facilitate the effective implementation of their national biosafety frameworks in the context of the Cartagena Protocol on Biosafety and the work of the Intergovernmental Committee for the Cartagena Protocol on Biosafety, in collaboration with the secretariat of the Convention on Biological Diversity and in keeping with the obligations of the parties to the Convention under its article 8 (g), taking into account the United Nations Environment Programme's International Technical Guidelines for Safety in Biotechnology;
7. Further requests the Executive Director to mobilize resources for and to support, as appropriate, the establishment or further strengthening of subregional and regional biosafety risk assessment capabilities in collaboration with the secretariat of the Convention on Biological Diversity and other relevant organizations;
8. Requests the Executive Director to report to it at its twenty-second session on progress in the implementation of the present decision.

F. Support to Africa

The Governing Council,

Recalling its decision 20/27 of 4 February 1999 on support to Africa,

Noting recent state-of-the-environment reports, such as the Global Environment Outlook report of the United Nations Environment Programme, on the escalating and emerging environmental problems in Africa,

Concerned about the increasing number of emerging and crisis situations in the world, particularly in Africa, as a result of global environmental changes with adverse social, cultural and economic effects,

Welcoming the commendable efforts made by the United Nations Environment Programme in implementing Governing Council decision 20/27,

Requests the Executive Director to continue to support the implementation of Governing Council decision 20/27, in particular within the framework of the African Ministerial Conference on the Environment, as well as other African regional and subregional organizations;

Also requests the Executive Director to assist African countries in the preparations for the second Earth Summit, to be held in 2002, in order to ensure that Africa's perspectives are incorporated in the inputs and outputs of the Summit;

Further requests the Executive Director to support actions that would enhance the implementation of the 1991 Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movements and Management of Hazardous Wastes within Africa and the 1968 Algiers Convention on the Conservation of Nature and Natural Resources.

G. Trade and environment

The Governing Council,

Recalling chapter 2 of Agenda 21, its decision 20/29 and the Malmö Ministerial Declaration,

Taking note with appreciation of the actions taken by the Executive Director in the field of trade and environment, including the ongoing collaboration between the United Nations Environment Programme, the World Trade Organization and the United Nations Conference on Trade and Development,

Having considered the report of the Executive Director entitled "State of the global environment and contribution of the United Nations Environment Programme to addressing environmental challenges" (UNEP/GC.21/2),

1. Reiterates as a general framework the need for a balanced and integrated approach to trade and environmental policies in pursuit of sustainable development;
2. Stresses that the environmental perspective should be taken into account in both the design and the assessment of macroeconomic policy, as well as practices of government and multilateral lending and credit institutions such as export credit agencies, as highlighted in the Malmö Ministerial Declaration;
3. Requests the Executive Director to further strengthen the secretariat in order for it to assist countries, particularly developing countries and countries with economies in transition, to enhance their capacities to develop and implement policies designed to integrate environmental considerations into macroeconomic policies, including trade policies, on the understanding such that assistance should be geared to reflect the socio-economic and development priorities as well as the needs and capacities of individual countries;

4. Supports further action by the Executive Director related to trade and environment, in close cooperation with the World Trade Organization and the United Nations Conference on Trade and Development, including the following:

(a) Examination of the environmental effects of trade with a view to improving understanding thereon;

(b) Examination of the effectiveness of market-based incentives in achieving the objectives of multilateral environmental agreements, including those agreements for which the United Nations Environmental Programme acts as secretariat;

(c) Examination of the relationship between trade measures in multilateral environmental agreements and international trade policy, with a view to ensuring that trade and environmental policies are mutually supportive;

5. Requests also the Executive Director to further promote the development and application of environmental impact assessment, environmental valuation, natural resource accounting and economic instruments in connection with the United Nations Environment Programme's technical assistance to developing countries and countries with economies in transition, as well as the implementation of multilateral environmental agreements;

6. Requests the Executive Director to further collaborate with the private sector, in particular the financial services sector, with a view to enhancing its contribution to sustainable development activities and programmes through the integration of environmental considerations onto the internal and external operations of financial services institutions;

7. Requests the Executive Director to continuously consult and brief Governments on the work of the United Nations Environment Programme on trade and environment and to report to it at its twenty-second session on its activities in this area.

H. Atmosphere

1. The Climate Agenda and the World Climate Impact Assessment and Response Strategies Programme

The Governing Council,

Recalling its decisions 16/41 of 31 May 1991, section IV, on the World Climate Programme, 17/24 C of 21 May 1993 on the Intergovernmental Meeting on the World Climate Programme, and 18/20 A of 26 May 1995 on the Climate Agenda,

Noting General Assembly resolution 52/200 of 18 December 1997 on international cooperation to reduce the impact of the El Niño phenomenon,

Having due regard for the need for early warning and preparedness measures to respond to climate-related disasters such as droughts, floods and forest fires,

Having considered the report of the Executive Director on the activities of the United Nations Environment Programme in the area of climate (UNEP/GC.21/2, chap. V, sect. A), in particular in the implementation of thrust 3 of the Climate Agenda, relating to studies of climate impact assessment and response strategies to reduce vulnerability and the World Climate Impact Assessment and Response Strategies Programme,

Noting the collaboration between the United Nations Environment Programme, the United States National Center for Atmospheric Research, the secretariat of the International Strategy for Disaster Reduction, the World Meteorological Organization and the United Nations University in the implementation of a project on reducing the impacts of environmental emergencies through early warning and preparedness, with particular reference to the case of the El Niño southern oscillation, funded by the United Nations Foundation for International Partnerships,

1. Takes note of the report of the Executive Director and requests that the United Nations Environment Programme should continue to carry out activities related to climate impact assessment and response strategies in partnership with the other agencies collaborating to implement the Climate Agenda;

2. Commends the exemplary collaboration displayed in the implementation of the El Niño projects funded by the United Nations Foundation for International Partnerships;

3. Requests the Executive Director to reconstitute the Scientific Advisory Committee of the World Climate Impact Assessment and Response Strategies Programme, taking into consideration the need to have on board expertise relevant to the new and emerging issues in the field of climate impact and adaptation assessments and response strategies to reduce vulnerability;

4. Urges Governments to consider the need:

(a) To establish or strengthen existing national climate programmes to undertake such tasks as the integrated assessment of climate impact and response strategies;

(b) To cooperate in building the technical and scientific capacity of developing countries, with a view to encouraging their full partnership in the climate agenda;

(c) To provide additional resources to international organizations involved in the implementation of the Climate Agenda, with a view to ensuring its effective implementation and management of the World Climate Impact Assessment and Response Strategies programme through the Inter-agency Committee on the Climate Agenda;

5. Urges relevant international organizations to continue to collaborate with the United Nations Environment Programme, within the integrating framework of the Climate Agenda, in furthering the objectives of the Agenda.

2. Intergovernmental Panel on Climate Change

The Governing Council,

Recalling its decision 17/24 A of 21 May 1993,

Having considered the report of the Executive Director on the work of the Intergovernmental Panel on Climate Change (UNEP/GC.21/2, chap. V, sect. A, subsect. 2) and the report orally provided to the Council by the Panel's Chair,

Noting with satisfaction the excellent scientific support that the Panel has given to the United Nations Framework Convention on Climate Change through its comprehensive assessment reports, special reports and other technical papers,

Recognizing the value of the Panel's assessments in addressing broader policy issues related to environment and sustainable development,

Noting further that the Global Environment Facility has approved a Panel project initiative on the assessment of the impact of and adaptation to climate change in multiple regions and sectors,

1. Takes note of the reports of the Executive Director and the Chair of the Intergovernmental Panel on Climate Change;
2. Requests the Executive Director, jointly with the Secretary-General of the World Meteorological Organization, to continue the arrangements to support the Panel, to ensure the participation of experts from all regions and to facilitate and encourage effective participation of experts from developing countries in Panel assessments;
3. Requests the Panel to continue to update the assessments of available information on the science, impacts, response options and social and economic aspects of climate change and on related methodologies for use and application by parties to the United Nations Framework Convention on Climate Change and other interested entities;
4. Requests the Executive Director actively to disseminate the findings of the Panel's third assessment report when it is published, with a view to raising awareness among young people and policy makers on the issue of climate change and the choice of available policy responses;
5. Urges Governments to continue to support the activities of the Panel and to contribute to the Intergovernmental Panel on Climate Change Trust Fund;
6. Also requests the Panel to report, through its Chair, to the Council at its twenty-second session on progress in its activities.

3. Global climate observing system

The Governing Council,

Recalling its decision 16/41 of 31 May 1991, section IV, on the World Climate Programme, and in particular paragraph 2 (e) on the creation of the Global Climate Observing System,

Noting decision 5/CP.5 adopted by the Conference of the Parties to the United Nations Framework Convention on Climate Change on research and systematic observation,

Recognizing the critical significance of observations in climate change detection and their significance in determining the timing and location of climate change impacts,

1. Requests the Executive Director to support, within available resources, the activities of the Joint Planning Office of the Global Climate Observing System in facilitating the participation of experts from developing countries and countries with economies in transition in the activities of the System;
2. Urges Governments to address deficiencies in the climate observing networks and invites them, in consultation with the secretariat of the Global Climate Observing System, to bring any capacity-building needs to the attention of the Conference of the Parties to the United Nations Framework Convention on Climate Change, as called for in paragraph 6 of decision 5/CP.5 of the Conference of the Parties to the Convention.

4. Programmatic support for atmosphere-related conventions

The Governing Council,

Considering the report of the Executive Director on programmatic support by the United Nations Environment Programme to the United Nations Framework Convention on Climate Change, the Vienna Convention on the Protection of the Ozone Layer and its Montreal Protocol on Substances that Deplete the Ozone Layer (UNEP/GC.21/2, chap. V, sect. A, subsect 5),

Noting in particular the activities of the Programme in support of the Global Climate Observing System, the Intergovernmental Panel on Climate Change and the Climate Agenda, which in part supports work being carried out under the Framework Convention on Climate Change,

Noting further the activities of the Programme relating to its clearing-house function for information on the ozone layer and its depletion, and activities related to the phasing out of ozone-depleting substances, institutional strengthening in developing countries and the strengthening and management of regional networks under the OzonAction programme,

Cognizant of the fact that recent scientific observations of the ozone layer over the North and South Poles seem to suggest that the expected improvement trend in the state of the ozone layer is not materializing,

1. Takes note of the report of the Executive Director and congratulates him on the activities undertaken programmatically in support of the United Nations Framework Convention on Climate Change, the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer;
2. Urges the Executive Director, within available resources, to continue these activities and, in particular, to encourage the exploitation of synergies between, on the one hand, the Framework Convention on Climate Change and, on the other, the Vienna Convention and the Montreal Protocol;
3. Calls upon the Executive Director to liaise with relevant United Nations agencies and international organizations with a view to addressing the task of systematic observation and assessment of the ozone layer.

I. Environmental situation in the occupied Palestinian and other Arab territories

The Governing Council,

Having considered the report of the Executive Director on the status of the preparation of a report on the environmental situation in the occupied Palestinian and other Arab territories (UNEP/GC.21/2, chap. I, sect. C),

Requests the Executive Director to prepare the report as soon as practicable and to submit it to the Governing Council at its twenty-second session.

I. ENVIRONMENTAL ASSESSMENT AND INFORMATION

A. Global Environment Outlook and other assessment reports

6. The present section covers activities undertaken by UNEP to implement Governing Council decision 20/1.

7. With reference to paragraph 2 of that decision, the Executive Director has taken into account the findings and recommendations of the second Global Environment Outlook report (GEO-2000) in the implementation of the UNEP programme of work for 2000-2001 and in planning the programme of work for 2002-2003. In particular, the Division of Early Warning and Assessment has been restructured and refocused to maximize support for global and regional integrated and thematic environmental assessment activities through the new UNEPnet data and information portal, regional resource centres and collaborative assessment networks and a dedicated product development unit.

8. A number of Governments and intergovernmental organizations have adopted the GEO process and framework for their state-of-the-environment assessment and reporting in response to national and international requirements. GEO reports and associated products have also been used by Governments to guide policy development.

9. In response to the provisions of paragraph 3 of the decision, a survey was carried out to establish the user profile of the GEO process and to analyse the actual use of the first GEO report (GEO-1), GEO-2000 and the GEO process. Detailed results of the survey may be found in the information document prepared for the current session (UNEP/GC.21/INF/8). The survey's main findings may be summarized as follows:

(a) The distribution profile of 3,525 complimentary copies of GEO-2000 (English version) shows the following as the three largest categories of recipients: policy developers and decision makers, including ministers of the environment (52 per cent); members of the research community (40 per cent); and members of the academic sector (30 per cent). ^{2/} Participants at global and regional launches of GEO-2000 and various relevant United Nations conferences received a further 1,475 copies. The largest category of the 123 respondents to the GEO-2000 reader questionnaire was the academic sector (35 per cent), followed by non-governmental organizations (18 per cent) and international or regional organizations (15 per cent). Although neither set of data provides a full readership profile, they both suggest that GEO-2000 is reaching the members of its intended audience. Internet access statistics gathered up to 6 November 2000 from the GRID-Arendal Web site, one of six GEO mirror sites, show over 400,000 accesses to the GEO-2000 Internet version from around the world;

(b) With regard to the use of GEO reports, 102 responses to a direct user questionnaire were received from environment ministers, their senior advisers and permanent representatives. The responses revealed that this prime target audience values the report as an important reference tool. Among other reasons, they consider it useful for providing policy guidance at the regional level (84 per cent); for providing information for national policy development (74 per cent); and for identifying emerging environmental issues (93 per cent). The 123 respondents to the GEO-2000 reader questionnaire indicate they use GEO-2000 for background information (58 per cent), for research and analysis (55 per cent) and as a general reference source (50 per cent). Readers of the report found it "very useful" (58 per cent) or "useful" (34 per cent), rating it highly for its: accuracy (excellent - 18 per cent, good - 55 per cent); technical information (excellent - 28 per cent, good - 54 per cent); and objectivity (excellent - 20 per cent, good - 55 per cent).

10. Case studies carried out during the survey suggest that GEO reports and the GEO process are playing an increasingly significant role in the following areas:

^{2/} Some recipients fell into more than one category of the profile typology, e.g., certain research institutions are also academic institutions. As a result, the overall total exceeds 100 per cent.

- (a) Improving and promoting participatory, integrated state-of-the-environment reporting at national and regional levels;
- (b) Enhancing aspects of the capacity of GEO collaborating centres;
- (c) Raising media awareness of global environmental issues and bringing them to the public's attention;
- (d) Enhancing the credibility of UNEP;
- (e) Providing reference material both for the academic sector and for shaping regional and national environmental policy development and decision-making. In this context, a number of recipients report that the process places a significant strain on institutional financial and human resources.

11. With regard to the optimal frequency and production schedule for future GEO and other related reports, UNEP submits that:

- (a) The GEO report should be published every two years. Those issues in the GEO report series falling on 10-year anniversaries of the 1972 Stockholm Conference on the Human Environment and the review of progress on Agenda 21 (2002, 2012 and so forth) should include a comprehensive, integrated assessment of the state of the global environment. The other four areas covered in each decade review should include major global environmental issues considered by the Governing Council to be highly crucial to the sustainability of the planet;
- (b) Publication of the GEO report should alternate with publication of the World Resources Report, produced jointly with the United Nations Development Programme (UNDP), the World Bank and the World Resources Institute (WRI);
- (c) UNEP should also produce at least one major Environment Outlook report in interim years to the GEO report. The interim report may be either a technical, a regional, a subregional or a thematic report, or a report targeted at specific meetings, forums or audiences.

12. Several important considerations underlie the above proposals. First, to ensure an adequate social response vis-à-vis urgent environmental issues, it is essential to keep these in the forefront of political, public and private-sector attention. The GEO report series and associated products, as well as the World Resources Report, all provide valuable channels for this. Second, the medium-to-long time frame within which most environmental change processes operate and the irregular availability of new data and assessments, render it impractical to carry out a full global environmental assessment more frequently than every 10 years. At the same time, it is valuable to have an established framework within which key issues of a more specific nature will be assessed and reported. Third, while recognizing that the preparation of GEO products has placed considerable strain on the resources available both within UNEP and in collaborating institutions, steps are being taken to ensure that UNEP and its GEO partners are better able to deal with the associated demands.

13. It is anticipated that, from 2002, efficiencies and economies of scale will result from improved communications technology and enhanced access through UNEPnet and other systems to the high-quality data essential for underpinning environmental assessment. Major efforts will also go into further strengthening of the GEO process through a longer-term, comprehensive training and capacity development programme covering all aspects of integrated environmental assessment. As in the past, the future success of the GEO project will depend upon the continued support of Governments and close collaboration with partner institutes.

14. UNEP, in compliance with paragraph 4 of decision 20/1, is following the full participatory assessment process to prepare a third GEO report (GEO-3) for publication in 2002, prior to the next Earth Summit, to be held later that year. Partner networks and data compilation have both been strengthened for GEO-3, liaison

with other global report producers has been increased and coordination and production activities have been further decentralized to enhance regional participation. Building on GEO-1 and GEO-2000, GEO-3 will provide a more integrated assessment of the key environmental issues which we currently face at global, regional and subregional levels, as well as a scenario-based outlook for the next 30 years. In presenting options for action, UNEP aims to provide a constructive information basis and global context for negotiations and decision-making. In addition, a diversified range of associated products will target a range of major user groups.

15. In accordance with paragraph 5 of the decision, UNEP actively collaborated with UNDP, the World Bank and WRI in the preparation of the report World Resources 2000-2001; People and Ecosystems: The Fraying Web of Life. A summary of the report was published in April 2000 and the full report was launched in September 2000. UNEP is currently preparing an expert report on policy issues and responses to changes in the five ecosystem types (coastal, forest, freshwater, grassland and agro-ecosystems) addressed in World Resources 2000-2001.

16. With reference to paragraph 6 of the decision, UNEP is actively implementing a process to bring together major actors in data compilation and global report production, with a view to promoting collaboration in the development and use of a common data and knowledge system. The process will build on the long-standing cooperation with WRI as a partner in the UNEP/UNDP/World Bank/WRI-sponsored world resources reports, which incorporate a comprehensive compilation of data relevant to the global reporting process. UNEP will seek to expand this cooperation to standardize approaches to data compilation as part of the millennium ecosystem assessment project scheduled to commence in 2001.

17. UNEP is working with public and private-sector partners to develop and provide worldwide access to data held by UNEP and the wide range of institutions and agencies involved in assessment and reporting, through a global environmental information system (UNEPnet). Development of the system will be implemented in three phases: the first, development of the framework of the system, is currently being implemented. Phase two, commencing in 2001, will involve the main UNEP collaborators in global reporting, particularly WRI, UNDP, the World Bank and the GEO collaborating centres network. A third phase will extend the system to link with United Nations agencies and other important partners.

B. Restructuring of INFOTERRA

18. In its decision 20/5, the Governing Council requested the Executive Director to develop, in close cooperation with relevant partners, a concrete plan for establishing a restructured INFOTERRA. The objective of the decision was to ensure that practical mechanisms are put in place to facilitate better access to environmental information at the national level.

19. The following are the key elements of the INFOTERRA restructuring plan:

(a) Change in image for the UNEP global environmental information exchange network, INFOTERRA, by renaming it "UNEP-Infoterra", so as to reflect the joint stakeholdership in the activities of the network, shared between UNEP and national-level partners, primarily key suppliers of environmental information and major user groups;

(b) Formal recognition of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (popularly known as the Århus Convention) as the driving force and legislative framework for the dissemination of data and information by UNEP and national partners worldwide;

(c) Establishment in each country of an informal network, or consortium, of primary data and information producers to deliver an integrated information service on environmental matters to users;

(d) Migration of the old system of INFOTERRA national focal points towards the new consortium structure and the realignment of national focal points either to ministries of environment or to environmental protection agencies, as appropriate, in order to coordinate the revitalized information service;

(e) Analysis of the information and communications infrastructure already present or evolving in each network member country. In developed countries, the service will operate mainly through a national portal Web site that acts as a single point of access to environmental information resources. In developing countries, where Internet connectivity is not widespread, the national information service will tend to operate through more conventional information channels such as public access centres, public libraries and institutional networks, but the Internet will also be used as an access channel;

(f) Integration of national portal sites with the UNEP initiative to develop a global environmental portal, UNEPnet, to provide a global environmental information network and service;

(g) Provision of technical guidelines, training and tools to make the information service operational in each country. The need to build capacity in developing countries is recognized as a priority task;

(h) Development of a marketing strategy to promote the new structure and operational activities of UNEP-Infoterra and its linkage with the UNEPnet global initiative;

(i) Development of methodologies to monitor and assess the quality of the information delivered to various user groups and to determine its impact on environmental decision-making;

(j) Development of strategic partnerships with intergovernmental bodies, regional organizations, global non-governmental organizations, academic institutions and private enterprises active in the area of facilitating access to information on environmental matters.

20. In response to the key elements of the plan, the following UNEP-Infoterra network restructuring activities have taken place to date:

(a) A global review of existing UNEP-Infoterra national focal points to determine whether realignment is necessary. Consultations with certain Governments will be initiated to identify solutions to problem areas;

(b) The development of new tools to support the provision of a national information service on environmental matters. A strategic partnership has been developed with the European Environment Agency (EEA) to develop a cataloguing tool to identify environmental information resources in support of the GEO reporting process. A global environmental vocabulary is also being developed in cooperation with EEA, the United States Environmental Protection Agency and the National Research Council of Italy;

(c) A meeting was hosted by the Swaziland Environment Authority in Ezulwini, Swaziland, from 19 to 21 June 2000, to review the restructuring of the UNEP-Infoterra network in the Southern African Development Community (SADC) region;

(d) In accordance with the UNEP policy of support for Africa, priority was given to the reform of UNEP-Infoterra in a number of African countries on a pilot basis. National workshops on the reform of UNEP-Infoterra were held in Morocco, Nigeria, the Sudan and Swaziland. Informal consultations were held in a number of SADC countries, both before and after the Swaziland regional meeting;

(e) In Europe, reform of UNEP-Infoterra was discussed at the second meeting of the EEA European Environment Information and Observation Network (EIONET) focal points in Copenhagen on 24 May 2000. It was accepted by the EIONET group that the new UNEP-Infoterra structure was broader in that there were important environmental issues not being covered by the EIONET national reference centres. It was agreed that harmonization of UNEP-Infoterra and EEA-EIONET networks should be pursued;

(f) UNEP, in partnership with the Regional Environment Centre in Budapest and the non-governmental coalition Eco-Forum, presented a working paper on the use of electronic tools to enhance access to environmental information during the second meeting of signatories to the Århus Convention, in Dubrovnik-Cavtat, from 3 to 5 July 2000. The participants agreed to establish a task force on the issue, whose work will complement the reform of UNEP-Infoterra in countries that have signed the Århus Convention;

(g) Recognizing the importance of mobilizing key non-governmental organizations to work in partnership with UNEP to promote access to information, UNEP-Infoterra is collaborating with the Regional Environment Centre in Budapest to address specific articles of the Århus Convention, such as that on consumer access to product information, which is currently a burning issue in Europe.

21. Further to the above decision, UNEP in cooperation with the Department of the Environment and Local Government of Ireland organized the INFOTERRA 2000 Global Conference on Access to Environmental Information in Dublin Castle, from 11 to 14 September 2000. The Conference launched the revitalized UNEP-Infoterra network comprising national consortia of key environmental information suppliers and major user groups.

22. The Conference adopted the Dublin Declaration on Access to Environmental Information, which called on Governments to establish the new consortium structure in each country and work towards the provision of an integrated information service on environmental matters. At a practical level, the development of national portal Web sites as gateways to environmental information was identified as a key task to be undertaken to support the proposed global environmental portal UNEPnet. The recommendations of the Dublin Conference may be found in the meeting report. The following is a summary of the main recommendations adopted by the meeting:

(a) UNEP should collaborate with the Århus Convention secretariat in the United Nations Economic Commission for Europe to help give a global dimension to the norms enshrined in the Convention;

(b) Mechanisms should be established to facilitate access to information on transboundary environmental issues;

(c) Regional and subregional meetings should be organized by UNEP to promote the establishment of the new consortium structure and that a marketing strategy be developed on the new UNEP-Infoterra;

(d) UNEP-Infoterra consortia should be established at the national level and include the focal points for environmental conventions and other leading information suppliers;

(e) UNEP-Infoterra consortia should identify key information and data resources for the UNEPnet global portal, and conduct national assessments on the supply of, and demand for, environmental information;

(f) UNEP should provide guidelines for capacity-building with regard to the provision of information services at the national level and promote partnerships between developed and developing countries in this area.

23. As a side event to the global conference, an informal start-up meeting of the task force on the use of electronic tools and media to further the implementation of the Århus Convention was held in Trinity College, Dublin, on 15 September 2000. This task force is being led by the Government of Austria with financial support from the Government of Norway. The meeting brought together over 50 European representatives, and each article of the Convention was examined to identify opportunities for the use of electronic tools and media. The first official meeting of the task force will be held in Norway in March 2001.

C. Environmental situation in the occupied Palestinian and other Arab territories

24. UNEP continues to be part of the multilateral working groups on water resources and the environment set up under the Middle East peace process, even though the working groups have not met since the twentieth session of the Governing Council.

25. UNEP, jointly with Israel, Jordan, the Palestinian Authority and the UNDP Programme of Assistance to the Palestinian People, is implementing a subregional project on the development of a Middle East subregional database on desertification. This activity falls under the initiative for collaboration, under the Multilateral Working Group on the Environment, in controlling natural resource degradation (desertification) of arid lands in the Middle East. The project, funded by the Government of Norway, will be completed in January 2001.

26. UNEP participated in the sixth inter-agency meeting organized by the Office of the United Nations Special Coordinator in the Occupied Territories, held in Gaza on 14 and 15 June 2000. The meeting aimed to coordinate United Nations assistance to the Palestinian people.

27. With regard to the update of the report on the state of the environment, UNEP has started to prepare, through the Centre for Environmental Studies and Resources Management based in Oslo, its report on the environmental situation in the occupied Palestinian and other Arab territories. The preparatory work covers the West Bank and Gaza Strip, as well as the previously occupied southern part of Lebanon. Work on the Golan Heights was not initiated, as the parties concerned feel that an assessment of the environmental situation in that area is not appropriate in view of high-level negotiations currently under way.

28. Information sources consulted to date for the preparation of the report include documents from Government institutions, United Nations organizations, the World Bank and research centres. They are supplemented by findings from field studies, and dialogue with authorities dealing with water and the environment in the region.

29. The current circumstances in the region have prevented relevant materials from being collected in some areas. Consequently, completion of the report has become impracticable at the current stage. It is hoped that the report will be completed in time for submission to the Governing Council at its twenty-second session.

II. DEVELOPMENT AND IMPLEMENTATION OF ENVIRONMENTAL POLICY INSTRUMENTS

A. Land degradation: Implementation of the United Nations Convention to Combat Desertification in those Countries Experiencing Drought and/or Desertification, particularly in Africa

30. The functional integration of the work of UNEP and the new organizational structure of the organization represents a departure from traditional practice. Rather than directly address major environmental issues such as land degradation, freshwater, biological diversity or forests in a sectoral manner, it analyses policy sources of environmental problems. The implications of this for UNEP are clear. There is a need to forge integrated approaches that recognize and consolidate ecological, social and economic conditions and goals. There is also a stronger recognition of the need to take into account the economic imperatives, social dimensions and environmental aspects of issues such as desertification. The functional integration of the UNEP agenda sets out policy goals that cut across administrative boundaries.

31. Consequently, UNEP has embarked on a review and analysis of sustainable land use, including soil management. In the unfolding review process, particular attention is being accorded to the connections and linkages between and among the respective UNEP policy elements relating to land, water, climate,

biological diversity, industry, chemicals and technology, as well as to legal, economic and other instruments. Consultations with Governments, cooperation partners and stakeholders are being undertaken within the context of the above-mentioned policy review and analysis.

32. In pursuance of Council decision 20/10, UNEP has continued to act as task manager for chapter 12 of Agenda 21, reporting to the Commission on Sustainable Development at its eighth session in an addendum to the report submitted by the Food and Agriculture Organization of the United Nations (FAO) on chapter 10. In accordance with that same decision, UNEP has continued to support the implementation of the Convention to Combat Desertification, and to manage projects funded by the Global Environment Facility (GEF) and other sources for carrying out activities related to land degradation. A great number of activities were carried out, most of them jointly with other agencies and organizations. A full report may be found in document UNEP/GC.21/INF/10. The activities included:

(a) At the global level, a UNEP-led consortium implemented phase one (global identification of parties) of the survey and evaluation of networks, institutions, agencies and bodies relevant to implementation of the Convention. The consortium also submitted a proposal to implement phase two (detailed survey and evaluation of Convention-relevant parties in southern Africa and maintenance and further development of the Web-based database created in phase one);

(b) At the regional and subregional levels, UNEP continued to provide support to countries and their regional and subregional organizations in the implementation of the Convention. It also continued to assist with the development and initiation of the Convention's regional coordination units and mechanisms in Africa, Asia and Latin America and of its subregional action programmes (SRAPs). In West Asia, UNEP contributed to the establishment of a SRAP coordination unit and is currently serving as the interim regional coordinator of the West Asian SRAP, and to the development of a Web-based Middle East database on desertification. Development of SRAPs for the southern European and Asian parts of the Russian Federation were also supported. UNEP supported work by African country parties to prepare their reports to the Conference of the Parties to the Convention, through the framework of the African Ministerial Conference on Environment (AMCEN); while in West Asia the UNEP regional office assisted Kuwait, Palestine and the United Arab Emirates to do the same. In collaboration with the UNDP Office to Combat Desertification and Drought and the Global Mechanism of the Convention to Combat Desertification, UNEP helped promote awareness of fund-raising strategies for the implementation of the Convention in the IGAD (Intergovernmental Authority on Development) and SADC subregions of Africa;

(c) At the national level, UNEP supported the implementation of the Convention in member countries through the formulation of national action programmes (in Armenia and Uzbekistan) and the development and implementation of projects.

33. UNEP continued to disseminate information on desertification control on a global scale through the Desertification Control Bulletin (issues 34, 35 and 36 were produced in 1999-2000). As far as the Convention secretariat is aware, there are no plans to continue this activity. UNEP also supported a number of national awareness-raising activities, including the publication of a newspaper on desertification in Kalmykia, Russian Federation; the preparation and dissemination of films, books, booklets, posters and brochures for schoolchildren; and the organization of activities to mark the World Day to Combat Desertification and Drought in 1999 and 2000. Furthermore, with a view to raising awareness of emerging success stories and best practices in desertification control, UNEP presented its "Saving the Drylands" awards to seven community-level projects at the third meeting of the Conference of the Parties to the Convention to Combat Desertification, held in Recife, Brazil, in 1999.

34. Working in collaboration with the Institute of Geography in Moscow, Moscow State University and other national institutions, UNEP has undertaken a project on the assessment and mapping of desertification and land degradation in Armenia and the Russian Federation. A technical report on the assessment findings was produced for both countries, presenting indicators of desertification and land degradation and desertification maps on a scale of 1:2.5 million.

35. In cooperation with Governments and national research institutions, UNEP organized and conducted three training courses in the Russian Federation for the technical staff of the constituent countries of the Commonwealth of Independent States, on the issues of anthropogenic degradation of landscapes, rangeland management and the reclamation of shifting sands. Jointly with Moscow State University, UNEP organized an international conference on desertification and soil degradation in Moscow in November 1999. It also provided technical support to the Government of the United Arab Emirates for the organization of an international conference on desertification in February 2000.

36. In 1999, UNEP joined the Facilitation Committee of the Global Mechanism of the Convention.

37. In collaboration with other international organizations and agencies and national bodies, and also with the Global Mechanism of the Convention, UNEP continued to develop projects on land degradation for GEF funding. GEF funding for land-related projects already being implemented or still under preparation during 1999-2000 totals some \$41 million. In addition, \$1,101,000 of external funds (including \$250,000 from the Government of Norway, \$414,000 from the Convention to Combat Desertification and \$437,000 from the Russian Fund) were received for the conduct of the above activities and projects.

B. Chemicals

1. Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

38. In pursuance of the resolution on interim arrangements adopted by the Conference of Plenipotentiaries which adopted the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Intergovernmental Negotiating Committee continues to meet in order to oversee the operation of the interim prior informed consent (PIC) procedure and to prepare for the meetings of the Conference of the Parties.

39. The sixth session of the Intergovernmental Negotiating Committee was held in Rome from 12 to 16 July 1999. The Committee agreed to include two new chemicals - binapacryl and toxaphene - in the interim PIC procedure, and established an interim Chemical Review Committee. The first session of the interim Chemical Review Committee was held in Geneva from 21 to 25 February 2000 and commenced its examination of four chemicals identified for inclusion in the PIC procedure and referred to it by the Intergovernmental Negotiating Committee. It recommended two chemicals to the Committee and addressed a number of other issues related to the implementation of the interim PIC procedure. The seventh session of the Intergovernmental Negotiating Committee was held in Geneva from 30 October to 3 November 2000. The Committee agreed to include two new chemicals - ethylene oxide and ethylene dichloride - in the interim PIC procedure, bringing the total number of chemicals to 31. It confirmed the nominations made by Governments of experts for the interim Chemical Review Committee, addressed a number of recommendations made by the interim Chemicals Review Committee and undertook work to prepare for future meetings of the Conference of the Parties.

40. The secretariat has supported countries' efforts to implement the Convention by holding two subregional workshops, in Cartagena (October 2000) and Nairobi (June 2000).

41. The interim secretariat, provided jointly by UNEP and FAO, has performed all services required of it by the Parties in order to implement the Rotterdam Convention in accordance with the Final Act of the Conference of Plenipotentiaries.

42. Over the period 1 January 1999 - 30 June 2000 Governments have provided a total of \$1,159,142 in support of the interim arrangements.

2. International action to protect health and the environment through measures which will reduce and/or eliminate emissions and discharges of persistent organic pollutants, including the development of an international legally binding instrument

43. In response to the Governing Council's invitation in decision 20/24, the Intergovernmental Negotiating Committee for an International Legally Binding Instrument for Implementing International Action on Certain Persistent Organic Pollutants (POPs) held its third session in Geneva from 6 to 11 September 1999, its fourth session in Bonn from 20 to 25 March 2000, and its fifth and final negotiating session in Johannesburg from 4 to 10 December 2000. The Convention will be adopted and opened for signature during the Conference of Plenipotentiaries to be held in Stockholm on 22 and 23 May 2001. To finance these negotiations in accordance with paragraph 4 of the decision, Governments and non-governmental organizations have, to date, contributed or pledged a total of \$3,821,900 through the "POPs Club" funding initiative.

44. The secretariat also continued to implement its programme of immediate actions in this field. During 1999 and 2000, 27 regional and subregional POPs-related workshops were held, 18 POPs-related publications were issued and widely distributed and 25 country-based projects to address POPs were directly supported. Governments have contributed or pledged over \$4,500,000 to support these immediate actions.

C. Global Programme of Action for the Protection of the Marine Environment from Land-based Activities

45. In accordance with decision 20/19 B, the establishment of the Coordination Office in The Hague, the Netherlands, was accomplished in August 1999. The Office has been fully staffed (with a total of six Professional officers) and is now operational. UNEP acknowledges with gratitude the continued support provided by the Government of the Netherlands to the operation of the Office.

46. Addressing sewage as a priority, UNEP developed a strategic action plan on municipal waste water, in close partnership with the World Health Organization (WHO), the United Nations Centre for Human Settlements (Habitat) and the Water Supply and Sanitation Collaborative Council (WSSCC). The plan builds upon and further develops the relevant sections on sewage in the Global Programme of Action. Noteworthy outputs by UNEP in this area include recommendations for decision-making on municipal waste water and a set of practical guidelines for municipal waste water authorities containing key principles and recommended practices and procedures.

47. With regard to the feasibility of convening a global conference on sewage, after consultation with partners, it was considered more appropriate to conduct a global consultative process comprising three parts: first, a high-level segment, seeking the endorsement of recommended practices and procedures, to be held in conjunction with the first intergovernmental review meeting on implementation of the Global Programme of Action (planned for November 2001); second, various sessions for experts through participation in relevant global and regional expert conferences; and, third, a set of regional meetings, involving a wide range of stakeholders. Four of these meetings are being organized in the framework of UNEP's regional seas programme and aim to bring together representatives of Governments, local authorities, the private sector, international financial institutions, potential donors and other major groups. This approach was endorsed at an expert group meeting held to prepare for the first intergovernmental review meeting on the implementation of the Global Programme of Action (The Hague, 26-28 April 2000). The experts concluded that there was no need for a global conference on sewage, but rather recommended that sewage, as one of the most important components of the Global Programme of Action, should be assigned a prominent place in the intergovernmental review meeting. The financial support of the Governments of Belgium, the Netherlands, Norway and the United States of America for these meetings is gratefully acknowledged.

48. The experts stipulated that the overriding objectives of the intergovernmental review are to mainstream the programme of action and to promote its implementation. They agreed to focus the intergovernmental review process and meeting on the following five thematic areas:

- (a) National and regional programmes of action, involving Governments and regional organizations;
- (b) Voluntary agreements involving the private and public sectors;
- (c) Capacity-building;
- (d) Financing;
- (e) Monitoring progress and sharing experience.

49. With regard to the preparatory process for the intergovernmental review meeting, the experts agreed that this process should be based on, and aimed at, the active involvement of Governments, regional organizations, international organizations, the private sector, international financial institutions, non-governmental organizations, local communities and other major groups. Regional seas bodies and other regional mechanisms were invited to play a major role and UNEP, as the secretariat of the Global Programme of Action, was called upon to facilitate the process. Where regional seas programmes do not exist or are not functioning adequately, the experts called upon the Executive Director to assist Governments in those regions to participate in the preparatory process for the intergovernmental review meeting.

50. In response to a request to improve the functioning of the steering committee of the Global Programme of Action, agreement has been reached on the roles and responsibilities of the Sub-Committee on Oceans and Coastal Areas and the Sub-Committee on Water Resources of the Advisory Committee on Coordination (ACC) in facilitating inter-agency cooperation in the implementation of the programme of action. The sub-committees will provide a platform for enhanced inter-agency coordination and cooperation in matters related to implementation of the programme of action, by, first, facilitating the inputs of the individual partner agencies in implementation of the Global Programme of Action; second, commenting and providing advice on the status of implementation of the programme of action and on its future development plans; third, reviewing, as appropriate, the roles and responsibilities of individual agencies in the implementation of the programme of action; and, fourth, providing a forum for promoting the goals of the programme of action.

51. Given the nature of the ACC sub-committees, they will not function as the steering committee for the Global Programme of Action. Instead, they will provide a mechanism to facilitate and promote contributions by agencies to the implementation of the Global Programme of Action.

52. In pursuance of Council decisions 20/19 A and B, efforts were directed towards developing a focused programme of work to culminate in the intergovernmental review meeting in November 2001. In keeping with the approach outlined in the UNEP water strategy and policy, the three main areas of activity of the Coordination Office are:

- (a) Assessment and analysis for action;
- (b) Mobilizing action at the national, regional and global levels;
- (c) Evaluating progress and further development of the Global Programme of Action.

53. Progress has been achieved in the development and operation of the clearing-house mechanism of the Global Programme of Action. The "Train-sea-coast" training programme module of the Global Programme of Action, a training network on oceans and coastal issues, has been developed in cooperation with the United Nations Division for Ocean Affairs and the Law of the Sea, focusing on sewage management.

54. Ten regional assessments on land-based activities have been published. A set of analytical documents prepared in consultation with the private sector were finalized as an input to the intergovernmental review meeting on the Global Programme of Action. In the context of the regional workshops and through a GEF-funded medium-sized project proposal (which is awaiting GEF approval), UNEP will provide support to 11 developing countries in preparing their national programmes of action. In addition, through an additional GEF-funded medium-sized project proposal (also awaiting GEF approval), UNEP, in partnership with the World Conservation Union (IUCN), will conduct an analysis of experience gained with regional activities, programmes and processes in addressing land-based activities and will disseminate lessons learned at the intergovernmental review meeting.

55. In cooperation with regional organizations, UNEP has also provided support for the preparation of four regional programmes of action on land-based activities, for the Red Sea and Gulf of Aden; the south Asian seas; the south Pacific; and east Asian seas. These programmes of action have been endorsed by government-designated experts.

56. In the framework of preparations for the intergovernmental review meeting, several sectors of industry (tourism, insurance, ports and harbours, and the water industry) have been requested to submit reports about their possible involvement in the implementation of the Global Programme of Action and the need to develop codes of conduct or other forms of voluntary action. Close partnerships have been developed with the tourism sector.

57. Further information on this subject may be found in document UNEP/GC.21/INF/9.

D. Coral reefs

58. There is alarming and extensive evidence that coral reef ecosystems continue to be damaged or severely degraded as the result of both direct human activities and global climate change, as evidenced by the increased global incidence of episodes of coral bleaching since the twentieth session of the Governing Council.

59. In its decision 18/33, the Council welcomed the International Coral Reef Initiative (ICRI), expressed support for the establishment of a global coral reef monitoring network and encouraged the regional programmes of UNEP to incorporate recommendations of the coral reef initiative workshop, as appropriate, into relevant UNEP activities. In its decision 19/15, the Council urged the Executive Director to continue to play an active and leading role in the development, implementation and coordination of regional activities under ICRI.

60. In its decision 20/21, the Council called on the Executive Director to place the renewed call to action issued by the 1998 international symposium on tropical marine ecosystems management before it for consideration at its twenty-first session, and endorsed enhanced cooperation on coral reefs within the United Nations system. The secretariat has circulated the call to action to Governments. The Governing Council requested the Executive Director to carry out an assessment of UNEP experience to date in the implementation of the ICRI programme and to consider how the role of UNEP in relation to coral reefs can be strengthened.

61. UNEP has intensified its efforts to mount coral-reef-related activities. To that end, the Programme is collaborating with numerous partners, including the Global Coral Reef Monitoring Network (GCRMN), the International Center for Living Aquatic Resources Management, the United Nations Foundation, FAO, WRI, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Intergovernmental Oceanographic Commission and the World Bank. UNEP has continued to participate in and cooperate with GCRMN in implementing its monitoring activities in support of the conservation and sustainable use of coral reef ecosystems, in particular in the light of recent scientific findings which indicate that 60 per cent of

the world's coral reefs could be lost by 2030. The secretariat submitted a proposal to the United Nations Foundation for the funding of the 2001-2005 action phase of the International Coral Reef Action Network project. Recently, a new UNEP Coral Reef Unit was established within the Division of Environmental Conventions, in collaboration with the Division of Early Warning and Assessment.

62. Through the coordinating role of UNEP progress has been made towards the implementation of the ICRI framework for action and the International Coral Reef Action Network. A new UNEP World Conservation Monitoring Centre (WCMC) world atlas on coral reefs will be published in February 2001, providing an opportunity to publicize common problems affecting coral reef habitats and to mobilize a global effort by UNEP, other international organizations, national bodies and non-governmental organizations.

63. There is a need to strengthen the role of the regional seas conventions and action plans as implementing and coordinating mechanisms for the action phase of the International Coral Reef Action Network. It is important that each of the regional seas programmes should prepare regional or subregional programmes in the area of the conservation and sustainable use of coral reefs.

64. There is also a need to step up the existing collaboration between the ongoing coral-reef-related activities of UNEP and the global conventions, especially the Framework Convention on Climate Change, CITES and the Convention on Biological Diversity. Efforts must be made to raise funds to support coral-reef-related activities and to explore new potential funding mechanisms in designing relevant coral reef projects.

E. Biosafety

65. The adoption of the Cartagena Protocol on Biosafety offers an exceptional opportunity for the promotion of global partnerships between all stakeholders concerned for the effective implementation of the commitments of the international community. The safe and equitable application of modern biotechnology across the globe will not become a reality without effective international cooperation between those providing biological resources and those using them through biotechnological applications. The promotion of effective international cooperation between developed and developing countries, as well as between the private sector and civil society, is crucial in achieving the objectives of the Protocol.

66. The building of human and institutional capacity in developing countries and in countries with economies in transition is an important element of such international collaboration. It will be necessary to ensure complementarity and coordination with the capacity-building efforts of Governments, intergovernmental and non-governmental organizations, international bilateral and multilateral agencies, the other GEF implementing agencies (UNDP and the World Bank), FAO, WHO, the United Nations Industrial Development Organization (UNIDO), the Organisation for Economic Cooperation and Development (OECD), the International Centre for Genetic Engineering and Biotechnology (ICGEB), the Inter-agency Network for Safety in Biotechnology (IANB), the African Centre for Technology Studies (ACTS), the International Service for National Agricultural Research (ISNAR), the Global Biodiversity Institute (GBDI) and the IUCN Environmental Law Centre.

67. As part of the follow-up to the adoption of the Protocol, a ministerial round table on capacity-building in developing countries to facilitate the implementation of the Protocol, held in Nairobi on 23 May 2000 during the fifth meeting of the Conference of the Parties to the Convention on Biological Diversity, reiterated the need for capacity-building at the national level, to facilitate the safe use of modern biotechnology, in particular the safe transfer of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity between countries which may have very different climatic, social and economic conditions. The ministers emphasized the importance of the financial mechanism and financial resources in the partnership that the Protocol represents and welcomed the commitment of GEF to support a second phase of the UNEP/GEF

pilot biosafety enabling activity project. The need for capacity-building was also emphasized at a GEF workshop on the UNEP/GEF pilot biosafety enabling activity, held on 24 May 2000 on the sidelines of the fifth meeting of the Conference, with the participation of more than 150 representatives.

68. Two decisions on biosafety were adopted by the Conference at its fifth meeting. Decision V/1, on the work plan of the Intergovernmental Committee for the Cartagena Protocol on Biosafety, and decision V/13, on further guidance to the financial mechanism, welcomed the decision taken by the GEF Council at its fifteenth meeting with regard to supporting activities which would assist countries to prepare for the entry into force of the Protocol. In the light of these decisions, UNEP held a series of bilateral discussions with the GEF secretariat and also provided inputs for the formulation of a GEF initial strategy paper on biosafety. UNEP also participated in a series of inter-agency consultative meetings involving GEF, UNDP and the World Bank, to consider the way forward following the successful completion of the UNEP/GEF pilot biosafety enabling activity project.

69. The first meeting of the Intergovernmental Committee for the Cartagena Protocol on Biosafety, held in Montpellier, France, from 11 to 15 December 2000, adopted the Montpellier Declaration on the Cartagena Protocol on Biosafety. In the Declaration, the meeting reiterated that for many Parties, especially developing countries, in particular the least developed and small island developing States among them, capacity-building was the foremost priority for the moment, acknowledged that action to address those needs must be demand-driven, identified the framework of those needs and highlighted various means of meeting those needs, including the UNEP/GEF biosafety initiatives. The meeting also acknowledged that signature by a significant number of countries and ratification by two countries demonstrated a commitment to implementing the Protocol as soon as possible, and looked forward to the maximum possible number of ratifications to make possible the swift and effective entry into force of the Protocol.

70. UNEP, as one of the three implementing agencies of GEF, has proposed for GEF funding an expanded programme on biosafety that intends to support countries' efforts in instituting the necessary administrative and legal frameworks at the national level. The overall objective of the project is to prepare countries for the entry into force of the Protocol and, in doing so, it will coincidentally contribute to assisting countries eligible for GEF assistance to implement the provisions of article 8 (g) of the Convention. The proposed programme intends therefore to provide support to the following main activities to prepare countries for the entry into force of the Biosafety Protocol:

- (a) Support to an additional 100 countries for development of their national biosafety frameworks;
- (b) Support for regional and subregional capacity-building initiatives, including workshops involving a wide spectrum of relevant stakeholders for awareness-raising measures relating to various issues of biosafety in the context of the implementation of the provisions of the Protocol on Biosafety.

71. This will be achieved through:

- (a) Strengthening national capacity, so as to implement biosafety procedures and maximize the potential for the safe use of biotechnology;
- (b) Applying biosafety procedures to enhance environmental management;
- (c) Applying biosafety guidelines under the Convention and the Protocol and in response to decisions of the Intergovernmental Committee for the Cartagena Protocol on Biosafety, taking into account the UNEP International Technical Guidelines for Safety in Biotechnology;
- (d) Harmonizing regional and international legal instruments to simplify the process of applying and conforming to biosafety regulations;
- (e) Raising public awareness of the issues involved in the release of living modified organisms and their products, to promote informed debate and to ensure that where any use of biotechnology is permitted, it is effected in an open and transparent way;

(f) Providing all stakeholders with an opportunity to be involved in the design and implementation of a national framework for biosafety;

(g) Carrying out an assessment of technological capacity, its effect on implementation of national biosafety frameworks and the means of improving such capacity;

(h) Increasing the overall safety of biotechnology, so that the citizens concerned may reap the benefits with minimum adverse effects on health and environment where it is decided to allow the use to proceed.

72. Under a separate programme, it is intended to submit to the GEF Council in May 2001 a project for GEF funding in support of up to 25 countries (including the original 18 pilot-phase countries), on a case-by-case basis, for national capacity-building activities geared towards implementation of their national biosafety frameworks, in the context of the provisions of the Biosafety Protocol and the Convention, taking also into account the UNEP International Technical Guidelines for Safety in Biotechnology.

73. Further information on this subject may be found in document UNEP/GC.21/INF/18.

III. SUPPORT TO AFRICA

74. In pursuance of Governing Council decision 20/27, UNEP has continued to provide support to African countries for the formulation of environmental policies and policy instruments. This has included support to regional and subregional cooperation frameworks, as well as support to Governments through legal and technical advisory services and technical assistance in various programme areas.

75. Within the framework of AMCEN, UNEP has provided support for the organization of consultations on the various multilateral environmental agreements by African Governments, African regional and subregional organizations and non-governmental organizations operating in the region. These consultations all helped ensure stronger common African positions on issues of concern to the Africa region falling within the ambit of these agreements. The following specific activities were undertaken with UNEP support:

(a) AMCEN Biodiversity Network special consultations on the Biosafety Protocol (Nairobi, 28 and 29 January and 23 and 24 August 1999), in preparation for the Cartagena negotiations;

(b) African Regional Preparatory Conference, to prepare for the third session of the Conference of the Parties to the Convention to Combat Desertification (Nairobi, 27 September-1 October 1999);

(c) Special expert consultations of the AMCEN Committee on Forests and Woodlands (Nairobi, 25-27 January 2000), in preparation for the fourth session of the Intergovernmental Forum on Forests, held in New York from 31 January to 11 February 2000.

76. In addition, UNEP provided support for the organization of the tenth meeting of the AMCEN Bureau (Cairo 16 and 17 January 2000), as well as the eighth session of AMCEN (Abuja, Nigeria, 3-6 April 2000), in support of the firm resolve of African Governments to strengthen these important regional cooperation mechanisms to meet the environmental management challenges of the twenty-first century. The Abuja Declaration on AMCEN was adopted by ministers and senior government officials from 46 African countries. AMCEN also agreed at its eighth session on a new policy and various institutional changes, as well as a medium-term programme, all of which are essential to enable AMCEN to enhance its role significantly and to transform the Conference into an effective instrument for dealing with the continent's environmental concerns.

77. In accordance with the provisions of the Abuja Declaration, UNEP provided support for the organization of the first meeting of the AMCEN Inter-sessional Committee, which was held in Malmö, Sweden, on 31 May 2000, as well as the first meeting of the AMCEN Inter-agency Technical Committee,

held in Nairobi from 12 to 14 July 2000. Both meetings were designed to map out measures for the effective implementation of the declaration and the medium-term programme adopted at the eighth session of AMCEN.

78. In addition, with similar support from UNEP, a special session of AMCEN was held in Dakar, Senegal, from 19 to 21 October 2000, with the objective of discussing key items of concern to Africa on the agenda of the forthcoming meetings of the Conferences of the Parties to the United Nations Framework Convention on Climate Change (13-24 November 2000), the Montreal Protocol (11-14 December 2000) and to the Convention to Combat Desertification (11-22 December 2000), as well as Africa's preparations for the Earth Summit to be held in 2002.

79. In promoting resource mobilization to enhance the implementation of the Convention to Combat Desertification in the IGAD and SADC subregions, UNEP provided support for the organization of a subregional workshop for resource mobilization in Mombasa, Kenya, from 2 to 4 October 2000. The workshop examined opportunities for accessing frameworks and also evaluated the potential for private-sector investment in environmental management of relevance to the Convention's activities. It also assessed opportunities for financial synergies with other multilateral environmental agreements. In its main recommendation, the workshop called on the Convention's national action programme and subregional action programme focal points to develop and coordinate the implementation of a resource mobilization strategy, which should include a plan for integrating and mainstreaming dryland concerns in policy, planning and budgeting processes at all levels.

80. UNEP support has also been provided for the establishment of a pilot sustainable energy advisory facility that will provide a variety of targeted advisory services related to sustainable energy in 10 developing countries. The facility will assist decision makers in overcoming specific problems regarding sustainable energy policies, projects, investments, technologies and financing. African countries represent the priority target group of the facility. With support from the United Nations Foundation, UNEP has also started a programme to help establish small private-sector energy companies in Africa that are based on renewable energy technologies. The Africa Rural Energy Enterprise Development (AREED) initiative brings together various financial institutions and non-governmental organizations - both African and Western - to promote successful approaches to business start-ups. The AREED initiative seeks to create sustainable energy options for the rural poor of Africa by increasing the capacity of the private sector to offer energy services using clean, efficient, and renewable energy technologies.

81. AREED is under way in five countries: Botswana, Ghana, Mali, Senegal and Zambia. Specific projects or joint activities are being developed with 32 enterprises and non-governmental organizations, and discussions for partnership are under way with five local financial institutions. The number and quality of prospective projects has exceeded expectations, with four times as many renewable energy projects currently in near-term development as had originally been targeted. Agreements have also been signed with a number of local non-governmental organizations to assist in enterprise development activities and help promote the project to a wider audience. An agreement on a counterpart contribution was to be signed with the Development Bank of Southern Africa, and links have been forged with World Bank and UNDP programmes. Funding for the effort is provided by the United Nations Foundation.

82. Through its Collaborating Centre on Energy and Environment, UNEP is helping a number of African countries in the areas of information, awareness-raising and methodological development related to the Clean Development Mechanism established under the Kyoto Protocol. The project links international climate change finance and sustainable development, with the aim of addressing, from a host country perspective, various analytical and institutional issues of the mechanism. The project has two components: national pilot studies on the opportunities, problems and requirements associated with the possible use of the Clean Development Mechanism, and analytical studies and underlying methodology development that provide scientific input to the Kyoto Protocol process.

83. National studies have thus far been supported in four African countries: the Gambia, Ghana, Uganda

and Zimbabwe. The best identified opportunities will be translated into Clean Development Mechanism projects in each country, with back-up analysis to determine how the projects could be organized, assessed, marketed and implemented.

84. The pilot sustainable energy advisory facility is providing information and technical support for sustainable energy activities in selected developing countries, including several in Africa. The facility is helping partner organizations make better preparations for the ninth session of the Commission on Sustainable Development. Using funds provided by the Danish International Development Authority, UNEP is offering services that include access to information, expert assistance and support for national or regional training. Technical assistance is being made available for such exercises as: sector and national planning studies; climate change mitigation studies; technology assessment and selection; assessment of renewable and conventional energy projects with reduced environmental impacts; and linkage to relevant institutions for project finance.

85. The project on barriers to renewable energy technologies will propose measures to overcome such barriers. Case studies of renewable energy implementation projects in Egypt, Ghana and Zimbabwe – undertaken by national partner organizations – have been undertaken to determine the reasons for the success or failure of specific projects or technologies. An overall study will analyse possibilities for overcoming the main identified barriers. The findings of the case studies and the results of the overall study are being prepared in a general form for dissemination and use in promoting rural energy technologies.

86. National ozone units in 44 African countries have been networked through two regional networks to facilitate implementation of the Montreal Protocol. These national ozone units met twice in 1999 and twice in 2000 to share their experience and promote regional cooperation for the phase-out of ozone-depleting substances. They are also supported by the Multilateral Fund of the Protocol in implementing institutional strengthening and investment projects for the phase-out.

87. Within the framework of cooperation between UNEP, the International Geosphere-Biosphere Programme (IGBP) programme on land-ocean interactions in the coastal zone and the secretariat of the IGBP Pan-African System for Analysis, Research and Training (START), UNEP provided support for the organization of a workshop in Nairobi from 25 to 27 July 2000. The workshop was part of efforts by UNEP to promote the sustainable management and human health aspects of rivers and coastal seas in Africa.

88. Similarly, within the framework of cooperation between UNEP, the United Nations Industrial Development Organization (UNIDO), the Carl Duisberg Gesellschaft (Germany), the Netherlands Government and the Norwegian Government, UNEP provided support for the organization of the first cleaner production round table for Africa and a workshop on sustainable consumption held in Nairobi from 9 to 11 August 2000. A regional coordination committee comprising representatives from the five subregions in Africa has been formed to pursue the task of establishing the round table as an ongoing mechanism. A cleaner production financing project, supported by the Government of Norway, is being implemented in the United Republic of Tanzania and Zimbabwe. UNEP/UNIDO national cleaner production centres have been established in Ethiopia, Kenya, Morocco, Mozambique, Tunisia, the United Republic of Tanzania and Zimbabwe. UNEP is providing technical support to these centres. Efforts are also under way for the establishment of similar cleaner production centres in other African countries. In the area of consumption, the global research project on consumer trends and the global survey on youth and sustainable consumption behaviour (see below) have involved various African countries (Cameroon, Kenya, Nigeria, Senegal and Uganda).

IV. TECHNOLOGY TRANSFER AND INDUSTRY

A. Technology

89. In pursuance of Governing Council decision 20/19 E, UNEP has continued to promote the development, use and transfer of environmentally sound technologies and practices through a number of activities, as described below.
90. Regional round tables on cleaner production have been held in Africa, Asia and Latin America under UNEP auspices, with the objectives of raising awareness and building capacity in the availability and use of cleaner technologies. The network of national cleaner production centres is growing. Currently there are 19 UNEP/UNIDO national cleaner production centres and over 300 institutions around the world which are active in the field of cleaner production. The sixth international high-level seminar on cleaner production, held under the auspices of UNEP, was hosted by the Government of Canada in Montreal on 16 and 17 October 2000. A plan of action has been launched to monitor implementation of the UNEP International Declaration on Cleaner Production, now signed by 42 national Governments and 50 business, industry and professional associations.
91. UNEP has also developed various activities to promote sustainable consumption. It has been identifying ways to improve global research on consumption patterns by conducting two global surveys, on consumer trends and youth behaviour respectively, carried out in conjunction with UNESCO and Consumers International. Business involvement in the sustainable consumption area has been promoted, focusing on the use of strategies and tools such as life cycle assessment and concepts such as product and services development.
92. UNEP has strengthened existing voluntary initiatives and partnerships with the private sector, in particular those of finance, mining and oil. It has developed or is developing new voluntary initiatives, particularly in the field of tourism, telecommunications, advertising and the automotive industry. The issue of environmentally sound technologies is the focus of keen interest in these initiatives and partnerships.
93. Documentation on technology assessment, including the specific criteria against which to evaluate technology, has been produced to help relevant decision makers to identify the potential impacts of different technology choices. Training activities in this field have also been undertaken.
94. Barriers to investment in cleaner technology, including renewable energies and energy efficiency and ways of overcoming these barriers, are being examined in the context of various projects supported by Denmark, Norway and GEF. The financial community is closely associated with these studies.
95. Presentations of environmentally sound technologies and best practices in specific areas such as water management may be found in various UNEP publications.

B. Trade and economics

96. In pursuance of Governing Council decision 20/29 on policy and advisory services in the key areas of economics, trade and financial services, UNEP has actively contributed to the trade and economics debate by a number of activities and measures, as detailed in the following paragraphs.
97. With a view to raising awareness on the linkages between trade, environment and development, UNEP has continued to publish studies and publications on economics, trade and finance. Over 40 publications are now available in the UNEP trade monograph and environmental economics series. Topics include: environmental impact assessment; environmental and resource valuation; environmental accounting; economic instruments for environmental management; and critical issues in the trade and environment debate. In addition, in collaboration with the International Institute for Sustainable

Development (IISD), UNEP has recently published a basic handbook on environment and trade. Designed for a wide audience, the handbook is intended to increase understanding of challenges and opportunities faced by the international community at the trade-environment policy interface.

98. With a view to developing policy tools to enable decision makers, at the national and international levels to design and implement mutually supportive trade, environment and development policies, UNEP has continued to develop and assist countries in the use and application of assessment and incentive tools, including: environmental and integrated assessment; natural and environmental resource valuation; natural resource accounting; and economic instruments. UNEP has also initiated and conducted several policy research projects to examine critical policy measures with significant environmental implications, such as subsidies, intellectual property rights and trade restrictions based on the precautionary principle.

99. In order to show the way to practical and cost-effective approaches to comprehensive – i.e., environmental, social and economic – reviews of trade-related policies, UNEP has prepared a reference manual on the integrated assessment of trade-related policies. In the light of field trials and requests from Governments, UNEP has fully revised and updated its training resource manual on environmental impact assessment, enabling trainers to develop tailor-made courses for different target groups. The revised manual has been supplemented by a compendium of case studies reflecting country experience.

100. In collaboration with the United Nations Statistics Division, UNEP has prepared an operational manual on integrated environmental and economic accounting, which provides a user-friendly guide for integrated environmental and economic accounting at the national level.

101. UNEP has also prepared studies on, first, the role of the precautionary approach in international and national environmental law-making, and its implications for issues related to trade and environment; second, the design of intellectual property regimes to benefit small-scale innovators and the environment, in the context of the Agreement on Trade-related Aspects of Intellectual Property Rights concluded under the World Trade Organization (WTO); and, third, perverse or trade-distorting fisheries subsidies.

102. With a view to building capacity to enhance countries' abilities to develop mutually supportive trade and environment policies, UNEP is actively supporting a participatory, "learning by doing" approach to addressing their economic, environmental and social needs in the light of national development priorities and social and economic circumstances. Accordingly, UNEP has worked closely with Bangladesh, Chile, India, the Philippines, Romania and Uganda on comprehensive country projects to identify the impacts of trade and trade liberalization on these countries' natural and environmental resources and to develop policies, including economic instruments, for the sustainable management of these resources. UNEP country projects are entirely country-driven – conceived, designed and conducted by national teams of practitioners.

103. Country projects involve multi-stakeholder participation to identify the dynamics involved in environmental degradation, and to develop widely acceptable national response strategies. The implementation of policy recommendations emerging from these projects is already under way in some of these countries.

104. In mid-2000, responding to country demand, UNEP launched a new round of six country projects on trade liberalization and environment - in Argentina, China, Ecuador, Nigeria, Senegal and the United Republic of Tanzania - and three country projects on the design and implementation of policy packages, including economic instruments - in Chile, Kenya and the Philippines.

105. To reinforce its work in this area, UNEP and the United Nations Conference on Trade and Development (UNCTAD) launched a capacity-building task force on trade, environment and development in April 2000. The task force is designed to strengthen the capacities of countries, particularly developing countries and countries with economies in transition, in effectively addressing trade-environment-development issues at the national level and participating effectively in related deliberations at the international level. Through extrabudgetary funding, the capacity-building task force will involve beneficiary countries around the world in research, country projects, training, policy dialogue, networking

and information exchange. Most significantly, the task force will engage other institutions, both governmental and non-governmental, at the national, regional and international levels, in partnerships to spread and develop expertise and capacity, and to accelerate cost-effective policy formulation and implementation.

106. UNEP is working to build partnerships and consensus, with a view to identifying areas of shared perception and approach among major stakeholders, so that trade-environment issues can be successfully tackled at the international level. A principal aim of the partnership and consensus-building activities is to strengthen coherence between multilateral environmental agreements and WTO, as well as to clarify the relationship between WTO rules and trade measures in multilateral environmental agreements.

107. UNEP has continued to develop its partnership with intergovernmental and regional organizations, as well as to promote dialogue with and between Governments to enhance their understanding of trade, environment and development linkages. These activities have been developed in close consultation with Governments, to allow them to guide and participate in specific research, capacity-building and consensus-boosting activities. For example, at the regional level, and in conjunction with the Egyptian Environment Agency and the League of Arab States and with the support of UNCTAD and WTO, UNEP organized a regional symposium on trade and environment in Cairo in September 1999, to assist Arab delegations in their preparations for the WTO ministerial conference held in Seattle in November-December 2000. In collaboration with UNCTAD and WTO, UNEP plans to conduct similar region-specific seminars in Africa, Asia and Latin America.

108. In 1997 UNEP signed a memorandum of understanding with UNCTAD which foreshadowed the design and launch of the capacity-building task force. In November 1999 in Seattle, a framework of cooperation between UNEP and WTO was agreed upon. The framework has underpinned the enhanced collaboration that UNEP has enjoyed with WTO since the Seattle ministerial meeting, manifested both in informal meetings and in regional and international gatherings involving the members of the two organizations. This closer cooperation is enhancing both the scope and value of UNEP work on the relationship between multilateral environmental agreements and WTO, on capacity-building and on the integrated assessment of trade policies.

109. At the country level, UNEP regularly consults with Governments in the formulation and implementation of its activities to ensure that countries' concerns and needs are properly met. Such consultations provide an opportunity for Governments to focus on particular environment-trade issues and to define their priorities for research, capacity-building and consensus-boosting activities.

110. At the international level, a series of secretariat-to-secretariat meetings between the multilateral environmental agreements, WTO and UNEP, combined with a high-level panel discussion at the eighth session of the Commission on Sustainable Development in April 2000, and an international meeting at the United Nations Office at Geneva in October, led to the identification of specific steps that these institutions and their members can take to enhance synergies and mutual support between the multilateral environment and trade regimes.

111. UNEP has also been making efforts to promote the development and implementation of sustainable development policies by the financial services sector, in order to mainstream environmental considerations into economic decision-making.

112. UNEP has been working closely with banks and insurance companies since the early 1990s in two initiatives, which now have a membership of over 200 institutions. These partnerships promote environmentally sound practices in the internal and external operations of these institutions, and awareness and understanding of the benefits accrued by these enterprises by integrating environmental considerations into their operational policies. Relevant policies include the investment, lending and liability coverage policies of banks and insurance companies. Through the establishment of working groups, workshops and international conferences, UNEP has been able to promote and facilitate environmentally responsible investment within the sector.

C. Tourism

113. In accordance with Governing Council decision 20/19 C on sustainable tourism, the proposed UNEP principles for the implementation of sustainable tourism were drafted during 1998. In response to the decision of the UNEP Governing Council at its twentieth session in February 1999, a consultation has been undertaken on the draft principles. Actions taken to date include the following:

- (a) Dissemination of the draft principles via the UNEP Internet site;
- (b) Preparation of a questionnaire to gather comments on the draft principles (which has also been made available on the UNEP Internet site);
- (c) Presentation and discussion of the draft principles at various meetings;
- (d) Organization and conduct by UNEP of a coordinating meeting on tourism;
- (e) Conduct of a UNEP/WTO seminar on sustainable tourism and competitiveness in the islands of the Mediterranean, held in Capri, Italy, from 17 to 20 May 2000;
- (f) Holding of a Caribbean Tourism Organization conference on sustainable tourism development for the Caribbean, in Georgetown, Guyana, from 18 to 23 May 2000.

114. UNEP also joined UNESCO and WTO in launching the Tour Operators' Initiative for Sustainable Tourism Development in March 2000. The Initiative aims at providing a neutral platform for dialogue, catalysing the action of committed tour operators and broadening support for sustainable development in the tourism industry. Consultations were organized by the UNEP Division of Technology, Industry and Economics to prepare the content and working modalities for the Initiative. These consultations produced a statement of commitment requiring tour operators to adopt best practices with regard to sustainable development within their own organizations, as well as in establishing relationships with their contractors and suppliers. They further commit themselves to develop a sustainable policy and to report regularly to the Secretary of the Initiative on progress made.

115. The members of the Initiative also undertake common activities focusing on the exchange of good practices, the development of new management tools, and the promotion of capacity-building and outreach. These activities are coordinated by the Initiative secretariat, hosted by the UNEP Division of Technology, Industry and Economics, which also provides technical assistance to the members for the preparation of the policies and generally in implementation of the statement of commitment.

116. The first annual general meeting of the Tour Operators' Initiative was held in London on 12 November 2000. Of the current 20 members, 18 participated and approved a final programme of activities for 2001. To achieve the objectives of sustainable development, technical working groups were also established in the areas of reporting, destination management and communication. It is expected that these working groups will produce guidelines for the entire membership of the Initiative on how to approach these three topics from a sustainable development perspective.

117. One of the highlights of the first year of the Initiative's operation was the preparation and dissemination of an initial series of case studies of good practices which explore some of the solutions adopted by the members for the implementation of sustainable development in the management of the supply chain, in the visited destinations and in raising the awareness of their customers. A dedicated Web site has been created to provide general information on the Initiative and to increase awareness on sustainable tourism.

118. UNEP is also exploring the possibility of conducting a side event or events on the topic at the ninth session of the Commission on Sustainable Development.

V. CONTRIBUTION TO FUTURE SESSIONS OF THE COMMISSION ON SUSTAINABLE DEVELOPMENT

A. Protection of the atmosphere

1. Activities of UNEP in the field of climate

119. The World Climate Programme (WCP) was established in 1979 in response to the recommendations of the first World Climate Conference, convened in Geneva by the World Meteorological Organization (WMO) and UNEP. Since then WCP has been the major international programme for coordinating global climate monitoring and research, studies of climate change and variability, and appropriate response strategies.

120. As early as 1988, the issue of climate change had been recognized as a potentially serious threat both to the natural environment and to social and economic systems. Accordingly, UNEP and WMO established the Intergovernmental Panel on Climate Change (IPCC) to carry out assessments of the science of climate change, its potential socio-economic consequences and response options.

121. In 1990, IPCC published its first assessment report, which was reviewed by the Second World Climate Conference. The Conference made recommendations regarding the restructuring of the four components of WCP in the light of the findings of the first IPCC assessment report. Specifically, it was agreed that the World Climate Impact Studies Programme (the component implemented by the UNEP) should include greater emphasis on adaptation and mitigation studies. In due course, the World Climate Impact Studies Programme was transformed into the World Climate Impact Assessment and Response Strategies Programme (WCIRP).

122. The mandate of WCIRP was:

- (a) To expedite the development of:
 - (i) Our knowledge and awareness of the effects of climate change and variability on natural systems and on human, social and economic activities;
 - (ii) Assessment methodologies and interactive impact models capable of determining the sensitivity of environmental, social and economic systems to climate variability and change;
- (b) To facilitate the application of this knowledge and these methodologies relating to climate change and variability, with a view to developing specific responses for different components of natural and human systems;
- (c) To determine the impacts on larger industrial and other human systems of these responses;
- (d) To determine the characteristics of natural and human systems which render them vulnerable or resilient, as the case may be, to climate change and variability.

123. The Second World Climate Conference, at which the idea of a convention on climate change was launched, also recommended the continuation of the assessment function of IPCC, to support the negotiation of, and to provide input to, such a convention.

124. In response to these recommendations, the Governing Council, in its decision 16/41 on climate change, requested the Executive Director to provide maximum support for the intergovernmental negotiating process through support to the secretariat, contributing to the cost of the negotiating process, and making available information and data collected by the Programme. In the same decision, the Council also urged the Executive Director to intensify cooperation between UNEP and IPCC in the area of climate change impact assessments, and to support the creation of a Global Climate Observing System.

125. In its decision 17/24 C on climate, the Governing Council urged the Executive Director to take action to ensure the preparation of an integrated programme for WCP to be presented to Governments. In its decision 18/20 A on the Climate Agenda, the Governing Council endorsed the proposal that UNEP should be responsible for coordinating international activities relating to studies of climate impact assessments and response strategies to reduce vulnerabilities. The Climate Agenda had been agreed at an intergovernmental meeting as the integrating framework for WCP.

2. Climate agenda

126. In pursuance of the decisions of the first and second World Climate Conferences, and subsequent decisions of the Governing Council, UNEP has faithfully coordinated activities under WCP, initially through its WCIRP component. Over the last two years, a number of specific activities have been carried out, as described in the following paragraphs.

127. UNEP has been concerned with the impacts of El Niño and identification of preparedness measures for future events. A project funded by the United Nations Fund for International Partnerships (UNFIP) and implemented by UNEP with the collaboration of WMO, the United Nations University, the secretariat of the International Strategy for Disaster Reduction (ISDR) and the United States National Center for Atmospheric Research (NCAR) was to be completed in December 2000. The project was notable for excellent collaboration among the core agencies. As a result, a clear understanding has been achieved of how the 1997/1998 El Niño event was handled, and proposals for preparedness measures and better response strategies are being formulated. In some cases, disaster management centres have been put in place, in part as a result of the 1997/1998 event. Completed and planned outputs of the project include a millennium summary report, a book and summary fact sheets from the 16 participating countries. In addition, CD-ROMs have been prepared and the findings of the project are being disseminated over the Internet. A possible curriculum for a university-level climate affairs programme has attracted some interest from a few universities in North America and some developing countries.

128. In addition, UNEP was involved in mitigating the impacts of the 1997/1998 El Niño-induced fires in South-East Asian countries and, since May 1999, has continued to provide assistance to these countries in the following areas:

- (a) Improving the communication function of their early warning system through the use of high-resolution data and geographical information systems;
- (b) Improving communications among key centres in the subregions to help coordinate fire operations;
- (c) Helping with the establishment of an integrated action plan for fire suppression at the local level, for coordination among different actors;
- (d) Assisting in the development of a legal framework for the prevention of transboundary haze.

3. Intergovernmental Panel on Climate Change

129. Since its inception in 1988, IPCC has completed two multi-volume assessment reports on the state of knowledge on human-induced climate change, its causes, impacts and potential response strategies. The 1994 special report contained information on radiative forcing, evaluation of updated emissions scenarios, technical guidelines for assessing climate change impacts and adaptations, and guidelines for national greenhouse gas inventories. In 1995, the second assessment report was published. In 1996 and 1997, IPCC published four technical papers, on the following issues:

- (a) Technologies, policies and measures for mitigating climate change;
- (b) Introduction to simple climate models;
- (c) Stabilization of atmospheric greenhouse gases: physical, biological and socio-economic implications;
- (d) Implications of proposed CO₂ emission limitations.

130. IPCC also submitted the revised 1996 Guidelines for National Greenhouse Gas Inventories, which are used by parties to the Framework Convention on Climate Change in preparing their national communications. In 1997, IPCC published a special report on the regional impacts of climate change.

131. In 1999, the IPCC special report on aviation and the global atmosphere was finalized, while in 2000 three special reports were completed, two of them prepared on request from the parties to the Framework Convention on Climate Change. The reports covered the following three topics:

- (a) Methodological and technological issues in technology transfer;
- (b) Land use, land use change and forestry;
- (c) Emission scenarios.

132. IPCC has also completed work on a report on the issues of good practice guidance and uncertainty management in national greenhouse gas inventories.

133. The main focus of IPCC activities over the last two years has been on the preparation of its third assessment report. This will consist of three working group contributions and a synthesis report. Working group I will assess the scientific aspects of the climate system and climate change. Working group II will assess, from a scientific and technical standpoint, the vulnerability (both sensitivity and adaptability) of environmental systems, social and economic sectors and human health to climate change, with an emphasis on regional, sectoral and cross-sectoral issues. In its assessment the group will also consider both the negative and the positive consequences of climate change for those systems and sectors. Working group III will assess the scientific, technical, environmental, economic and social aspects of the mitigation of climate change. The third assessment report will closely study a number of cross-cutting issues, such as the interrelationship between development, equity and sustainability; uncertainties; costing methodologies; and decision-making frameworks. It will review climate change in the context of sustainable development; consider the regional dimensions of climate change; and identify the critical linkages with the other major global environmental issues. The working groups will consider and approve their respective contributions to the third assessment report at their sessions held between January and March 2001. In its turn, the Panel will consider and adopt the three reports at its seventeenth session, in April 2001.

134. The synthesis report will be based on the three working group contributions and provide responses to 10 scientific, technical, social and economic questions selected by the Panel. These are based on questions asked by the Framework Convention's Subsidiary Body for Scientific and Technological Advice. The synthesis report will be considered and adopted by the Panel at its eighteenth session, in September 2001.

135. A number of workshops and expert meetings have been held in the context of preparations for the third assessment report, in particular on cross-cutting issues. The IPCC task group on scenarios for climate impact assessment facilitates cooperation between the climate modelling and impacts communities. The IPCC Data Distribution Centre has been established under the direction of the task group to make a range of scenario-related data freely and easily available for conducting assessments of climate change impacts. The task group has also prepared guidance material on the use of climate projections in impact assessment.

136. UNEP has seconded a senior programme officer to the IPCC secretariat, is contributing to the IPCC trust fund and, by making its expertise available, has assisted with the preparation of IPCC reports. Its contribution to the trust fund is currently at the level of \$220,000 per biennium.

4. Global Climate Observing System

137. In response to Governing Council decision 16/41 on climate change, the Executive Director has concluded a memorandum of understanding with WMO, the International Council of Scientific Unions and the Intergovernmental Oceanographic Commission of UNESCO on the Global Climate Observing System (GCOS) and has actively participated in the GCOS steering committee and many of its panels, with a view to improving its observation networks. Such networks should enhance the capacity for climate change detection, which would greatly facilitate targeting of impacts and, hence, identification of appropriate response measures.

138. Modest support was given to the GCOS secretariat to assist in the planning and organization of a workshop to identify systematic observation needs in the Pacific region. The workshop, organized in collaboration with the South Pacific Regional Environment Programme (SPREP), was held in August 2000. Provision has been made in the 2000-2001 budget for similar support for a workshop in Africa. These workshops were encouraged by the Conference of the Parties to the Framework Convention on Climate Change through decision 5/CP.5 adopted at its fifth session.

139. Further to the memorandum of understanding, a limited amount of funding has been made available for assistance in the planning and organization of GCOS statutory meetings, such as those of its steering committee and panels. In all cases, UNEP support is geared towards facilitating the participation of developing country experts at these meetings.

5. UNEP activities in support of atmosphere-related conventions

140. UNEP continues to support the United Nations Framework Convention on Climate Change through its support to IPCC. In turn, IPCC continues to play a critical role in the elucidation of scientific and technical issues under consideration by the parties to the Convention.

141. UNEP's participation as a partner in major global observing systems - i.e., the Global Climate Observing System (GCOS), the Global Ocean Observing System (GOOS) and the Global Terrestrial Observing System (GTOS) - contributes to the improvement of systematic observations essential for climate change detection studies. In total, UNEP has allocated \$190,000 for the three observing systems for the biennium 2000-2001. UNEP has also provided support in kind to GTOS. In addition, in response to decision 5/CP.5, UNEP will be providing support to the tune of \$45,000 for an African workshop to identify needs for systematic observation in the region. This is in addition to earlier support given in 1999 to a similar workshop in the south Pacific region.

142. UNEP has provided technical and administrative support to 22 countries in Africa, Asia and Latin America and the Caribbean to help them prepare their national communications as required by the Framework Convention on Climate Change. Mauritius submitted its national communication in 1999, and Lesotho has submitted its national communication in 2000. It is expected that Cameroon, the United Republic of Tanzania and Zambia will all submit their national communications before the end of 2000.

Early in 2000, the Libyan Arab Jamahiriya, Palau and Rwanda requested assistance in preparing their national communications, while Lesotho, Mauritius and Zimbabwe are seeking GEF funding for follow-up activities after the completion of their initial national communications.

143. A programme on adaptation and climate change has been initiated through joint efforts with IPCC. The first outcome of this undertaking was the formulation of guidelines for assessing impacts of climate change, and this was followed by the preparation of a UNEP handbook on methods for climate change impact assessment and adaptation strategies. The handbook on methods was tested in a GEF-supported project on case studies on climate change impact and adaptation assessment, involving four countries - Antigua and Barbuda, Cameroon, Estonia and Pakistan. Thanks to funding from the Government of Denmark, further studies have also been undertaken in Bangladesh and Cuba. On the basis of this work, the handbook has been refined and published. It has now also been translated into French and is widely used in preparing national communications under the Framework Convention. In addition, UNEP has prepared an authoritative guide on the concepts and appropriate use of mitigation and adaptation cost assessment. The handbook contains a chapter on adaptation, which presents methods for determining the cost of response measures to climate change. These guidelines continue to inform the negotiation process under the Framework Convention.

144. The Information Unit on Conventions continues to raise awareness through media activities and supports the secretariat of the Framework Convention on Climate Change in meeting its media needs. In addition, the GEF enabling activities portfolio under the purview of UNEP includes a capacity-building component. A summary of the IPCC special report on technology transfer, presenting the main conclusions and recommendations of the report in an easy-to-read manner, is under preparation.

145. UNEP is also implementing a number of energy-related climate change projects and providing various kinds of technical and capacity-building assistance on climate change issues to a large number of developing countries. As part of these efforts, UNEP has prepared guidelines for national strategy development, including an analysis of climate change response measures.

146. Work is currently under way on the preparation of a project on solar and wind energy resource assessment, under block B of the GEF Project Preparation and Development Facility (PDF). The primary output of this project is the development of a project brief eligible for GEF support. As the project is global in its range, regional and national components will also be developed along with investor partners and other stakeholders in solar and wind energy. Regional meetings will be held in Africa, Asia and Latin America. Uniform mapping methodologies and formats for GIS data will also be established, in keeping with the energy policy and land use planning needs of developing countries. The intention is for the final results of the project as a whole (GEF-funded to the tune of \$5 million) to be integrated with the UNEP GEF (GIS) Web site, and for further services to be offered through the UNEP technology transfer clearing house. The results will also be made available to the Framework Convention on Climate Change as an example of what can be done in this area.

147. UNEP has been active in promoting information for decision-making and awareness relating to both climate change in general and the Framework Convention on Climate Change in particular. In cooperation with the Convention secretariat, UNEP is taking action to promote the implementation of article 6 of the Convention, which addresses public awareness, education and training. In addition, IPCC's findings need to be widely disseminated to various decision makers and the general public in a targeted manner, in order to maximize the benefit of the Panel's work.

148. As part of these efforts, UNEP has developed an information package called "vital climate graphics". Bearing in mind the mandate of UNEP under the Climate Agenda and its area of competence in the climate change area, the first set of vital climate graphics will focus on the impact of climate change. These will be mainly based on the findings of the IPCC's second assessment report, in particular the contribution of working group II on the impacts, adaptation and mitigation of climate change, and IPCC's special report on regional impacts of climate change. The graphics will be prepared as overhead slides and CD-ROMs, and will be accessible on the Internet. They were made available at the sixth session of the Conference of the Parties to the Framework Convention on Climate Change, held in The Hague in November 2000.

149. Working together with the UNEP Collaborating Centre on Energy in Risø, Denmark, UNEP has conducted a series of workshops to build capacity in Africa to handle the Clean Development Mechanism of the Kyoto Protocol. UNEP is also assisting signatories to the Framework Convention on Climate Change, in particular developing countries, in tackling the issue of climate change through initiatives, case studies and advisory services that address matters such as investing in renewable energy technologies, setting up rural energy enterprises, and using economic instruments and energy subsidies. In June 2000, as mentioned above, UNEP launched a pilot sustainable energy advisory facility that gives the organization the ability to meet very specific country needs relating to a broad range of sustainable energy topics.

150. In addition, UNEP is about to initiate a sustainable technologies alternatives network in a strategic partnership with GEF, with a view to encouraging the consideration of and investment in sustainable technology alternatives.

151. Programmatic support by UNEP for the ozone treaties is mainly provided through its OzonAction programme, managed by the Energy and OzonAction Programme Section in the Division of Technology, Industry and Economics.

152. The activities cover a clearing-house function related to information on the ozone layer and its depletion (a service available to all parties to the Montreal Protocol, including both developing and developed countries), and activities related to non-investment projects for phasing out ozone-depleting substances in developing countries. These projects involve the preparation of country programmes to phase out ozone-depleting substances and promote institutional strengthening in most of the 131 developing countries that are parties to the Montreal Protocol. OzonAction programme activities also involve the establishment and maintenance of five regional networks of national ozone units (again, involving not less than 100 countries).

153. Recent scientific observations of the ozone layer over both the South Pole and the North Pole appear to reveal that the expected improvement trend in the state of the ozone layer is not materializing. There is as yet no consensus as to the reason for this, but some scientists have expressed the opinion that it could be linked to the cooling trend observed recently in the stratosphere, a trend related to climate change.

154. In view of this new development, it is vital that such scientific activities as monitoring and assessing the state of the ozone layer should now receive wider programmatic support from UNEP. In pursuance of article 3 of the Vienna Convention for the Protection of the Ozone Layer, which deals with systematic observation of the ozone layer, UNEP plans, within available resources, to assist such assessments in the future.

B. Energy

155. The main goal of the UNEP energy programme is to bring about a global shift to energy systems that are less disruptive to the environment. To this end, UNEP is taking the following steps:

(a) Promoting information exchange on energy-efficient technologies and renewable energy technologies through its publications and an expanding network of information sources;

- (b) Building the capabilities of government and industry decision makers to respond to energy and environment (including transport) issues;
- (c) Facilitating the provision of advisory services to financial institutions on energy investment;
- (d) Creating a network of regional and subregional centres of excellence, capable of providing technical assistance to decision makers in government and industry;
- (e) Developing alliances and partnerships with the private sector (financial institutions, renewable energy industry, relevant industry associations) and other United Nations organizations (e.g., the UNESCO World Solar Programme).

156. UNEP is contributing to the discussions on energy to be held as part of the ninth session of the Commission on Sustainable Development in a number of ways. It took an active part in the meeting of an ad hoc open-ended intergovernmental group of experts on energy and sustainable development, held in March 2000, making a presentation at the first session on the environmental implications of current patterns of energy use. The presentation was requested by the co-chairs of the expert group, and was given during the plenary expert panel on global energy trends and sustainable development.

157. UNEP has provided substantive input for the report of the Secretary-General on the key issues of energy and sustainable development; this document was the main input from the United Nations system into the early preparatory process for the ninth session of the Commission on Sustainable Development. UNEP later provided extensive comments on the discussion paper on energy and sustainable development, presenting options and strategies for action on key issues.

158. UNEP has prepared three case studies on various aspects of sustainable energy, highlighting its work in Africa. These will be used in various preparatory meetings to highlight practical steps that various stakeholders might wish to take to promote sustainable energy approaches.

159. Working together with the Division for Sustainable Development in the United Nations Department of Economic and Social Affairs, UNEP jointly organized in Nairobi an African high-level meeting on energy and sustainable development, with a view to helping countries prepare for the ninth session of the Commission on Sustainable Development and eliciting formal inputs from African countries to the process. The meeting included a technical segment, where 40 African energy experts discussed the key issues of the planned energy segment of the Commission's ninth session, and a ministerial segment, where 15 energy ministers from African countries prepared an African statement on energy and sustainable development for submission to the Commission.

160. UNEP has produced an issue of its Industry and Environment Review on the topic of sustainable energy, which includes articles on various aspects of this broad issue raised during the preparatory process for the Commission's ninth session. The special issue contains contributions from experts in Governments, industry, academic institutions and non-governmental organizations, and presents technical and policy options for the promotion of sustainable energy approaches in developed and developing countries. The preface to the issue was written by the two co-chairs of the expert group.

161. UNEP is exploring the possibility of conducting a side event or events on energy at the Commission's ninth session. Finally, it has been an active supporter of the Inter-agency Task Force on Energy set up to coordinate United Nations system input into the ninth session of the Commission on Sustainable Development, and has hosted one of the task force's meetings.

C. Transport

162. As its contribution to the transport segment of the Commission's ninth session, UNEP has provided a background paper on the role of the transport sector in environmental protection. The paper looks at the role of the transport sector in economic and social development, its environmental impacts, improvements

undertaken in the past and challenges for the future, and suggests measures that could be taken by Governments, industry and the international community. UNEP also participated in an expert group meeting on transport and sustainable development, organized by the United Nations Department of Economic and Social Affairs, at which participants identified and discussed key issues in the light of background papers delivered by various United Nations agencies. The content of the background papers and the outcome of the discussions will serve as an input to the Secretary-General's report to the Commission at its ninth session.

163. Another issue of Industry and Environment Review was devoted to the topic of sustainable mobility; this included contributions from Governments, industry and non-governmental organizations, and presented best-practice case studies on policy and technical options in developed and developing countries.

164. UNEP is also exploring the possibility of conducting a side event or events on transport at the Commission's ninth session.

D. Information for decision-making and participation

165. Environmentally sound decision-making relies on two types of information: the assessment of environmental issues and the potential solutions (in particular, technologies) to respond to the problems identified. UNEP provides both types of information.

166. A number of new initiatives and developments in UNEP have taken place over the last few years. As stipulated in the Nairobi Declaration, UNEP has strengthened a core element of its programme: its information, monitoring and assessment functions. Through these functions, UNEP has continued to build the scientific knowledge base for environmental actions and decision-making by all actors to implement Agenda 21. These tasks are carried out at the national and global levels by supporting networking, coordination and institution-building measures in key centres, so as to improve information management and national and regional environmental assessments. The key centres will be incorporated into the global state-of-the-environment reporting processes. By promoting improved communication and networking technologies, UNEP is facilitating access by Governments and intergovernmental and non-governmental organizations to unique sources of data and information. UNEP also catalyses and makes use of targeted scientific research into ways of providing improved environmental information management in decision-making.

167. The assessment capacity of UNEP has been strengthened through the launch of the Global International Waters Assessment (GIWA) as the main assessment mechanism to analyse current problems, including their root causes, and to develop scenarios for the future condition of the world's water resources. Furthermore, by transforming the World Conservation and Monitoring Centre (WCMC) into the UNEP Global Biodiversity Information and Assessment Centre, UNEP has strengthened its capacity in assessing the global environment, as well as in helping provide the information needed by countries for decisions related to sustainable development.

168. UNEP has kept the state of the world's environment under review through global and regional state-of-the-environment reports. It successfully launched the second report in its Global Environment Outlook series - GEO-2000 - in September 1999, and its youth version entitled Pachamama – Our Earth, Our Future in October 1999. UNEP has begun preparation of the third GEO report (GEO-3), to be published in 2002. By giving a definitive assessment of the global environment, GEO-3 will constitute a major input to the 10-year review of the outcome of the 1992 Earth Summit. The GEO-3 process will gather and synthesize the knowledge of more than 850 people in 35 institutions around the world. On that basis, GEO-3 will provide a 30-year retrospective and 30-year forward-looking perspective, and aim to reframe the way in which the international community understands and responds to the environment in the new millennium.

169. The report jointly prepared by UNEP, UNDP, the World Bank and WRI entitled World Resources 2000-2001; People and Ecosystems: The Fraying Web of Life, published in September 2000, presented the results of the pilot phase of the Millennium Ecosystem Assessment, a major international collaborative effort to map the health of our planet, initiated, among others, by UNEP, UNDP, the World Bank and WRI.

170. UNEP continued to provide policy makers with early warning and information on emerging issues and environmental threats in order to facilitate policy dialogues on such issues and to promote the development of impact reduction strategies. The UNEP Global Resource Information Database (GRID) contributes to the development of capacity for early warning of emerging environmental issues and threats. Recently developed data sets cover such areas as population and the terrestrial environment, transboundary resource issues and natural hazards. Additional areas on which data sets are being developed include refugees and the environment, and the emerging threat to global freshwater.

171. Activities in this field are carried out with a worldwide network of partners for environmental assessment and information. The global environmental information exchange network of UNEP, INFOTERRA, promotes public access to environmental information. It is being reformed with a view to improving such access and strengthening the capacity of the public to participate in environmental decision-making.

172. In the field of technology transfer, UNEP facilitates information exchange through the operation of various clearing houses. These include the OzonAction Information Clearing House, the International Cleaner Production Information Clearing House, the MaESTro database on environmentally sound technologies, the Mineral Resources Forum, the Offshore Oil and Gas Environment Forum, the Sustainable Agri-food Forum and various chemicals Web sites. In the field of chemicals, UNEP has also undertaken a project to enhance the use of the Internet in improving chemical safety in Africa, by providing country focal points with computers, software, databases, Internet access and training.

173. In partnership with GEF, UNEP is also initiating a sustainable technologies alternatives network, which will aim to enhance knowledge management and information-sharing for environmentally sound decision-making and to promote the implementation of multilateral environmental agreements. The goal of this core activity under the UNEP-GEF strategic partnership is to design a technology transfer network covering all GEF focal areas, i.e., climate change, biological diversity, international waters and ozone layer depletion, and also desertification and persistent organic pollutants insofar as they relate to GEF'S core mandate. The comprehensive network approach followed in this new project responds to corporate GEF demand identified through its implementing and executing partners. It will foster the rapid transfer of cleaner technology alternatives to and within recipient country markets. It will also promote the adoption of business practices consistent with global environmental agreements.

174. UNEP's contribution to information for decision-making also includes its long-standing work to encourage individual companies to report on their environmental performance and the implementation of their voluntary commitments. Since 1994, UNEP and the London-based company SustainAbility Ltd. have produced 11 reports on corporate sustainability reporting through the joint "Engaging Stakeholders" programme. This programme has developed a strong reputation among a variety of stakeholders as a credible authority on corporate reporting. It is designed to meet the ever-increasing demand for the benchmarking of corporate sustainability reports, and the further analysis of sustainability reporting at the sector level.

175. The key role of UNEP in the Global Reporting Initiative since its inception in 1997 is a logical extension of the organization's involvement in activities to enhance corporate reporting. The initiative, convened by the Coalition for Environmentally Responsible Economies (CERES) and UNEP, issued its revised sustainability reporting guidelines on economic, environmental and social performance in June 2000. Financial support received in 2000 by UNEP from the United Nations Foundation is being used to design a permanent, independent host institution that will become the steward of the global reporting initiative process. The second international symposium on the Global Reporting Initiative, which was addressed by the Executive Director, was held in Washington in November 2000.

176. In the field of environmental law, UNEP and IUCN have continued the development of a joint environmental law information service named ECOLEX, which has been made available on the Internet at the site www.ecolex.org.

E. International cooperation for an enabling environment

177. Since its inception, UNEP has been active in promoting international cooperation for an enabling environment. It has been helping developing countries develop their national environmental mechanisms and coordinating international cooperation to this end, in such areas as the development of national environmental legislation and institutions. In cooperation with donor Governments and partner organizations, UNEP undertakes a wide range of capacity-building activities designed to catalyse actions in the field of the environment. These activities are carried out as part of the UNEP programme of work, encompassing such areas as environmental assessment, environmental management and technology, policy development, the development of national environmental legislation and institutions and the promotion of the implementation of environmental conventions. Further information on this issue may be found in documents UNEP/GC.21/4 and INF/15 concerning institution-building.
