technology and food safety at OECD headquarters on 20 November. Representatives of some 50 bodies from civil society and from the scientific and business communities attended and discussions focused on three main topics: consumer concerns, environmental concerns and agro-food concerns.

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Water Plan

At the EuroMed Ministerial Conference on local water management in October 1999 in Turin, twenty-seven European Union Member States and Mediterranean countries called for the implementation of a “Marshall Plan” to guarantee access to water.

Delegates adopted a Declaration providing for an action plan outlining their priorities. They also identified sources of funding to remedy a water production situation in a region already considered a cause for concern.

The European Union will release Euro 5 billion and the World Bank and European Investment Bank an additional Euro 3 billion for action in this area.

According to the experts, 29 million people living along the Southern shores of the Mediterranean are already under the “critical” per capita threshold of 500 cubic metres. A total of 115 million people have access to less than 1,000 cubic metres, already held by experts to be “insufficient.”

The action plan promotes, as a first step, the following six priorities:

- integrated management of local drinking water supply, sanitation and sewage services;
- local water resources and water demand management (quantity and quality) within catchment areas and islands;
- prevention and mitigation of the negative effects of drought and equitable management of water scarcity;
- irrigation water management;
- use of non-conventional water resources;
- preparation of national and local scenarios for the period until 2025 that enable precise objectives to be set and action to be taken for sustainable water management.

When implementing these six priorities, the following activities will be considered:

- strengthening institutional capacity and training;
- exchange of information and know-how in a coherent manner;
- transfer of know-how and technology;
- awareness raising, mobilisation and promotion of commitment by all beneficiaries.

Within the framework of this Action Plan, the MEDA programme, in its regional context, should be mobilised by means of a call for proposals for significant regional projects as soon as possible after the Turin Conference.

The objective is to implement a coherent set of operational projects resulting from the Action Plan in the year 2000. Euro-Mediterranean Water Directors and the Commission will be entrusted with coordinating, follow-up and assessing the implementation of the Action Plan. To achieve this, they will make use of the Mediterranean Water Network and the Euro-Mediterranean Water Management Information System (EMWIS).

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**SELECTED DOCUMENTS**

**UNEP**

**Water Strategy and Policy (Draft)**

2 Statement of Key and Emerging Issues Related to Water

Although much effort has been expended by many governments, international and national organizations and agencies in attempting to address priority water-related problems, the recent report of the UNEP Global Environment Outlook (2000) shows the gaps and weaknesses. It is obvious that UNEP alone cannot address all the freshwater, coastal and marine environment problems. Nor can any single UN agency or government. It will require serious co-ordination and collaboration among all relevant Parties, each capitalising on its comparative advantage.

In the UNEP GEO-2000, leading scientists around the world identified, as major problem areas, freshwater stress and scarcity (including water conflicts), freshwater, coastal and marine pollution, habitat degradation, overfishing and the need for aquatic biodiversity protection as well as the degradation of coastal areas.

Freshwater problems centre on two key issues: Quantity and Quality. Issues of quantity involve both shortage (drought) and excess (floods). The magnitude and severity of these problems vary from region to region and between years. However, the global trend is towards decreasing freshwater availability for human use and consumption due to increasing demand.

Food production places a high demand on water. Between 70 and 80 % of present water withdrawals are intended for irrigation purposes and most of the 800 million people currently suffering food shortages live in the water scarce regions of the world. If current trends continue, food aid in terms of subsidized or free food might have to increase 20 times over current levels. To meet the needs in food deficit areas, food production in the industrialized countries would have to more than double by 2025. Regional water scarcity will thus have far-reaching consequences on a global scale.

The increasing proportion of the world’s surface and ground water resources diverted to human use results in severe environmental problems including increased desertification, land degradation, loss of soil fertility and loss of productive wetland and aquatic habitats. Recent estimates suggest that 25 % of arable land is affected by man-induced soil degradation of which 60 % is from water erosion, 22 % by wind, 14 % by nutrient losses, and 4 % by salinization. Poor land-use practices result in enhanced sediment loads and nutrient inputs causing degradation of freshwater and coastal aquatic habitats and ecosystems.

Increasingly, water-related environmental problems are becoming transboundary in scope as local pollution problems increase in spatial extent as a result of more people, more fertiliser and more industries with inadequate pollution controls; long range transport mechanisms contaminate water bodies at a distance from the source; and subsidized and over-capitalized fishing fleets chase declining stocks of transboundary and highly migratory fish stocks. Water supply problems relating to both quantity and quality have been, and continue to be a source of international tension while at the national level conflicts are increasingly apparent between economic sectors and conflicting uses such as urban-industrial, versus rural and agricultural use.

Marine related issues and problems centre on over-fishing and the use of destructive fishing gear; loss and degradation of highly productive ecosystems in the transition zone between land and ocean (due to increasing rates of coastal...
UNEP's Mandate and Role
UNEP Expanded Policy Mandate, 1992
In 1992 the Earth Summit in Rio expanded the UNEP Policy mandate. Priority areas on which UNEP should concentrate include the following:
(a) Promoting international cooperation in the field of environment and recommending, as appropriate, measures in this end.
(b) To Support to Governments, upon request, and development agencies and organs in the integration of environmental aspects into their development policies and programmes, in particular through provision of environmental technical and policy advice during programme formulation and implementation.

Excerpt from UNCED Report A/CONF.151/26 para. 38.22

UNEP Refocused Policy Mandate, 1997
The 19th Session of the Governing Council adopted the Nairobi Declaration on the Role and Mandate of UNEP which refocused the policy mandate.
(a) To … provide policy advice … based on the best scientific and technical capabilities available;
(b) To advance the implementation of agreed international norms and policies …
(c) … to serve as an effective link between the environmental community and policy makers;
(d) To provide policy and advisory services in key areas of institution building to Governments and other relevant institutions.

3 Statement of UNEP's Water Strategy and Policy
In light of the growing recognition of the potential severity of water related environmental problems worldwide, UNEP's Water Strategy and Policy will place considerable emphasis on addressing these problems in an holistic, integrated and co-ordinated manner.

3.1 Goals of UNEP's Water Strategy and Policy
- Adopt integrated approach to freshwater systems and coastal and marine environments.
- Conduct a global assessment of freshwater, coastal and marine biodiversity and ecosystems.
- Assist Governments in establishing integrated management plans/programmes for the aquatic environmental hot spots, based on the assessment results.
- Assist Governments in the implementation of integrated management plans/programmes, through exchange of information, technical training, resource mobilization.
- Promote precautionary, preventive and anticipatory approaches.
- Development of management tools, guidelines, and training manuals relating to integrated water management.
- Application of precautionary, preventive and anticipatory approaches.

3.2 The focal areas include:
- Freshwater scarcity and water conflicts between sectors of human activities and aquatic ecosystems.
- Land-based sources of pollution and alteration of habitats, and their impacts on the aquatic ecosystems, of habitats of vital importance in maintaining marine ecosystems.
- Protection of aquatic biodiversity, services and benefits of ecosystem functioning, and their relationship with fisheries and aquaculture.
- Planning of resource use and environmental protection in harmony with economic and social development.
- Transfer of knowledge and technologies in integrated water management.

3.3 Statement on Strategic Activities and Approaches in Support of UNEP's Water Strategy and Policy
- Global assessment of major aquatic ecosystems (river/lake basin, large marine ecosystems, aquifers).
- Provision of data/information for global assessment in co-operation with other organizations.
- Forecasting of freshwater scarcities and development of guideline for equitable sharing of freshwater resources.
- Development of management strategies and tools for land-based activities affecting the coastal and marine environment.
- Transmission of guidelines and programmatic approaches to already existing regional mechanisms for the assessment and management of freshwater, coastal and marine resources, to be implemented through the Regional Seas Conventions and Action Plans and Environmentally Sound Management of Inland Waters (EMINWA).
- Diagnosis of transboundary freshwater problems and their underlying causes.
- Evaluation and promotion of environmentally sound technologies.
- Development of guidelines and implementation of pilot projects to demonstrate the usefulness of management tools and guidelines.
- Fostering and development, where appropriate, of new and innovative approaches and mechanisms for assessing and managing the aquatic environment and its associated resources.

4 Key components of UNEP's Water Strategy and Policy
4.1 Assessment
The main framework for UNEP's future assessment activities will be the Global International Waters Assessment (GIWA). Existing assessment-related activities, such as the Global Environmental Monitoring System (GEMS/Water), will continue to provide information and data that will be used in the GIWA process. UNEP's future work will be more directed to addressing the current priorities and emerging issues. GIWA will make use of the Regional Seas networks and its expert groups dealing with marine pollution assessment. The outputs of GIWA will then be used to guide priority setting within the implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA), and in the revitalization of the Regional Seas Conventions and Action Plans.

The need for the Global International Waters Assessment (GIWA)
The lack of a comprehensive assessment of transboundary water bodies, both marine and fresh water, has been a unique and serious impediment to the implementation of agreed actions. At present, there is no firm basis on which to identify areas of global priority for intervention. Furthermore, many actions aimed at resolving environmental problems have frequently failed to locate, the geographical boundaries of the problem as well as its societal root causes.

Mandate, Objectives and Role

Key Points
- GIWA concentrates on topics of critical importance to the international community, comprising 22 issues grouped into 5 major areas of concern (freshwater shortages; pollution; habitat and community modification; unsustainable exploitation of fisheries and other living resources, and global change).
- GIWA has a broad geographical scope, covering 66 geographical units of assessments, grouped into 9 mega-regions for management purposes.
- It adopts an holistic approach, involving political, economic and social considerations as well as environmental concerns. With funding provided by the Global Environment Facility (GEF) and partners, GIWA is a complement to UNEP's water programme.
- Its four year initial funding guarantees its sustainability in the medium term. The development of transboundary water bodies, both marine and fresh water, has been a unique and serious impediment to the implementation of agreed actions. At present, there is no firm basis on which to identify areas of global priority for intervention. Furthermore, many actions aimed at resolving environmental problems have frequently failed to locate the geographical boundaries of the problem as well as its societal root causes.

GIWA is executed by UNEP in collaboration with the partners listed below under the Global Environment Facility. It is anticipated that additional partners will be added to this list.
- GIWA will make full use of existing assessments and all other available information to avoid duplication of work. Co-operation with and linkages to all relevant international and national organizations will be established.
- GIWA's ultimate goal is to provide governments, decision-makers and funding agencies with a quantitative, scientifically accurate identification and assessment of water-related issues in sub-regions around the world. This will facilitate the identification of priorities by the GEF and its partners for remedial and mitigatory actions in international transboundary water bodies, thus enabling countries to manage their water resources in a sustainable manner.

Other aims include the following:
- Serving as an effective mechanism for the conservation of all water-related information

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generated through the various activities of the UN and its specialized agencies.

- For tackling the provision, by UNEP, of expert input in terms of assessment, policies and strategies.
- For bridging the traditional separation between freshwater and seawater assessments, hence the focus on marine areas and their freshwater drainage basins.
- For providing basic and currently unavailable information to the public. This will help to foster a greater understanding of the severity of environmental problems in international waters, their societal causes and the options available for solving them.

Workplan
GIWA will be implemented in four phases.

Phase One. Work will concentrate on the establishment of the GIWA network consisting of national experts and institutions, regional and global aquatic analysis (Focal Points and Task Teams) etc. organized around the 66 geographical units of assessment (sub-regions) and nine major regions (mega-regions).

Phase Two (Analytical Phase) will Entail gathering and analyzing the information necessary for applying the GIWA Assessment Protocol at the sub-regional level.

Phase Three (Predictive and Policy Options Analysis Phase), Scenario development and policy options analysis will be carried out during this phase.

Phase Four (Dissemination Phase) will Concentrate on the preparation and dissemination of the global and regional GIWA products, such as reports, reviews, databases etc. that are easily comprehensible to various sectors of society.

Main outputs
- A GIWA Assessment Protocol, including an agreed methodology for conducting causal chain analyses to examine societal causes of water-related environmental problems
- A methodology for making transboundary aquatic analysis at regional and sub-regional levels
- An integrated, result-oriented approach adopted to the GIWA strategic goals and objectives
- A global analysis of the societal causes of major water-related concerns and principal issues.

4.2 Management
UNEP’s Water Strategy and Policy will cover freshwater management, including sustainable water supplies, management of ecosystems at the drainage level and integrated river basin and coastal area management.

Marine pollution and habitat degradation are mainly caused by land-based activities, with pollutants reaching the coastal environment largely through rivers. In order to address these issues, UNEP’s Water Strategy and Policy will adopt an integrated approach to river basin management, which will also provide programmatic support to marine and coastal management. Integrated coastal area management will include marine planning and the sustainable development of coastal areas, whilst preventing the environmental degradation of coastal ecosystems.

The Global Environment Facility

The Global Environment Facility (GEF) is an international financing entity, of which UNEP is one of the implementing agencies. With its establishment in 1991, the GEF, which was established to address the incremental costs of achieving global environmental benefits, is designed to meet the incremental costs of achieving global environmental benefits. The GEF is the most significant source of international funding to assist countries in addressing the degradation of aquifers, basins, lakes, oceans, rivers and wetlands of international significance. International waters have been designated as one of the GEF’s four focal areas, for which GIWA will provide crucial information. GIWA will be used in partnership with the Governments of Sweden and Finland, the United States National Oceanic and Atmospheric Administration, the Municipality and University of Kalmar, and UNEP.

UNEP is also currently undertaking a GEF-funded assessment of the damages and threats to the environment caused by Persistent Toxic Substances. This regionally based assessment will evaluate priorities for intervention and will support the Persistent Organic Pollutants (POPs) negotiations. This assessment is complementary to, and supportive of, the Global International Waters Assessment.

The Regional Seas Conventions and Action Plans provide the major legal, administrative, substantive and financial framework for the implementation of Chapter 17, in particular, of Agenda 21. UNEP’s role in the preparation of the Global Seaboard Programme was created in 1974 as a global programme implemented through regional components. At present, it includes 17 region-wide regions worldwide with more than 140 coastal States and territories participating. Based on periodically revised action plans adopted by high-level intergovernmental meetings, the Regional Seas Conventions and Action Plans are implemented, in most cases, within the framework of legally binding regional conventions, under the authority of the respective contracting parties or intergovernmental meetings.

The Regional Seas Conventions and Action Plans are action-oriented programmes that focus not only on the mitigation or elimination of the consequences, but also on the causes of environmental degradation. The comprehensive, integrated, result-oriented approach adopted to combat environmental problems through the regional management of the GEF, the implementation of the GEF’s four focal areas, and the protection of the coastal and marine environment, the Global Marine Environment from Land-Based Activities (GPA) will help set UNEP’s management goals and priorities. The ongoing revitalization of the Regional Seas Conventions & Action Plans will increase the GPA’s effectiveness as they will continue to provide an umbrella context for the implementation of the guidelines and other action proposals emanating from the GPA.

POLICY OBJECTIVES

The policy objective related to the GEF and stated in Agenda 21, agreed upon by Governments at the UNCED conference in 1992, is “to prevent, reduce and control degradation of the marine environment so as to maintain and improve its life-support and productive capacities.”

Agenda 21 states that to achieve this policy objective, the following are, amongst others, required:

- Application of preventive, precautionary and anticipatory approaches to prior assessment of activities that may have significant adverse impacts upon the marine environment.
- Implementation of the protection of the marine environment into relevant general environmental, social and economic development policies;
- Development of economic incentives;
- Application of clean technologies;
- Internalization of environmental costs through e.g., the polluter pays principle;
- Improvement of the living standards of coastal populations, particularly in developing countries.

The GEF, which was adopted by 108 governments in 1995, translates this overall policy objective into national, regional and global level objectives.

- At the national level, to develop comprehensive, continuing and adaptive programmes of action within the framework of integrated coastal management, harmonized with river basin management and land-use plans.
- At the regional level, to strengthen and where necessary, create new regional co-operative arrangements and joint actions to support effective action, strategies and programmes at the national and local levels.
- At the international level, to strengthen existing international co-operation and institution of mechanisms and, where appropriate, to establish new arrangements, in order to support States and regional groups to undertake sustained action to address the impacts of land-based activities upon the marine environment.

UNEP’s Mandate and Role

The GEF recognizes that action to protect the marine environment from land-based activities is, in the first place, the duty of national governments, within the appropriate international institutional frameworks.

The Washington Intergovernmental Conference selected UNEP as the GPA secretariat. As such UNEP’s role is, amongst others, to:

- Promote and facilitate the implementation of the GPA at the national, subregional and regional levels through, in particular, a revitalization of the Regional Seas Conventions & Action Plans;
- Catalyze the implementation of the GPA at the international level by, amongst others, UN organizations, development banks and the Global Environment Facility (GEF);
- Review progress in the implementation of the Global Programme of Action;
- Promote international experience and exchange of knowledge that would be mutually supportive and part of a cyclic process: Analysis for Action; Mobilizing Action at the National, Regional and Global levels; and Evaluation and Further Development of the GPA.

Strategy to Achieve the Policy Objectives and Implement UNEP’s Role as the GPA Secretariat

To implement UNEP’s role as the GPA secretariat, three clusters of activities will be implemented in 2000–2001. (The strategy will be reviewed in 2001 based on the outcome of the first intergovernmental review meeting of the GEF.)
The Conference of Plenipotentiaries to Adopt the Protocol Concerning Pollution from Land-based Sources and Activities to the Conven- tion for the Protection and Development of the Marine Environment of the Wider Caribbean Region, was organized in Oranjestad, Aruba, between 27 September and 6 October 1999. The Conference was co-hosted by the Gov- ernment of Aruba (Kingdom of the Netherlands) and the United States of America. The Conference of Plenipotentiaries adopted the Protocol Concerning Pollution from Land-based Sources and Activities to the Conven- tion for the Protection and Development of the Marine Environment of the Wider Caribbean Region. This Protocol will be open for signa- ture at Santa Fe de Bogota, Republic of Co- lumbia, from 7 October 1999 to 6 October 2000 by Contracting Parties to the Convention for the Protection and Development of the Ma- rine Environment of the Marine Environment of the Wider Caribbean Region and by any other State that becomes a Contracting Party to the Convention during this period.

- Mobilizing action at the national and regional level, particularly within the framework of the Regional Conventions and Action Plans; the output will include six monthly reviews of the contribu- tions made by the Parties concerned as well as an intergovernmental review meeting in 2001.

Co-Ordination

The implementation of the GPA activities will be carried out in very close consultation and co-ordination with the Parties concerned. This co-ordination will be at several levels, notably, within UNEP (where all the Divisions will play specific roles); at the governmental level, which will entail regular consultations with govern- ments; at the intergovernmental level (where the GPA Secretariat will work closely with the sub-committees on oceans and coastal areas and freshwater respectively of the UN Administrative Committee on Co-ordination as well as with the Commission on Sustainable Development). At the inter-agency level, collaborative arrange- ments will be maintained with the Interagency Committee on Sustainable Development. The respective agencies are already making contri- butions in areas of relevance to the nine source categories of the GPA, which fall under their areas of expertise. The on-going co-operation at the sub-regional and regional levels will be strengthened.

Monitoring and Evaluation

The efficacy in implementing the pro- gramme, and the ways and means of furthering its implementation will be considered at periodic intergovernmental meetings, both at the regional and global level. In preparation for these meetings, States will be encouraged to provide reports, directly or through relevant regional or- ganizations, on the implementation of the GPA. NGOs and other partners will also be invited to report on relevant activities. These meetings will also review coordination and collaboration among organizations and institutions, both re- gional and global, that have relevant responsibil- ities and experience. A reporting format will be developed for this purpose. The major purpose of the intergovernmental review processes will be to promote the further development of the GPA, rather than being a static review of what has been accomplished. The biannual booklet on the implementation of the GPAs by partici- pants is one aspect of this ongoing monitoring and eval- uation process.

4.3 Supporting Elements and Instruments

**Comprising the Strategy for Implementing Unee's Water Policy**

UNEP's Water Policy is founded on a set of strategic elements, which include the following:

- **Technology Transfer**

Technology transfer plays a pivotal role in helping us to maintain and improve our environ- mental and economic systems. Therefore, destroying or otherwise debilitating these water-related ecosystems provide a wide range of alternative technologies, which are more suitable and less expensive sources of energy to reduce the cost of desalination also needed.

Fortunately, there is an expanding environ- mental industry around the world capable of providing solutions rather than creating problems. UNEP supports the transfer of appropriate tech- nology, especially in the areas of water manage- ment, and it is also providing advisory services to developing countries to implement this technology. Governments in all regions have made sub- stantial efforts to encourage industries to adopt cleaner production methods, with major suc- cesses in a number of countries.

Greater attention will be given to the use of local technologies, which are more suitable and likely to be successful. We believe that it is necessary to explore these technologies. In addition, UNEP will also conduct awareness-raising initiatives on tech- nology development and transfer in the water sector.

- **Economic Incentives and Sustainable Water Use**

Ironically, human water use in many places is wasteful, due not only to factors such as inap- propriate pricing, water subsidies etc., which work contrary to the goals of water conserva- tion. However, despite such principles as "pollut- er pays", and human experiments in such areas as water pricing, privatization of water utilities, use of subsidies, etc., the evidence suggests that technology development and transfer of more innovative and adaptive technologies is essential to the sustainable development of transboundary fresh- water resources. UNEP’s activities should include capacity-building measures on integrated envi- ronmental and economic assessment.

- **Protection and Conservation of Water-related Ecosystems**

A priority for UNEP is the protection and conservation of water-related ecosystems. While humans typically allocate water supplies solely on the basis of human water needs, wa- ter-related ecosystems provide a wide range of services to humans free of charge. These serv- ices include waste assimilation, nutrient recy- cling, water supply, water regulation, regulation of global cycles, etc. Therefore, destroying or otherwise debilitating these water-related eco- systems will require humans to pay for these previously free services.

UNEP and relevant partners (e.g. IUCN, USAID, Wetlands International) can join forces to develop and refine the concept of ecosystem valuation, particularly in regard to transboundary water resources. This can include using such international fora as the environment and ecology component of the Global Water Part- nership.
UNEP will continue to support international activities in the field of environmental actions related to water. It will also continue to collaborate with sister agencies within the framework of the IACSD.

Co-operation with Selected UN Agencies

UNEP will strengthen relationships with key agencies such as the United Nations Centre for Human Settlements (UNCHS). The alliance between UNEP and UNCHS will be reinforced, particularly in the areas of water and sanitation and land-based sources of pollution, such as sewage. A joint UNEP/UNCHS water project is currently being implemented to assist African countries to address early warning mechanisms to detect "hot spots" where sustainability is threatened and to help them deal with the growing ecological impacts of large cities on the continent's resources. Within the framework of the UNCHS/UNEP Sustainable Cities Programme, cities around the world are currently participating in the development of, inter alia, freshwater management strategies.

Other examples of collaboration between UNEP and UN agencies include the following:

- With IMO, FAO and IUCN, particularly with regard to the various protocols for the Regional Seas Conventions and Action Plans.
- With UNDP and World Bank within the framework of the GEF.
- With IOC, WMO and ICSU in the global observing systems.
- With its partners listed in Box 1 in the framework of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP).
- With WHO, WMO and UNESCO in the framework of GEMS/Water.

At the Regional- and Sub-regional-Levels

The Regional Seas Conventions and Action Plans cover 14 regions, of which the inter-governmental body directly with UNEP in the development of programmes. A number of river and lake basin organizations also participate in the programme for the Environmen-

tally sound Management of Inland Waters (EMINWA) was established by UNEP in the 1980s. It is both an assessment and management tool and concentrates on inland waters. EMINWA assists Governments in implementing environmental considerations into the development and management of freshwater resources, with the objective of recognizing and reconciling conflicting interests.

The Global Environment Monitoring System (GEMS/Water) was developed by UNEP in 1978 to address the immediate fresh water monitoring and assessment data needs of Governments in order to assist them to manage the quality of their water resources effectively. GEMS/Water was also designed to serve the data needs of the scientific community. Its revitalization will lay the foundations of a system for predicting "hot spots" and extreme environmental information and for developing information systems to alertGov-

ernment.

The joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) was established in 1969 with the objective of providing assessment advice on the state of marine and coastal environments. It also prepares assessments of the state of the marine environment with regard to marine pollution, and identifies problem areas requiring special attention. GESAMP is funded by FAO, IAEA, IMO, UN, UNEP, UNESCO, WHO and WMO.

5. Existing assessment and management programmes and tools (Box 1)

- The Programme for the Environmentally sound Management of Inland Waters (EMINWA) was established by UNEP in the 1980s. It is both an assessment and management tool and concentrates on inland waters. EMINWA assists Governments in implementing environmental considerations into the development and management of freshwater resources, with the objective of recognizing and reconciling conflicting interests.
- The Global Environment Monitoring System (GEMS/Water) was developed by UNEP in 1978 to address the immediate fresh water monitoring and assessment data needs of Governments in order to assist them to manage the quality of their water resources effectively. GEMS/Water was also designed to serve the data needs of the scientific community. Its revitalization will lay the foundations of a system for predicting "hot spots" and extreme environmental information and for developing information systems to alert Government.

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6. The UNEP GEF Water Portfolio

- UNEP’s projects and activities within the GEF International Waters portfolio are designed to complement and support UNEP’s mainstream water-related programmes. In addition, they build upon UNEP’s experience and comparative advantage in the field of environmental actions related to water.
- The present GEF portfolio, which has developed since 1996, comprises 19 project development facility activities and 11 full GEF projects, for a total value of US$ 35.5 million.
- Over 85 countries in GEF eligible development regions are directly involved in one or more GEF projects. It is envisaged that this portfolio will continue to grow in the immediate future in support of the implementation of UNEP’s Water Policy.

Organizations in the GEF portfolio are intended to build upon, complement and strengthen the following:
- Regional Seas Conventions and Action Plans, including activities in the Mediterranea
- South China Sea, Western Indian Ocean, and the Caribbean Sea.

The implementation of the Global Programme of Action, including activities in the Russian Arctic, Sáo Francisco and San Juan river basins.

The international chemicals agenda, including national management of Potentially Toxic Substances; DDT phases out in Central America; agricultural run-off to the Caribbean Sea; and Strengthening and improving activities in the GEF portfolio, including the Giwa, and the Regionally Based Assessment of Potentially Toxic Substances.

A wide range of executing agencies are involved in UNEP GEF projects, including the Secretariats of the Regional Seas Conventions and Action Plans. The Organization of American States, the Food and Agriculture Organization of the UN, the World Health Organization, and major international NGOs such as: the International Geosphere Biosphere Programme, and the World Conservation Union. UNEP anticipates further collaboration with both new and existing partners in implementing future GEF International Waters projects that, through the vigorous pursuit of the GEF policy to expand the range of implementing and executing agencies.

Environmental sound Management of Inland Waters, the Global Environment Monitoring System as well as the International Waters Portfolio of the GEF International Waters Portfolio. UNEP has helped organize regional ministerial conferences, which keep environmental challenges and responses under review. These mechanisms and arrangements will facilitate the implementation and periodic refinement of UNEP’s Water Strategy and Policy and also the monitoring of water-related issues. Emphasis will also be placed on the co-ordination of UNEP’s water-related activities at the regional level by making maximum use of the outposted offices and the regional mechanisms already in place. River basin management and regional co-operation are critical prerequisites for meeting water-related challenges. The GEF projects are designed to complement and support UNEP’s mainstream water-related programmes. In addition, they build upon UNEP’s experience and comparative advantage in the field of environmental actions related to water.
• Partnerships with the Broader Civil Society

IUCN recognizes the importance of forging partnerships with NGOs, the scientific community and the private sector through a participatory approach. In order to harness long-term, broad-based support on water-related issues, UNEP will take into consideration different perspectives. Additional partners also mean the more efficient use of resources.

• At the Global Level

UNEP will continue to forge partnerships at the global level. This will include collaborating with existing international partnerships and mechanisms such as, inter alia, the World Water Council (WWC), and the Global Water Partnership (GWP). This approach will enhance UNEP’s leadership role within the international community in efforts to address current water-related issues.

• Support to Africa

With regard to Africa, UNEP will continue to support water policy development, concentrating on the experiences of countries in developing and implementing relevant water initiatives. UNEP’s responses to the water problems of Africa have included an assessment that identified the key issues and challenges facing Africa through “Water for Sustainable Development in Africa: Key Issues”. A Water Strategy for Africa has been developed on that basis. Furthermore, UNEP is chairing the water working group of the UN System Wide Initiative for Africa.

Guidelines for Protected Area Management Categories

– Part II: The Management Categories –

This part of the guidelines examines each of the six categories in turn and considers them under the following headings:

• Definition

• Objectives of Management

• Guidance for Selection

• Organizational Responsibility

• Equivalent Category in 1978 System

Category I: Strict Nature Reserve/ Wilderness Area: protected area managed mainly for science or wilderness protection

Category Ia: Strict Nature Reserve: protected area managed mainly for science

Definition

• Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

Objectives of Management

• to preserve habitats, ecosystems and species in as undisturbed a state as possible;
• to maintain genetic resources in a dynamic and evolutionary state;
• to maintain established ecological processes;
• to observe structural landscape features or rock exposures;
• to secure examples of the natural environmental and cultural attributes if managed as proposed.

Guidance for Selection

The area should be large enough to ensure the integrity of its ecosystems and to accommodate the management objectives for which it is protected.

• The area should be significantly free of human intervention and capable of remaining so;
• The conservation of the area’s biodiversity should be achievable through protection and not require substantial active management or habitat manipulation (cf. Category IV).

Organizational Responsibility

Ownership and control should be by the national or other level of government, acting through a professionally qualified agency, or by a private foundation, university or institution which has an established research or conservation function, or by owners working in cooperation with any of the foregoing government or private institutions. Adequate safeguard and controls relating to long-term protection should be secured before designation. International agreements over areas subject to disputed national sovereignty can provide exceptions (e.g. Antarctica).

Equivalent Category in 1978 System

Scientific Reserve / Strict Nature Reserve

Category Ib: Wilderness Area: protected area managed mainly for wilderness protection

Definition

Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

Objectives of Management

• to ensure that future generations have the opportunity to experience understanding and enjoyment of areas that have been largely undisturbed by human action over a long period of time;
• to maintain the essential natural attributes and qualities of the environment over the long term;
• to provide for public access at levels and of a type which will serve the physical and spiritual well-being of visitors and maintain the wilderness qualities of the area for present and future generations; and
• to enable indigenous human communities living at low density and in balance with the available resources to maintain their life style.

Guidance for Selection

• The area should possess high natural quality, be governed primarily by the forces of nature, with human disturbance substantially absent and be likely to continue to display those attributes if managed as proposed.
• The area should contain significant ecological, geological, physiographic, or other features of scientific, educational, scenic or historic value.
• The area should offer outstanding opportunities for solitude, enjoyed once the area has been reached, by simple, quiet, non-polluting and non-intrusive means of travel (i.e. non-motorized).
• The area should be of sufficient size to make practical such preservation and use.

Organizational Responsibility

As for Sub-Category Ia.

Equivalent Category in 1978 System

This sub-category did not appear in the 1978 system, but has been introduced following the IUCN General Assembly Resolution (16/34) on Protection of Wilderness Resources and Values, adopted at the 1984 General Assembly in Madrid, Spain.

Category II: National Park: protected area managed mainly for ecosystem protection and recreation

Definition

Natural area of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation incompatible to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

Objectives of Management

• to protect natural and scenic areas of national and international significance for spiritual, scientific, educational, recreational or tourist purposes;
• to perpetuate, in as natural a state as possible, representative examples of physiographic regions, biotic communities, genetic resources,