



UNEP



A PROGRAMME FOR CHANGE

**Decisions from the Fourth Meeting
of the Conference of the Parties
to the Convention
on Biological Diversity**

**Bratislava, Slovakia
4-15 May 1998**





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Foreword

By destroying biodiversity on a massive scale, humanity is also destroying its prospects for social stability and economic development. We must reverse this trend and act urgently to conserve and sustainably use the biological riches of this planet. Only through sustainable development, the fair and equitable sharing of biodiversity's benefits, vigorous national action, and international co-operation can we avoid the social and economic stresses of a biologically impoverished world. For these reasons, the Convention on Biological Diversity can best be viewed as an instrument for achieving peace and prosperity in the 21st century.

In Bratislava, the Conference of the Parties demonstrated its commitment to integrating a concern for biological diversity into all human activities and economic sectors. Drawing on the best available scientific and technical knowledge, the fourth meeting of the Conference of the Parties (COP-4) strengthened the ecosystem approach to biodiversity and made progress on a range of key policy questions. Taken together, the Bratislava decisions and debates reveal a young Convention that is now entering maturity.

The Convention is a complex and ambitious instrument, however, and much remains to be done to make it fully operational. Of particular importance is the need to develop the scientific links between biodiversity issues and the environmental issues discussed in other forums, for example, climate change and desertification. We must also strengthen political and policy co-operation between the Convention (and its future biosafety protocol) and, for example, the new legally binding instruments on persistent organic pollutants (POPs) and on trade in hazardous chemicals.

Such co-operation is vital if the voice of the environment is to be heard in the various forums dealing with economic issues. In response to the globalization of the economy, we must globalize biodiversity and other environmental policy-making. This will require that we develop broad-based partnerships between existing international and regional bodies, including non-governmental organizations, the scientific community, indigenous peoples and the private sector. Only by joining forces will the biodiversity community succeed in raising the political and public profile of this Convention.

Klaus Töpfer

Executive Director
United Nations Environment Programme

Introduction

The fourth meeting of the Conference of the Parties (COP-4) saw the Convention on Biological Diversity (CBD) move from its start-up phase to a long-term planning cycle. Attended by over 1,300 participants from 152 countries, the Bratislava meeting completed a heavy work schedule and adopted 19 decisions. These decisions will guide the work of the Parties and the secretariat until COP-5 (to be held in May 2000) and beyond.

Several decisions addressed the ecosystem programmes being developed under the Convention. One of the Convention's primary innovations is its emphasis on the ecosystem approach, under which species and landscapes are viewed primarily as an integral part of their encompassing ecosystem. Two new ecosystem themes were adopted in Bratislava. The programme on inland waters will launch the first comprehensive, global assessment of inland water biodiversity. It will also promote watershed management; appropriate technologies; research, monitoring and assessment; and cooperative activities such as a Joint Work Plan with the Ramsar Convention on Wetlands.

The newly adopted forests programme will complement existing efforts in other fora, such as the International Forum on Forests. It will add value by emphasizing the ecosystem approach, integrating socio-economic considerations with conservation and sustainable use, and promoting scientific analyses of how human activities and forest management practices influence biodiversity. It will also address links with related treaties and programmes, such as carbon "sinks" in the context of the Climate Change Convention.

COP-4 also reviewed the ecosystem programmes that were established by earlier meetings. It welcomed the continuing contribution of the Food and Agriculture Organization of the United Nations (FAO) to the agricultural biodiversity programme launched at COP-3. It also decided that the international programme on marine and coastal area biodiversity, launched at COP-2, should place a special emphasis on the needs of small island developing states and address the special dangers posed to coral reefs by climate change.

Another important decision dealt with traditional knowledge. The COP established an ad hoc open-ended inter-sessional working group to address the implementation of Article 8(j) and to develop a programme of

work. It invited the World Intellectual Property Organization (WIPO) to consider the concerns of the Convention in its own work.

The COP considered the implementation of the provisions of the Convention on the sharing of the benefits arising out of the utilization of genetic resources. It decided to establish a panel of experts to develop a common understanding of basic concepts and to explore all options for access to genetic resources and benefit-sharing on mutually agreed terms.

Many other issues on the international biodiversity agenda were also the subject of COP decisions. The secretariat was asked to prepare (with the OECD and the World Conservation Union - IUCN) a background paper analyzing the design and implementation of incentive measures for conservation and sustainable use, while Parties were invited to submit more case studies. The COP encouraged Parties and international organizations to cooperate in developing public education and awareness-raising programmes. It decided to start addressing alien species as a cross-cutting issue, and called on the Open-ended Ad Hoc Working Group on Biosafety to complete a biosafety protocol in time for adoption by a special session of the COP in February 1999. The COP also noted the importance of further progress on trade issues and the need for consistency between its decisions and the World Trade Organization.

After reviewing the Convention's operations, including its institutions, procedures and strategies, the Parties agreed that improving their effectiveness will require prioritizing the work, delegating items to subsidiary bodies and strengthening the preparatory process for COP meetings. To ensure synergies with other processes, the COP agreed on the need to harmonize the national reporting requirements of the various treaties, coordinate meeting schedules, promote co-operation amongst countries in the same region, explore scientific co-operation on the environmental linkages between the conventions, identify programmes that have multiple benefits and enhance joint awareness-raising.

Several of the decisions are dedicated to strengthening the information base that is so essential to the Convention's progress. In particular, the Parties supported the Global Taxonomy Initiative which will promote capacity-building and investments to bolster national collections of biodiversity data. They also urged a more intensive development of the Convention's clearing-house mechanism (CHM) which should promote and facilitate technical and scientific co-operation as well as information exchange between countries. The secretariat has been asked to raise the visi-

bility of the CHM by establishing an Internet list server linking all officially designated national focal points.

Finally, the Parties appreciated the flood of national reports that were submitted prior to the meeting in Bratislava. By the time the meeting closed, over 100 Parties and countries had submitted reports on the implementation of the Convention. National reporting of strategies and programmes for promoting the conservation and sustainable use of Biological Diversity is central to the Convention's future, as the responsibility for actually achieving the goals of the Convention rests largely with the Parties themselves. National reports are also the principal means by which the international community can demonstrate concrete progress towards these objectives. The significant amount of work that Parties are putting into these reports is perhaps the most important sign that the Convention on Biological Diversity is entering a new and more dynamic phase.

Calestous Juma

Executive Secretary
Convention on Biological Diversity

**TEXTS OF THE DECISIONS ADOPTED BY THE CONFERENCE
OF THE PARTIES TO THE CONVENTION ON
BIOLOGICAL DIVERSITY AT ITS FOURTH MEETING**

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RELEVANT DOCUMENTS AND DECISIONS FROM THE COP AND THE SBSTTA

A number of COP-4 decisions contained in this booklet refer back to earlier COP information documents and decisions and SBSTTA recommendations.

All these texts can be accessed via the Internet at <http://www.biodiv.org>; COP-2 and COP-3 decisions are also available from the secretariat in the booklets "A Call to Action" and "The Biodiversity Agenda", respectively. In addition, as an aid to the reader some of these texts-which are not part of the official COP-4 decisions-are included here

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DECISION

IV/1

REPORT AND RECOMMENDATIONS OF THE THIRD MEETING OF THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE, AND INSTRUCTIONS BY THE CONFERENCE OF THE PARTIES TO THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE**A. Report and recommendations of the third meeting of the Subsidiary Body on Scientific, Technical and Technological Advice**

The Conference of the Parties,

Recalling its decision III/2, which, *inter alia*, noted recommendation II/11 of the Subsidiary Body on Scientific, Technical and Technological Advice and decided to consider the recommendation further at its fourth meeting as part of the longer term review of the programme of work and the operations of the Conference of the Parties and subsidiary organs,

Also recalling its decision III/10 on identification, monitoring and assessment,

Further recalling past practice of noting the reports of the Subsidiary Body on Scientific, Technical and Technological Advice,

1. *Takes note* of the report of the third meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, held in Montreal from 1 to 5 September 1997, contained in document UNEP/CBD/COP/4/2, bearing in mind that five of the seven recommendations - III/1 (inland water ecosystems); III/2 (marine and coastal biological diversity); III/3 (forest biological diversity); III/4 (agricultural biological diversity); and III/6 (clearing-house mechanism) - contain advice on matters that

have been considered under other items on the agenda of the present meeting;

2. *Takes note* that the recommendations made at the third meeting of the Subsidiary Body on Scientific, Technical and Technological Advice constitute major inputs into the thematic work under the Convention;

Indicators

3. *Endorses* recommendation III/5 of the Subsidiary Body on Scientific, Technical and Technological Advice [see p. 174], and *requests* the Executive Secretary to undertake the work outlined in its annex, in accordance with the guidance contained in the same recommendation, for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at its fourth meeting;

4. *Proposes* that further work on indicators by the Parties and by the Subsidiary Body on Scientific, Technical and Technological Advice should take account of, *inter alia*, further work by the Subsidiary Body on Scientific, Technical and Technological Advice on the development of the ecosystem approach;

Identification monitoring and assessment

5. *Welcomes* the contributions provided by the Diversitas working group of experts to the Executive Secretary, in its recommendations on scientific research that should be undertaken for the effective implementation of Articles 7, 8, 9, 10 and 14 of the Convention on Biological Diversity, as contained in document UNEP/CBD/COP/4/Inf.18 [see p. 148];

6. *Decides* to transmit those recommendations to the Subsidiary Body on Scientific, Technical and Technological Advice for further consideration and use and encourages the Subsidiary Body on Scientific, Technical and Technological Advice to further cooperate with DIVERSITAS and with other relevant international, regional and national organizations and institutions on such issues.

B. Ecosystem approach

The Conference of the Parties,

Recognizing that in several decisions adopted at the third meeting of the Conference of the Parties the ecosystem approach has been addressed

as a guiding principle, although the terminology used has varied, including: "ecosystem approach", "ecosystem process-oriented approach", "ecosystem management approach" and "ecosystem-based approach",

Acknowledging that, by paragraph 1 of its decision II/8, the ecosystem approach has been adopted as a framework for the analysis and implementation of the objectives of the Convention on Biological Diversity, and in the elaboration and implementation of the various thematic and cross-cutting work programmes under the Convention, as appropriate,

Acknowledging the need for a workable description and further elaboration of the ecosystem approach,

1. *Takes note* of the report of the workshop on the ecosystem approach, held in Lilongwe, Malawi, from 26 to 28 January 1998, as contained in document UNEP/CBD/COP/4/Inf.9 [see p. 138];
2. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to develop principles and other guidance on the ecosystem approach, taking into consideration, *inter alia*, the results of the Malawi workshop, and to report thereon to the Conference of the Parties at its fifth meeting.

C. Alien species that threaten ecosystems, habitats or species

The Conference of the Parties,

Noting the significant adverse ecological and economic effects of certain alien species on biological diversity and human health,

Recalling that the Subsidiary Body on Scientific, Technical and Technological Advice, at its second meeting, considered the development of an indicative framework of processes and categories of activities that are likely to have significant adverse impacts on biological diversity to be a priority,

Recalling paragraphs 9 and 10 of its decision III/9, on the implementation of Articles 6 and 8 of the Convention, which address alien species that threaten ecosystems, habitats or species,

Recalling recommendations III/1, III/2 and III/3 [see note on p. 178] of the Subsidiary Body on Scientific, Technical and Technological Advice, related to alien species as they affect inland water, marine and coastal, forest and agricultural biological diversity respectively in accor-

dance with decisions II/10, III/11, III/12 and III/13 of the Conference of the Parties,

Recognizing the particular endemic biological diversity of geographically and/or evolutionarily isolated ecosystems, such as small islands, and the particularly damaging impacts, in terms of biological-diversity loss, that species introduction can have on such ecosystems,

Noting the importance of taking a precautionary and ecosystem approach when dealing with issues related to alien species,

Noting the need to address the issue of alien species as an integrated component of the various sectoral and thematic items under the programme of work of the Conference of the Parties,

Recognizing that there is also a need for complementary and consolidated action on alien species,

1. *Decides* that alien species is a cross-cutting issue for implementation of many of the themes of the Convention;
2. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to develop guiding principles for the prevention, introduction and mitigation of impacts of alien species and to report on those principles and any related work programme to the Conference of the Parties at its fifth meeting;
3. *Invites* Parties to develop country-driven projects at national, regional, subregional and international levels to address the issue of alien species and *requests* the financial mechanism to provide adequate and timely support for those projects;
4. *Invites* the Parties to address the issue of alien species for the conservation and sustainable use of biological diversity and to incorporate such activities into their national strategies, programmes and action plans;
5. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to identify the priority work pertinent to the issue of alien species in geographically and evolutionarily isolated ecosystems and to report thereon to the Conference of the Parties at its fifth meeting;
6. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice, at its next meeting, to examine the Global Invasive Species Programme (GISP), with a view to considering concerted action and developing proposals for further action under the Convention on this issue.

D. Global Taxonomy Initiative

The Conference of the Parties

Noting decision III/10, supporting a Global Taxonomy Initiative, and the activities being supported by the financial mechanism on taxonomy,

Recognizing the need for taxonomic input in many activities aimed at the conservation and sustainable use of biological diversity and the lack of taxonomic capacity in a majority of countries,

Recalling that paragraph 3 of decision III/10, in which the Conference of the Parties endorsed the recommendation II/2 of the Subsidiary Body on Scientific, Technical and Technological Advice concerning capacity-building for taxonomy through a Global Taxonomy Initiative,

Taking into account the urgency for the availability of taxonomic information to countries of origin, and the need of developing countries to develop national collections and human and institutional capacities in taxonomy,

1. *Acknowledges* the work already under way by the financial mechanism in response to decision III/10 of the Conference of the Parties, and *requests* the Global Environment Facility to report on these experiences at the fifth meeting of the Conference of the Parties;
2. *Stresses* the urgent need for the further implementation of recommendation II/2 of the Subsidiary Body on Scientific, Technical and Technological Advice concerning capacity-building in all fields of taxonomy to assist in the implementation of the Convention, through the incorporation of targeted actions in its workplan, including promoting regional activities to set regional agendas;
3. *Endorses*, as initial advice, the Suggestions for Action in the annex to the present decision to develop and implement a Global Taxonomy Initiative, and *requests* the Subsidiary Body on Scientific, Technical and Technological Advice to examine and provide advice on the further advancement of a Global Taxonomy Initiative;
4. *Recognizes* that the implementation of a Global Taxonomy Initiative should occur on the basis of country-driven projects at the national, regional and subregional levels;

5. *Invites* the United Nations Environment Programme to assist in the global implementation of a Global Taxonomy Initiative, as offered by the Executive Director in his address to the Conference of the Parties at its fourth meeting;
6. *Encourages* Governments to make available appropriate resources to enhance the availability of taxonomic information;
7. *Encourages* Governments to develop bilateral and multilateral training and employment opportunities for taxonomists, particularly for those dealing with poorly known organisms;
8. *Stresses* the need to consider indigenous and traditional knowledge as an important existing information source that should be taken into account, and made available through appropriate mechanisms;
9. *Stresses* the urgent need for adequate financial resources to implement a Global Taxonomy Initiative and *requests* the institutional structure of the financial mechanism of the Convention to provide financial resources, particularly to assist in implementing, through country-driven activities within the context of the operational programmes of the Global Environment Facility, the Suggestions for Action annexed to the present decision.

Annex

SUGGESTIONS FOR ACTION

1. The Executive Secretary should, as a matter of urgency, seek means outside of core funding of the Convention, to appoint a Programme Officer with appropriate operational resources to have responsibility for the further development of a Global Taxonomy Initiative, through the network of existing global, regional and national relevant institutions and organizations. The officer should especially coordinate actions to meet the need, recognized by the meeting, for each country to conduct a national taxonomic needs assessment, and to link to national reporting under the Convention on Biological Diversity and immediately coordinate a global directory of taxonomic expertise and biological collections. This information resource should be made available in both electronic and paper form.

2. Parties and authorities responsible for museums and herbaria should invest, on a long-term basis, in the development of appropriate infrastructure for their national collections. As part of that investment, donors, both bilateral and multilateral, in their commitment to the conservation and sustainable use of biological diversity in countries where they provide investment support, should support infrastructural needs of collection-holding institutions.
3. Parties and international donors should encourage partnerships between institutions in developed and developing countries so as to promote scientific collaboration and infrastructure rationalization. Such collaboration should include the development of national, subregional, regional and global training initiatives. Taxonomic institutions in each nation, both individually and regionally, should develop national priorities in taxonomic training, infrastructure, new technology, capacity-building and market needs.
4. Parties and authorities should adopt internationally agreed levels of collection housing (climate control, fire protection systems, pest control, acceptable levels of workplace health and safety) that ensure protection of collections and the well-being of all people working on and accessing collections.
5. Parties and international donors should provide training programmes at different educational levels, relevant to the needs of individual countries, including vocational, technical and academic training. Parties should also recognize that ongoing employment for trainees is part of an effective training scheme.
6. Parties and authorities should utilize information systems to maximum effect in taxonomic institutions. In developing priority-setting criteria for information products, taxonomic institutions should consider the needs of the wide range of users of that information, including biological diversity managers. In particular, taxonomic information, literature and checklists should be put into electronic form.
7. Parties to the Convention on Biological Diversity should report on measures adopted to strengthen national capacity in taxonomy, to designate national reference centres, and to make information housed in collections available to countries of origin.
8. Institutions, supported by Parties and international donors, should coordinate their efforts to establish and maintain effective mechanisms for the stable naming of biological taxa.

9. Governments members of the Organization for Economic co-operation and Development (OECD) should endorse and support the recommendations from the OECD Megascience Forum's Biodiversity Informatics Subgroup, regarding the development of a Global Biodiversity Informatics Facility (GBIF) to allow people in all countries to share biological diversity information and to provide access to critical authority files.

Implementing the actions

10. The Executive Secretary should ensure that the clearing-house mechanism (in collaboration with the OECD Megascience Forum's Biodiversity Informatics Subgroup Initiative) develop protocols and strategies for coordinating access to and distribution of taxonomic information contained in collections. In addition, the clearing-house mechanism, through its national focal points, should establish and update directories of taxonomists and their research and identification expertise.

11. *In addition, Parties should:*

(a) Ensure that institutions responsible for biological diversity inventories and taxonomic activities are financially and administratively stable, so as to have potential for continued and growing training and employment opportunities;

(b) Assist institutions to establish consortia to conduct regional projects;

(c) Select or use centres of expertise at different geographical levels, capable of offering training programmes individually or in combination, where such centres include universities, museums, herbaria, botanical and zoological gardens, research institutes and international or regional organizations;

(d) Give special attention to international funding of fellowships for specialist training abroad or for attracting international experts to national or regional courses. Appropriate areas for funding should include conventional academic courses, expeditions, collaborative research projects, secondments, institutional partnerships, regional flora and fauna, internships and tutorial guidance;

(e) Provide programmes for re-training of qualified professionals moving into taxonomy-related fields;

(f) Adapt training methods to the particular technical or academic backgrounds and experience of candidates. Content of courses should re-

spond to external user demands and modern needs, taking into account cost-effectiveness in their delivery;

(g) Ensure training programmes address gaps in knowledge and the need for specialists in given taxonomic groups, and offer a comprehensive view of biological-diversity issues, including new scientific/technological approaches to taxonomy (e.g. molecular biology/informatics);

(h) Provide business management training, of the nature commonly offered to private-sector executives, for managers of biological-diversity institutions, as part of other efforts to strengthen those organizations;

(i) Develop and maintain a register of practising taxonomists, areas of expertise and description of collections through electronic and other means, which should be available on the Internet;

(j) Hold workshops to determine national taxonomic priorities, in the context of national biological-diversity studies and action plans. Once national priorities have been identified, support development of regional taxonomic priorities, including plans to database collections using mutually agreed software, quality control and core-data requirements.

DECISION

IV/2

REVIEW OF THE OPERATIONS OF THE CLEARING-HOUSE MECHANISM

The Conference of the Parties,

Noting that decisions I/3, II/3, II/4, II/7, II/8, II/10, II/11, II/14, II/16, II/17, III/4, III/5, III/9, III/10, III/11, III/15, III/17, III/18 and III/19 of the Conference of the Parties have clearly stressed and broadened the roles of the clearing-house mechanism as a key instrument to promote and facilitate the implementation of the objectives of the Convention,

Recalling that four clearing-house regional workshops were held prior to the fourth meeting of the Conference of the Parties and drawing upon those experiences,

Recognizing the urgent need for the private sector to be involved in clearing-house mechanism activities to ensure that the facilitation and promotion of the transfer of technology meet the needs of Contracting Parties,

Acknowledging the need to establish a reliable network of existing and evolving biodiversity institutions and initiatives which can serve the needs and demands of Parties, not only during the pilot phase but also in the long term,

1. *Requests* all Governments and bilateral and multilateral funding institutions to provide funding for the development and implementation of the clearing-house mechanism, including support for national as well as regional and subregional clearing-house mechanism activities;
2. *Recommends* that Parties include in their national reports the lessons learned through activities undertaken to implement their national clearing-house mechanisms, as appropriate;
3. *Recommends* that each Party organize an appropriate national clearing-house mechanism steering committee or working group composed of multisectoral and interdisciplinary representatives, to achieve broad participation of different stakeholders in the implementation process of the clearing-house mechanism;
4. *Invites* the Parties and other partners to use the clearing-house mechanism logo as a unifying element creating a clearing-house mechanism identity;
5. *Recommends* that, in building up the content of information in the clearing-house mechanism either at the secretariat or other level, the following major content elements, among others, be used:
 - (a) *National, subregional and regional levels*: country profiles, biodiversity strategy and action plans, appropriate legislation, scientific and technological information, financial sources;
 - (b) *Secretariat level*: Convention on Biological Diversity and its implementation, national focal points, international themes, financial sources;
6. *Requests* those Parties with access to the Internet to link their national clearing-house mechanism home page to the Secretariat's clearing-house mechanism home page, where possible;

7. *Recommends* that the development of a common format be investigated, under which the orderly sequence of the articles of the Convention should be followed; alternatively, the sequence of the three objectives of the Convention could be considered as the organizing format for information in the clearing-house mechanism;

8. *Agrees* that the clearing-house mechanism should act as the clearing-house mechanism for future programmes and activities under the Convention on Biological Diversity, subject to budgetary considerations;

9. *Requests* the Global Environmental Facility:

(a) To be a catalyst in the development and implementation of the clearing-house mechanism, so as to assist it to fulfil its role in promoting and facilitating the implementation of the Convention, in a participatory manner and fully incorporating available modern information and communication tools;

(b) To support capacity-building activities and country-driven pilot projects focused on priority areas, as critical components in the implementation of the clearing-house mechanism at the national, subregional, biogeographic, and regional levels, both during and after the pilot phase;

(c) To provide by all possible means, as appropriate, increased support for country-driven projects to establish and strengthen biodiversity information systems such as, *inter alia*, training, technology and processes related to the collection, organization, maintenance and updating of data and information and its communication to users through the clearing-house mechanism;

(d) To evaluate at the end of the clearing-house mechanism pilot phase the experience of the Global Environment Facility's support for developing countries' activities, to consider additional efforts to meet the increasing interest in taking part in and having access to the clearing-house mechanism, including in regional networking, and to report to the Executive Secretary prior to the next meeting of the Subsidiary Body on Scientific, Technical and Technological Advice;

10. *Instructs* the Executive Secretary:

(a) To put in place a list server with all officially designated clearing-house mechanism national focal points and other partners for the purpose of disseminating information on new and recent developments regarding the clearing-house mechanism, at either the national, regional or international level;

(b) To act as a focal point, during and after the pilot phase, to encourage the development of a network of partners, including indigenous and local communities, and to facilitate these in developing specific training for the effective participation of users in the clearing-house network;

(c) To ensure that the clearing-house mechanism should be continuously assisted in its functioning by the Informal Advisory Committee which is to provide guidance to the Executive Secretary during and after the pilot phase, and to play a full role in the further development of the clearing-house mechanism;

(d) To provide encouragement for and facilitate the coordination of biodiversity-related networks, activities and focal points that may constitute the clearing-house mechanism, to encourage their linkages within the clearing-house mechanism network and to make available information arising from the Secretariat's own functions as outlined in Article 24 of the Convention;

(e) To assist in ensuring that the implementation of Convention Articles 16 (Transfer of and Access to Technology), 17 (Information Exchange) and 18 (Scientific and Technical co-operation) is facilitated by the clearing-house mechanism;

(f) To produce an informative and widely disseminated clearing-house mechanism brochure and newsletter to increase awareness of the activities of the clearing-house mechanism;

(g) To improve synergy in regard to information exchange with other biodiversity-related conventions and ongoing international or supranational information initiatives, and to contribute to the harmonization of the information management of other biodiversity-related treaties and to continue to discuss the possibilities of joint and harmonized approaches with the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification;

(h) To facilitate support to those Parties without adequate Internet access, preparing and disseminating to them updated information arising from the Secretariat's own functions as outlined in Article 24 of the Convention on, *inter alia*, CD-ROM or diskettes, either periodically or as required, and facilitating the dissemination of appropriate information to those Parties;

(i) To collaborate, with partners, on the provision of advice to Parties and others on, *inter alia*, the necessary layout and system specifications of the clearing-house mechanism;

(j) To produce a tool-kit prototype containing necessary information for national focal points to build their national clearing-house mechanisms, drawing upon the recommendations of the regional workshops and following an informal assessment of national practices in collaboration with the Informal Advisory Committee on the clearing-house mechanism;

(k) To undertake an independent review of the pilot phase of the clearing-house mechanism, starting at the end of 1998, to be presented to the Subsidiary Body on Scientific, Technical and Technological Advice for its consideration together with a longer-term programme of work for the clearing-house mechanism. The following elements for evaluation of the pilot phase, among others, are recommended to be used:

- (i) Number of national focal points fully and effectively connected;
- (ii) Number and relevance of thematic networks and activities connected;
- (iii) Amount of information transferred from participating nodes;
- (iv) Number and effectiveness of training events;
- (v) Effectiveness of guidelines in achieving their aims;
- (vi) Whether the clearing-house mechanism is being effectively used by Parties to further the aims of the Convention;
- (vii) Number of nodes supplying relevant information such as national reports, legislation and policies;
- (viii) Use made of list servers;
- (ix) Financial support, other resources, and time allocated for the implementation of the clearing-house mechanism, in particular by the Secretariat and the clearing-house mechanism national focal points.

DECISION

IV/3

ISSUES RELATED TO BIOSAFETY

The Conference of the Parties,

Recalling its decisions II/5 and III/20 on issues related to biosafety,

Recalling also part A of the annex to its decision III/24, and table 1 of its decision IV/17, which contain the budgets of the Trust Fund for the Convention on Biological Diversity for the bienniums 1997-1998 and 1999-2000, respectively,

Having considered the report of the fourth meeting of the Open-ended Ad Hoc Working Group on Biosafety, which met in Montreal, from 5 to 13 February 1998,

Recalling the recommendations of the fourth meeting of the Open-ended Ad Hoc Working Group on Biosafety that:

(a) In order to complete its work, the Open-ended Working Group on Biosafety should hold two further meetings, with a duration of two weeks and one week, respectively;

(b) The first of those two meetings should be held in Montreal, from 17 to 28 August 1998; and

(c) In the event of it not being possible to hold in 1998 the final meeting of the Open-ended Ad Hoc Working Group on Biosafety, followed by a meeting of the Conference of the Parties to adopt the Protocol, these meetings should be convened early in 1999 but, in any event, no later than February 1999,

1. *Accepts* the recommendations of the Open-ended Ad Hoc Working Group on Biosafety;

2. *Decides*:

(a) That the bureau of the Open-ended Ad Hoc Working Group on Biosafety shall be composed of representatives of Argentina, Bahamas,

Denmark, Ethiopia, Hungary, India, Mauritania, New Zealand, Russian Federation and Sri Lanka;

(b) That the members of the bureau shall remain in office, under the chairmanship of Mr. Veit Koester (Denmark) until the adoption of the Protocol on Biosafety;

3. *Decides* that the final meeting of the Open-ended Ad Hoc Working Group on Biosafety and an extraordinary meeting of the Conference of the Parties will be held in February 1999. These meetings shall be held at the seat of the Secretariat of the Convention on Biological Diversity in Montreal, Canada, unless an offer to host these meetings is received by the Executive Secretary no later than 1 August 1998;

4. *Decides*, in accordance with rule 13 of the rules of procedure, that the agenda of the extraordinary meeting will address all matters relating to:

(a) Adoption of the Protocol on Biosafety; and

(b) Preparations for the first Meeting of the Parties to the Protocol with regard to, *inter alia*, interim arrangements, taking into account the budgetary provision made for this purpose in accordance with decision IV/17 on the budget of the Trust Fund for the Convention;

5. *Decides* that written submissions by Governments of provisions to be included in the Protocol must be received by the Executive Secretary by 1 July 1998, in accordance with the six-month rule for consideration of the draft Protocol under Article 28, paragraph 3, of the Convention, thereby enabling the Open-ended Ad hoc Working Group on Biosafety to consider those proposals during its meeting in August 1998;

6. *Decides* that the Protocol shall be opened for signature at the Headquarters of the United Nations in New York no later than three months from the date of its adoption by the Conference of the Parties;

7. *Calls on* Parties to consider providing voluntary contributions to facilitate participation in the above meetings by developing country Parties, in particular least developed States and small island developing countries, and Parties with economies in transition.

DECISION

IV/4

STATUS AND TRENDS OF THE BIOLOGICAL DIVERSITY OF INLAND WATER ECOSYSTEMS AND OPTIONS FOR CONSERVATION AND SUSTAINABLE USE*The Conference of the Parties*

1. *Adopts*, on the basis of modified recommendation III/1 of the Subsidiary Body on Scientific, Technical and Technological Advice as contained in document UNEP/CBD/COP/4/2, annex I to the present decision as a work programme under the Convention on Biological Diversity, on the biological diversity of inland water ecosystems and the associated matters of identification and monitoring, assessment methodology and taxonomy;
2. *Welcomes* the recommendations on strategic approaches to freshwater management of the Commission on Sustainable Development at its sixth session and *urges* Parties and Governments to:
 - (a) Include information on the biological diversity of inland waters when providing voluntary national communications and reports on actions further to the recommendations of the Commission on Sustainable Development; and
 - (b) Consider inland water biological diversity in the agenda of subsequent meetings held to further the recommendations of the Commission on Sustainable Development.
3. *Urges* Parties and Governments to include inland water biological diversity considerations in their participation and collaboration with organisations, institutions and conventions affecting or working with inland water resources, consistent with the guidance provided to the Conference of the Parties and the Executive Secretary in part A "General", paragraphs 1-3 of annex I to the present decision;
4. *Encourages* the implementation of the Joint Work Plan with the Convention on Wetlands in document UNEP/CBD/COP/4/Inf.8 [see p. 116],

as recommended by the Conference of the Parties in its decision III/21 and by the Subsidiary Body on Scientific, Technical and Technological Advice in recommendation III/1, part A, section I, paragraph (b) [see p. 178] and endorsed by the Conference of the Parties at its fourth meeting as a framework for enhanced co-operation between the Conventions through decision IV/15;

5. *Urges* Parties and Governments to integrate those elements highlighted by the Subsidiary Body on Scientific, Technical and Technological Advice as important for Parties, contained in annex I, sections A, B, C and D, to the present decision (respectively concerning inland water ecosystems, identification and monitoring, methodologies for assessment and taxonomy), as appropriate, into their national and sectoral plans and to implement these as soon as possible;

6. Recognizing that Global Environment Facility projects are country-driven, *requests* the Financial Mechanism, within the context of implementing national biological diversity strategies and action plans, to provide adequate and timely support to eligible projects which help Parties to develop and implement national, sectoral and cross-sectoral plans for the conservation and sustainable use of biological diversity of inland water ecosystems;

7. *Urges* Parties when requesting support, for projects related to inland water ecosystems, from the Financial Mechanism that priority be given to:

(a) Identifying inland water ecosystems in accordance with Article 7 and Annex I to the Convention, taking into account the criteria for Wetlands of International Importance as adopted under the Convention on Wetlands;

(b) Preparing and implementing integrated watershed, catchment and river basin management plans based on an ecosystem approach including transboundary watersheds, catchments and river basins, and those which include ecosystems identified under subparagraph (a) above;

(c) Investigating where appropriate, the processes contributing to the loss of biological diversity of inland water ecosystems, through targeted research, such as: investigations into the impacts of harmful substances, alien invasive species and saltwater intrusions; and the identification of measures needed to address these issues where they constitute threats to inland water ecosystem biological diversity;

8. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to:

(a) Implement the programme of work respecting the relevant tasks described in annexes I and II to the present decision, taking into account the decisions adopted at the fourth meeting of the Conference of the Parties and the schedule as contained in annex II to the present decision, subject to amending the time schedule so as to immediately commence development of regional guidelines for rapid assessment for small island States, and to report on progress to the Conference of the Parties at its fifth meeting;

(b) Incorporate, as appropriate, the outcome of the sixth session of the Commission on Sustainable Development on strategic approaches to freshwater management into its work plan and report back thereon to the Conference of the Parties at its fifth meeting;

(c) Continue to take note of the approved work programme and results, and pursue opportunities for co-operation with, the Scientific and Technical Review Panel of the Convention on Wetlands.

9. *Invites* all relevant organizations to support efforts by Parties and Governments to implement their national and sectoral plans for the conservation and sustainable use of the biological diversity of inland water ecosystems;

10. *Requests* the Executive Secretary to facilitate the programme of work outlined in the present decision, including in its annexes I and II; including implementation of the tasks outlined for the Executive Secretary in paragraphs 1, 2 and 4 of annex I to the present decision, and additionally, in particular, to begin compiling information and case studies for use by the Subsidiary Body on Scientific, Technical and Technological Advice in addressing paragraphs 8 (a) and (c) of annex I to the present decision;

11. *Notes* that, while the implementation of the programme of work is subject to the availability of financial resources, particular attention should be given to early progress in the development of rapid assessment methodologies especially related to small island States.

Annex I

**BIOLOGICAL DIVERSITY OF INLAND WATER
ECOSYSTEMS***The Conference of the Parties,*

Recalling that decision III/13 of the Conference of the Parties requested the Subsidiary Body on Scientific, Technical and Technological Advice to provide the fourth meeting of the Conference of the Parties with scientific, technical and technological advice on the status and trends of biological diversity in inland water ecosystems and the identification of options for conservation and sustainable use,

Having examined the Notes prepared by the Executive Secretary (UNEP/CBD/COP/4/2, UNEP/CBD/COP/4/4 and UNEP/CBD/COP/4/Inf.8); and the other information provided to the fourth meeting of the Conference of the Parties,

Recognizing the importance of inland water ecosystems for global biological diversity and human welfare, and also their vulnerability to human actions,

Recognizing the importance of adopting an ecosystem approach that integrates the conservation and sustainable use of biological diversity and the fair and equitable sharing of benefits of inland waters,

Recognizing the link between human communities, inland waters and biological diversity of inland waters and the importance of local community participation and awareness in achieving conservation and sustainable use of inland water biological diversity, and

Recognizing the crucial part played by technical and scientific cooperation in all aspects of biological diversity, including the transfer of technology, and recognizing also the necessity of capacity-building to enable Parties to carry out identification, monitoring and assessment of biological diversity as required by Article 7 of the Convention,

Adopts the following programme of work:

A. Assessment of the status and trends of the biological diversity of inland water ecosystems and identification of options for conservation and sustainable use

1. *General*

1. The Executive Secretary should continue and further develop the collaboration with organizations, institutions, and conventions working with research, management and conservation of inland water biological diversity. These include (but are not limited to) the Convention on Wetlands, FAO, ICLARM, Global Water Partnership, World Water Council, UNDP, UNEP, Diversitas, Wetlands International, IUCN, World Bank, Bonn Convention, *et al.*

2. The Executive Secretary of this Convention and the Secretary-General of the Convention on Wetlands are encouraged to elaborate a work plan that ensures co-operation, and avoids overlap between the two conventions, noting the Memorandum of Co-operation with the Convention on Wetlands, and decision III/21 of the Conference of the Parties, whereby the Convention on Wetlands would be a lead partner in inland water ecosystems.

3. The Conference of the Parties wishes to continue the close co-operation with the Commission on Sustainable Development in its development of the Strategic Approach to Freshwater Management to ensure that biological diversity issues are considered in this process.

4. The Conference of the Parties requests the Executive Secretary to develop a roster of experts on the conservation and sustainable use of the biological diversity of inland waters, and urge Governments to nominate experts to the roster, noting also that the Ramsar Bureau is establishing a similar list of experts.

5. The clearing-house mechanism should be used to promote and facilitate the exchange of information and the transfer of technology relevant to the conservation and sustainable use of inland water biological diversity.

6. Recognizing the immediate threats to the inland water ecosystems and associated biological diversity of small island States, the Conference of the Parties requests the Executive Secretary and the Subsidiary Body on Scientific, Technical and Technological Advice to pay special atten-

tion to early co-operation with the small island States in the development of rapid-assessment methodologies.

7. Recognizing that in the territories of certain States there are inland water ecosystems suffering from ecological disaster, the Conference of the Parties requests the Executive Secretary and the Subsidiary Body on Scientific, Technical and Technological Advice to pay special attention to early co-operation in assessing such disasters and mitigating activities and in developing rapid assessment methodologies within these States.

2. *Work plan of the Subsidiary Body on Scientific, Technical and Technological Advice*

8. A work plan for the Subsidiary Body on Scientific, Technical and Technological Advice should be developed in co-operation with relevant organizations, Governments and Parties that should build upon the ongoing efforts in inland water ecosystem conservation. The work plan should include:

Status and trends:

(a) Using existing information and drawing upon relevant organizations and experts, develop an improved picture of inland water biological diversity, its uses and its threats, around the world. The output should identify areas where the lack of information severely limits the quality of assessments. This will help to focus attention on these areas;

(b) Developing and disseminating regional guidelines for rapid assessment of inland water biological diversity for different types of inland water ecosystems;

Conservation and sustainable use:

(c) Compiling case studies of watershed, catchment and river basin management experiences and best practices, to synthesize the lessons that emerge from these studies, and to disseminate information through the clearing-house and other appropriate mechanisms. Areas where the Subsidiary Body on Scientific, Technical and Technological Advice should concentrate its efforts include:

- (i) Examples of watershed management that incorporate inland water biological diversity with special reference to examples that use the ecosystem-based approach to meet water management goals;

- (ii) Examples of water resource development projects (water supply and sanitation, irrigation, hydropower, flood control, navigation, groundwater extraction) that incorporate biological diversity considerations;
 - (iii) Impact assessment and other methodologies that address inland water biological diversity issues in an adaptive management framework;
 - (iv) Case studies of successful remedial action, including restoration and rehabilitation of degraded inland water ecosystems [see p. 129];
 - (v) Examples of equitable sharing of benefits derived from use of inland water biological diversity;
 - (vi) Examples of the impacts of invasive alien species and of programmes used to control their introduction and mitigate negative consequences on inland water ecosystems especially at the watershed, catchment and river basin level;
 - (vii) Use of protected areas and their management strategies for conservation and sustainable use of inland water ecosystems;
- (d) Developing methods and techniques for the valuation of goods and services of inland water ecosystems, incentives and policy reform, and the understanding of ecosystem function.

3. *Recommendations to Parties*

9. The Conference of the Parties recommends that Parties:

(a) *Watershed management:*

- (i) Encourage the adoption of integrated land and watershed management approaches based on watersheds, catchments and river basins for the protection, use, planning and management of inland water ecosystems;
- (ii) Encourage the adoption of integrated watershed, catchment and river basin management strategies to maintain, restore or improve the quality and supply of inland water resources and the economic, social, hydrological, biological diversity and other functions and values of inland water ecosystems;

(b) *Appropriate technologies:*

- (i) Encourage the use of low-cost (appropriate) technology, non-structural and innovative approaches to meet watershed management goals, such as using wetlands to improve water quality, using forests and wetlands to recharge groundwater and maintain the hydrological cycle, to protect water supplies and using natural floodplains to prevent flood damage, and to use indigenous species for aquaculture;
- (ii) Encourage the development of preventative strategies such as cleaner production, continual environmental improvement, corporate environmental reporting, product stewardship and environmentally sound technologies to avoid degradation and promote restoration of inland water ecosystems;

(c) *Technology transfer:* Emphasize more effective conservation and efficiency in water use, together with non-engineering solutions. Environmentally appropriate technologies should be identified, such as low-cost sewage treatment and recycling of industrial water to assist in the conservation and sustainable use of inland waters;

(d) *Research:* Encourage research on the application of the ecosystem approach;

(e) *Monitoring and assessment:*

- (i) Identify the most cost-effective approaches and methods to describe the status, trends and threats of inland waters and indicate their condition in functional as well as species terms;
- (ii) Promote the development of criteria and indicators for the evaluation of impact on inland water ecosystems from both physical infrastructure projects and watershed activities, including, *inter alia*, agriculture, forestry, mining and physical alteration, taking into consideration the natural variability of water conditions;
- (iii) Initiate studies on ecological functions and services to improve understanding of effects of exploitation on non-target species;
- (iv) Undertake assessments in such inland water ecosystems which may be regarded as important in accordance with the terms of Annex I of the Convention. Furthermore Parties should undertake assessments of threatened species and conduct inventories and impact assessments of alien species within their inland water ecosystems [see p. 178];

- (f) *Sustainable use:*
 - (i) Encourage valuation of inland water biological diversity;
 - (ii) Produce and promote guidance on the sustainable use of inland waters to maintain biological diversity;
 - (iii) Support the conservation and sustainable use of inland water biological diversity through the establishment and implementation of appropriate legal, administrative and incentive measures;
 - (iv) Consider the use and/or establishment of gene banks for fish and other species;
- (g) *Environmental impact assessments:*
 - (i) Encourage environmental impact assessments (EIAs) of water development projects, aquaculture, and watershed activities including agriculture, forestry, and mining. EIAs need to gather adequate biological data to document effects on biological diversity, provide predictions on the effects of alternative project scenarios on ecosystems and consider the valuation of the goods and services of potentially affected ecosystems, and test predictions with well-designed sampling schemes that can adequately distinguish the effects of anthropogenic activities from natural processes;
 - (ii) Encourage EIAs which assess the impacts, not only of individual proposed projects, but also the cumulative effects of existing and proposed developments on the watershed, catchment or river basin;
- (h) *Alien species, genotypes and genetically modified organisms.* Raise awareness of the possible problems and costs associated with the deliberate or accidental introduction of alien species, genotypes and genetically modified organisms which adversely affect aquatic biological diversity, bearing in mind the activities relating to the development of a Protocol on Biosafety under the Convention. Policies and guidelines should be developed to prevent and control such introductions, and to rehabilitate sites where possible. This work should be coordinated with the cross-cutting work being addressed in the decision regarding the work of the Subsidiary Body on Scientific, Technical and Technological Advice on alien species (decision IV/1 C) [see p. 178];
 - (i) *Education and public awareness.* Strengthen education and awareness programmes, recognizing that responsible environmental stewardship requires an informed public. Participatory-based management ap-

proaches are most effective when people are well informed of both the economic and environmental consequences of management. Inland waters provide both a challenge and an opportunity to educate the public and policy makers about the need to take an ecosystem-based approach to management. Environmental education should be built into school curricula and should emphasize integration using inland waters as a model subject to teach problem-solving;

(j) *Collaboration with broader water resource community.* Promote effective collaboration among ecologists, planners, engineers, and economists (both within countries and among countries) in the planning and implementation of development projects to better integrate inland water biological diversity with water resource development when considering projects likely to have an adverse impact on inland water ecosystems;

(k) *Transboundary co-operation:* Develop and maintain effective co-operation for sustainable management of transboundary watersheds, catchments, river basins and migratory species through appropriate mechanisms such as bilateral and multilateral agreements;

(l) *Involvement of local and indigenous communities:*

(i) Involve, as far as possible and appropriate, local and indigenous communities in the development of management plans and in projects that may affect inland water biological diversity;

(ii) Implement Article 8(j) as related to inland water biological diversity;

(iii) Encourage the involvement and participation of affected parties including end-users and communities in policy-making, planning and implementation;

(m) *Economic and legal instruments:*

(i) Review the range and effectiveness of national incentives, subsidies, regulations, and other relevant financial mechanisms which have the ability to affect inland water ecosystems, whether adversely or beneficially;

(ii) Redirect financial support measures which run counter to the objectives of the Convention regarding the biological diversity of inland waters;

(iii) Implement targeted incentive and regulatory measures that have positive impacts on the biological diversity of inland waters;

- (iv) Develop the policy research capacity needed to inform the decision-making process in a multi-disciplinary and sectorally integrated manner.
- (v) At appropriate levels (regional, national, subnational and local), encourage the identification of stressed rivers, the allocation and reservation of water for ecosystem maintenance, and the maintenance of environmental flows as an integral component of appropriate legal, administrative and economic mechanisms;

4. *Financing*

10. Guidance should be provided to the Global Environment Facility regarding the importance of projects concerning inland water biological diversity. The GEF should be encouraged to consider the importance of inland water biological diversity in its other focal areas and should provide necessary funding for inland water biological diversity projects.

11. Ways should be considered for mobilizing financial resources from other sources.

B. Provision of scientific advice and further guidance to assist in the national elaboration of Annex I of the Convention (as pertaining to inland water ecosystems)

12. The Conference of the Parties advises Parties to prepare indicative lists of inland water ecosystems, using the criteria set out in Annex I of the Convention. The Conference of the Parties requests the Executive Secretary to work closely with the Ramsar Bureau and further direct the Subsidiary Body on Scientific, Technical and Technological Advice to work jointly with the Scientific and Technical Review Panel of the Convention on Wetlands to achieve desirable convergence between approaches on criteria and classification of inland water ecosystems between the two Conventions.

13. Parties should take note of the work of the IUCN as well as its recommendations in the ongoing review and application of criteria for the assessment of threatened species and populations, including the further development of such criteria for application at the regional and national levels.

C. Review of methodologies for assessment of biological diversity (as pertaining to inland water ecosystems)

14. Parties are urged to adopt an integrated approach in their assessment, management and where possible remedial action of inland water ecosystems, including associated terrestrial and inshore marine ecosystems. Assessments should involve all stakeholders, should be cross-sectoral and should make full use of indigenous knowledge.

15. Suitable organisms should be identified as being particularly important in the assessment of inland water ecosystems. Ideally, such groups should meet the following criteria:

(a) The group should contain a reasonable number of species with varied ecological requirements;

(b) The taxonomy of the group should be reasonably well understood;

(c) The species should be easy to identify;

(d) The group should be easy to sample or observe so that density - absolute or as indices - can be assessed, used objectively and treated statistically;

(e) The group should serve as indicators of overall ecosystem health or indicators of development of a key threat to ecosystem health;

16. In view of the great economic importance of some groups (e.g. inland water fish species), and of the large gaps in taxonomic knowledge for many species, the Conference of the Parties considers this as a specific focus of the capacity-building in taxonomy recommended by the Subsidiary Body on Scientific, Technical and Technological Advice in its recommendation II/2 and endorsed by the Conference of the Parties in decision III/10.

17. The Conference of the Parties advises Parties and relevant international organizations that issues of biological diversity and subsistence use of fisheries should be more fully addressed in fisheries reporting as regards biological diversity and in fisheries management. In particular species composition of total catch should be reported and the contribution that indigenous species make to capture fisheries should be reported separately.

18. The transboundary nature of many inland water ecosystems should be fully taken into account in assessments, and it may be appropriate for

relevant regional and international bodies to contribute to such assessments.

19. In accordance with recommendation II/1 of the Subsidiary Body on Scientific, Technical and Technological Advice, endorsed by the Conference of the Parties in decision III/10, assessments should be simple, inexpensive, rapid and easy to use. Such rapid assessment programmes will never replace thorough inventories. The Conference of the Parties takes note of the need to evaluate specific rapid assessment programmes for inland water ecosystems currently under development.

20. Assessments should be carried out with a view to implementing other articles of the Convention and, in particular, to addressing the threats to inland water ecosystems within an appropriate framework such as that included in paragraphs 39-41 of document UNEP/CBD/COP/3/12 [see p. 168]. Of particular importance is the undertaking of environmental impact assessments on biological diversity of development projects involving inland water ecosystems.

D. The urgency of needed action on taxonomy

21. The Executive Secretary is requested to take decisive action to advance the Global Taxonomy Initiative as detailed in decisions III/10 and IV/1D, which should be implemented as soon as possible.

Annex II

POSSIBLE TIME-FRAME OF A WORK PROGRAMME PERTAINING TO SBSTTA ACTIVITIES

Implication of the outcome of the sixth session of the Commission on Sustainable Development (CSD)

<i>Activities</i>	<i>Year</i>	<i>COP</i>	<i>SBSTTA</i>	<i>Secretariat</i>	<i>Other</i>
Integration of the outcome of the sixth session of the Commission on Sustainable Development (CSD6)	1998	Consideration of the outcome of the CSD6	Consideration of the follow-up of the CSD6 and make recommendation to the COP		
	1999	Consideration of the recommendation of the Subsidiary Body on Scientific, Technical and Technological Advice	Possible follow-up activities	Possible follow-up activities	

Annex II (continued)

Status and trends	Activities	Year	COP	SBSTTA	Secretariat	Other
Using existing information and drawing upon relevant organizations and experts, develop an improved picture of inland water biological diversity, its uses and the threats to it, around the world. Identification of gap.		1998		Consideration of ways and means for the activity	Preparation of proposal for the ways and means of the assessment	Establishing network of experts
		1998-2002		Carrying out the activity	Assist the SBSTTA in carrying out the activity	Possible regional workshops
		2002		Consideration of the outcome and make recommendation to the COP		
		2003	Consideration of the recommendation of the SBSTTA			

Annex II (continued)

<i>Activities</i>	<i>Year</i>	<i>COP</i>	<i>SBSTTA</i>	<i>Secretariat</i>	<i>Other</i>
Develop regional guidelines for rapid assessment	2002		Consideration of ways and means for the activity	Preparation of proposal for the ways and means for the development of regional guidelines	
	2002-2004		Development of regional guidelines	Assist the SBSTTA in the development of regional guidelines	Possible regional workshops
	2004		Consideration of the regional guidelines and recommendation to the COP		
	2005	Consideration of the SBSTTA recommendation			

Annex II (continued)

Conservation and sustainable use	Year	COP	SBSTTA	Secretariat	Other
Activities					
Compilation of case studies on conservation and sustainable use	1998-2002		Consideration of case studies and make recommendation	Compilation of case studies and make synthesis	Disseminate through the clearing-house mechanism
	2002				
	2003	Consideration of the SBSTTA recommendation			
	2003-		Activities may be continued		

Annex II (continued)

Conservation and sustainable use

<i>Activities</i>	<i>Year</i>	<i>COP</i>	<i>SBSTTA</i>	<i>Secretariat</i>	<i>Other</i>
Development of methods and techniques for the valuation of goods and services of inland water ecosystems, incentives and policy reforms and understanding of ecosystem function	2002		Consideration of ways and means for the activity	Preparation of proposal for the development of methods and techniques for the proposed topics	
	2002-2005		Development of methods and technique for the proposed topics	Assist the SBSTTA in the activity	Expert meetings/Liaison group meetings
	2005		Consideration of the methods and techniques for the proposed topics and make recommendation to the COP		
	2006		Consideration of the SBSTTA recommendation		

Annex II (continued)

The national elaboration of Annex I of the Convention on Biological Diversity

Activities	Year	COP	SBSTTA	Secretariat	Other
Work closely with the Convention on Wetlands to achieve desirable convergence between approaches on criteria and classification of inland water ecosystems between the two Conventions	1998-2001		Work closely with the Scientific and Technical Review Panel of the Convention on Wetlands	Work closely with the Bureau of the Convention on Wetlands	
	2001		Consideration of the outcome and make report to the Conference of the Parties		
	2002		Consideration of the report of the Subsidiary Body on Scientific, Technical and Technological Advice		
Urgency of needed action on taxonomy					
Global Taxonomy Initiative	1998-2001				Regional workshops

Budget implication:

Studies for assessments: US\$ 300,000-500,000 per study
 Scientific/technical meetings: US\$ 100,000-300,000 per meeting

The Secretariat will require a Programme Officer at P-4 level, specialized in the biological diversity of inland waters. The Secretariat will benefit from the services of a Junior Professional Officer (P-2) for this programme of work. However, as Junior Professional Officers are seconded by Governments, there will be no budget implications in this regard.

DECISION

IV/5

**CONSERVATION AND SUSTAINABLE USE OF
MARINE AND COASTAL BIOLOGICAL DIVERSITY,
INCLUDING A PROGRAMME OF WORK**

The Conference of the Parties,

**I. PROGRAMME OF WORK ARISING FROM DECISION
II/10 (JAKARTA MANDATE ON MARINE AND
COASTAL BIOLOGICAL DIVERSITY)**

Reaffirming its decision II/10 on the conservation and sustainable use of marine and coastal biological diversity,

Having considered recommendation III/2 of its Subsidiary Body on Scientific, Technical and Technological Advice,

1. *Adopts* the programme of work on marine and coastal biological diversity, as contained in the annex to the present decision;
2. *Urges* Parties, countries, relevant organizations and donor agencies to contribute to the implementation of specific elements of the programme of work;
3. *Urges* Parties, when requesting for assistance through the financial mechanism of the Convention, to propose projects which, while being fully consistent with previous guidance of the Conferences of the Parties, promote the implementation of the programme of work;
4. *Urges* the Executive Secretary to cooperate with the Convention on Wetlands of International Importance, especially as Waterfowl Habitat, where appropriate, in relation to the implementation of the joint work plan having regard to linkages with the programme of work on inland water biological diversity adopted by decision IV/4;

II. CORAL REEFS

Being deeply concerned at the recent extensive and severe coral bleaching, such as that reported by the African countries, caused by abnormally high water temperatures experienced since January 1998,

Recognizing the potentially severe loss of biological diversity and consequent socio-economic impacts, and

Noting this occurrence as a possible consequence of global warming and in light of the precautionary approach,

1. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to make an analysis of this phenomenon and provide relevant information to the fifth meeting of the Conference of the Parties for its consideration;
2. *Instructs* the Executive Secretary to express its concern to the Executive Secretary of the United Nations Framework Convention on Climate Change and the Secretary-General of the Convention on Wetlands and convey it to the conferences of the Parties to the United Nations Framework Convention on Climate Change and the Convention on Wetlands at their next meetings;
3. *Invites* the United Nations Framework Convention on Climate Change to urgently address this issue in its deliberations; and
4. *Urges* Parties, with reference to programme element 1.3 (c) of the programme of work, to take appropriate actions to mitigate impacts upon marine and coastal biological diversity and consequent socio-economic effects;

III. SMALL ISLAND DEVELOPING STATES

Recognizing the uniqueness and extreme fragility of marine and coastal biological diversity of small island developing States (SIDS), the disproportionate responsibility facing small island developing States in the conservation of these biological resources, and the limited capacity of small island developing States to implement the Jakarta Mandate on Marine and Coastal Biological Diversity,

Strongly recommends to Parties, countries, relevant organizations and donor agencies that the special needs and considerations of small is-

land developing States be a focus for implementing each of the elements of the programme of work, as appropriate.

Annex

PROGRAMME OF WORK ON MARINE AND COASTAL BIOLOGICAL DIVERSITY

A. Introduction

1. The aim of this programme of work is to assist the implementation of the Jakarta Mandate on Marine and Coastal Biological Diversity at the national, regional and global levels. It identifies key operational objectives and priority activities within the five key programme elements: integrated marine and coastal area management, marine and coastal living resources, marine and coastal protected areas, mariculture and alien species and genotypes. It also provides a general programme element to encompass the coordination role of the Secretariat, the collaborative linkages required and the effective use of experts.

B. Basic principles

1. *Ecosystem approach*

2. The ecosystem approach should be promoted at global, regional, national and local levels taking into account the report of the Malawi workshop (document UNEP/CBD/COP/4/Inf.9) [see p. 138] and in accordance with decision IV/1B.

3. Protected areas should be integrated into wider strategies for preventing adverse effects to marine and coastal ecosystems from external activities and take into consideration, *inter alia*, the provisions of Article 8 of the Convention.

2. *Precautionary approach*

4. The precautionary approach, as set out in decision II/10, annex II, paragraph 3 (a), should be used as a guidance for all activities affecting

marine and coastal biological diversity, being also relevant to many other international agreements, *inter alia*, the United Nations Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks and the Code of Conduct for Responsible Fisheries of the Food and Agriculture Organization of the United Nations, the Washington Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and regional agreements such as OSPAR.

3. *The importance of science*

5. Science should, *inter alia*, provide knowledge on key processes and influences in the marine and coastal ecosystems which are critical for structure, function and productivity of biological diversity. Research should focus on understanding the natural factors outside human influence, including intrinsic factors influencing ecosystems themselves, as well as on human interference with ecosystems.

6. Special efforts should be undertaken to support the Global Taxonomy Initiative in the marine and coastal environment in view of the importance of basic taxonomic work for the implementation of the objectives of the work programme, in accordance with decision IV/1 D.

7. It is important to draw upon regional scientific organizations, such as the International Council for the Exploration of the Sea (ICES). The creation and strengthening of regional scientific centres of excellence on the marine and coastal ecosystems, that provide guidance to regional and national managers, should be given priority.

4. *Roster of experts*

8. The Executive Secretary should make full use of the roster of experts on marine and coastal biological diversity. The use and administration of the roster by the Executive Secretary should be efficient, effective and transparent. Upon request of the Executive Secretary, Parties or other countries and relevant bodies, the experts on the roster are invited to make available their specific expertise in order to contribute to the further development of the scientific, technical, technological and socio-economic issues. Such requests could entail, *inter alia*, peer reviews, questionnaires, clarifications or examinations of scientific, technical, technological and socio-economic issues, specific contributions to the compilation of documents, participation in the global and regional work-

shops, and assisting in connecting the Jakarta Mandate and the present programme of work to international, regional, national and local scientific, technical and technological processes.

5. *Local and indigenous communities*

9. The programme of work will use and draw upon scientific, technical and technological knowledge of local and indigenous communities in keeping with the contents of Article 8(j) of the Convention as well as community and user-based approaches; in the execution of the programme of work, the involvement of relevant stakeholders including indigenous and local people should be promoted.

6. *Levels of implementation*

10. *National and local.* The primary basis for this programme of work is action at national and local levels. The Parties should, in accordance with Article 6 of the Convention, develop national strategies, plans and programmes in order to promote the conservation and sustainable use of marine and coastal biological diversity.

11. *Regional.* At the regional level, organizations, arrangements and bodies should be invited to coordinate activities of and/or relevant to the programme of work. These organizations should as appropriate and according to their own rules of procedure report to the Convention on their activities. Where regional organizations have not been established, the Parties and other institutions should examine the need for new regional organizations or other mechanisms for regional integration. co-operation and information flow between the economic sectors involved should be promoted. Regional scientific and technical centres of excellence should be promoted.

12. *Global.* At the global level, UNEP (including the Global International Water Assessment), FAO, the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Maritime Organization, the United Nations and other relevant bodies should be encouraged to implement the programme of work. These organizations should be invited to inform the Convention on their efforts to implement the Convention.

13. *Implementation modalities.* This programme of work is the programme of work of the Parties and of the Secretariat. The main function

of the Secretariat is to promote the implementation of specific activities and to perform an overall coordination role.

14. Activities associated with the programme of work should be cost-effective and efficient. Duplication of efforts will be avoided, and harmonization of respective programmes of work will be pursued through strong coordination between the Convention and other relevant bodies, with a particular view to the list of partner organizations mentioned in decision II/10, paragraph 13, and the Convention on Wetlands.

C. Programme elements

Programme element 1. Implementation of integrated marine and coastal area management (IMCAM)

Operational objective 1.1: To review the existing instruments relevant to IMCAM and their implication for the implementation of the Convention.

Activities:

(a) To identify existing mechanisms and instruments relevant to IMCAM;

(b) To identify focal points for the implementation of IMCAM at different levels (national, regional and global);

(c) Secretariat to gather, compare and analyse information provided by the focal points;

(d) To convene meetings involving representatives of stakeholders at different levels.

Time schedule: 1998-2000 (minimum three-year period)

Ways and means: The activities will be carried out by the Executive Secretary, with the collaboration of an informal inter-agency task force.

Budgetary implications: Costs related to communications and staff travel to inter-agency meetings and to service meetings. Costs related to convening of meeting of stakeholders on the integration of marine and coastal biological diversity into sectoral policies.

Operational objective 1.2: To promote the development and implementation of IMCAM at the local, national and regional level.

Activities:

(a) To promote, within the framework of IMCAM, the integration of biological diversity concerns in all socio-economic sectors adversely impacting the marine and coastal environment;

(b) To promote the identification or establishment of subregional, regional or global processes for developing advice on the application of IMCAM and issues identified under the operational objective;

(c) To promote adequate protection of areas important for reproduction such as spawning and nursery areas and restoration of such areas and other important habitats for marine living resources;

(d) To promote action to reduce and control sea-based sources of pollution;

(e) To assist the development of national and regional capacity-building;

(f) To provide information on relevant legal and institutional issues, having regard to the United Nations Convention on the Law of the Sea (UNCLOS) and other related international and regional agreements;

(g) To assist the development of appropriate education and public awareness programmes at all levels;

(h) To provide guidance on maintenance and wider application of local and traditional knowledge.

Time schedule: 1998-2000 (minimum three-year period)

Ways and means: The activities should be carried out by the Executive Secretary in collaboration with relevant organizations.

Budgetary implications: No significant budgetary implications.

Operational objective 1.3: To develop guidelines for ecosystem evaluation and assessment, paying attention to the need to identify and select indicators, including social and abiotic indicators, that distinguish between natural and human-induced effects.

Activities:

(a) To promote the development of sets of indicators on which to base decision-making; and convene regional workshops to help select key indicators;

(b) To identify existing organizations and initiatives;

(c) To promote the identification of key habitats for marine living resources on a regional basis, with a view to further develop policies for action to prevent physical alteration and destruction of these habitats, and pursue restoration of degraded habitats, including, *inter alia*, coral reef systems;

(d) To promote the establishment or strengthening of mechanisms for research, monitoring and assessment of marine and coastal ecosystems and their living resources;

(e) To promote exchange of information and experience using the clearing-house mechanism and other appropriate mechanisms;

(f) To collaborate with relevant organizations in the preparation of guidelines;

Time schedule: 1998-2000 (minimum three-year programme)

Ways and means: The activities should be carried out by the Executive Secretary and the Subsidiary Body on Scientific, Technical and Technological Advice, as part of the work programme on indicators, monitoring and assessment and in collaboration with relevant organizations.

Budgetary implications: Budgetary implications will be covered under the programmes of work on indicators, monitoring and assessment and public education, training and awareness. Voluntary contributions for regional workshops on indicators and public education, training and awareness activities are needed.

Programme element 2. Marine and coastal living resources

Operational objective 2.1: To promote ecosystem approaches to the sustainable use of marine and coastal living resources, including the identification of key variables or interactions, for the purpose of assessing and monitoring, first, components of biological diversity; second, the sustainable use of such components; and, third, ecosystem effects.

Activities:

(a) To develop collaborative links with relevant organizations and institutions;

(b) To promote the exchange of information and experience using appropriate mechanisms;

(c) To promote the identification and development of ecosystem approaches compatible with the sustainable use of marine and coastal living resources;

(d) To promote the identification both of components of the ecosystems which are critical to the functioning of the ecosystem and of key threats;

(e) To promote capacity-building at local, national and regional levels, including local and traditional knowledge;

(f) To carry out a study on the effects of stock enhancement on marine and coastal biological diversity at the species and genetic levels.

Time schedule: 1998-2000 (minimum three-year period)

Ways and means: The Executive Secretary shall promote the undertaking of the activities by relevant organizations and institutions. The information dissemination aspects should be included in the work plan of the clearing-house mechanism unit. The Executive Secretary shall attempt to establish an informal inter-agency task force for this work.

Budgetary implications: Costs related to communications and travel to inter-agency meetings. Relevant organizations are invited to conduct the study, within the framework of existing cooperative arrangements. Additional contributions from Parties, countries and organizations in the organization of capacity-building activities are expected.

Operational objective 2.2: To make available to the Parties information on marine and coastal genetic resources, including bioprospecting.

Activity:

To explore ways to expand the knowledge base on which to make informed and appropriate decisions about how this area might be managed in accordance with the objectives of the Convention.

Time schedule: 1998 (ongoing)

Ways and means: The activity should be implemented by the Executive Secretary, making full use of the roster of experts.

Budgetary implications: No significant budgetary implications.

Programme element 3. Marine and Coastal Protected Areas

Operational objective 3.1: To facilitate research and monitoring activities related to the value and the effects of marine and coastal protected areas or similarly restricted management areas on sustainable use of marine and coastal living resources.

Activities:

(a) To collaborate with relevant organizations in the preparation of project proposals;

(b) To work with relevant organizations to identify pilot projects;

(c) To conduct a desk study to gather and assimilate information;

(d) To identify the linkages between conservation and sustainable use;

(e) To facilitate Parties, countries or international/regional organizations in conducting research on the effects of marine and coastal protected or closed areas on population size and dynamics, subject to national legislation.

Time schedule: 1998-onwards (three to five-year period)

Ways and means: The Executive Secretary, in collaboration with relevant organizations and agencies, involving also funding agencies or donor countries, will facilitate and assist in the preparation of project documents and identify pilot projects for research and monitoring, as well as conduct the desk study. The projects should be undertaken by Parties and countries or competent organizations. The Executive Secretary, starting from the roster of experts, will select the names of an ad hoc technical expert group and elaborate the terms of reference for it, both to be endorsed by the Subsidiary Body on Scientific, Technical and Technological Advice. The expert group will carry out its activities under the Subsidiary Body on Scientific, Technical and Technological Advice and will work through electronic correspondence and teleconferences.

Budgetary implications: Costs related to communications. Additional voluntary contributions are needed from Parties or donor countries

or funding agencies to fund the projects, the amount depending on the number, nature and scale of the projects.

Operational objective 3.2: To develop criteria for the establishment of, and for management aspects of, marine and coastal protected areas.

Activities:

(a) To compile research findings on aspects of marine and coastal protected areas relevant to their selection, design, establishment and management;

(b) To assist in developing criteria for selection of marine and coastal protected areas, where critical habitats for marine living resources should be one important criterion;

(c) Using the clearing-house mechanism, to assist the exchange of information on research, management issues and problems (including incentive measures) between marine protected area managers, to facilitate continuous improvement in management effectiveness across the global network of marine protected areas;

(d) To implement activities as in subparagraphs (e) to (h) under operational objective 1.2.

Time schedule: 1998-2000 (minimum three-year programme)

Ways and means: The basis for undertaking these activities should be collaboration between the Executive Secretary, under the guidance of the Subsidiary Body on Scientific, Technical and Technological Advice, and relevant international, national and non-governmental organizations. The creation of an informal task force may be an appropriate mechanism, conducting its work through regular communication and through periodic meetings as required.

Budgetary implications: Costs related to communications and to staff travel to inter-agency meetings and to service meetings.

Programme element 4. Mariculture

Operational objectives: To assess the consequences of mariculture for marine and coastal biological diversity and promote techniques which minimize adverse impact.

Activities:

(a) To provide guidance on criteria, methods and techniques which avoid the adverse effects of mariculture and also subsequent stock enhancement on marine and coastal biological diversity and enhance the positive effects of mariculture on marine and coastal productivity;

(b) To collect and disseminate information, data, literature and bibliography relevant to the operational objective and best practice of successful sustainable mariculture, including the use of local species where appropriate;

(c) To evaluate the current state of scientific and technological knowledge on the effects of mariculture on marine and coastal biological diversity.

Time schedule: 1999-onwards (minimum three-year period)

Ways and means: Coordination of this programme of activities within the Secretariat creates the need for a professional with specific high-level expertise. This need could probably best be met through the secondment by a Party or specialized institution of an appropriate professional. To be successful and cost-effective, the work would need to draw upon specialist scientific knowledge world-wide. It would thus need to be supported by the establishment of an ad hoc technical expert group under the Subsidiary Body on Scientific, Technical and Technological Advice, taking into consideration the roster of experts. Operational aspects thus suggest that this work be undertaken from 1999 onwards.

Budgetary implications: Voluntary contribution by a Party or institution to cover the costs of the secondee. Costs for communications and travel to service meetings. Costs related to the convening of expert meeting(s).

Programme element 5. Alien species and genotypes

Operational objective 5.1: To achieve better understanding of the causes of the introduction of alien species and genotypes and the impact of such introductions on biological diversity.

Activities:

(a) To analyse and disseminate information, data and case studies on the subject;

(b) To develop collaboration with relevant organizations;

(c) To ensure exchange of information and experience, using appropriate mechanisms [see p. 179].

Time schedule: 1998-2000 (minimum three-year period)

Ways and means: The Executive Secretary, under the guidance of the Subsidiary Body on Scientific, Technical and Technological Advice, will seek the assistance of relevant organizations through an informal inter-agency task force. In particular, the options will be investigated for collaboration with UNEP, the Scientific Committee on Problems of the Environment (SCOPE), the International Council for the Exploration of the Sea (ICES), the World Conservation Union (IUCN) Invasive Species Specialist Group and the Global Invasive Species Programme in the development of a global strategy and action plan. In carrying out this work, it is expected that Parties or specialized institutions will second a specialist.

Budgetary implications: Voluntary contribution by a Party or institution to cover the costs of the secondee. Costs for communications.

Operational objective 5.2: To identify gaps in existing or proposed legal instruments, guidelines and procedures to counteract the introduction of and the adverse effects exerted by alien species and genotypes which threaten ecosystems, habitats or species, paying particular attention to transboundary effects; and to collect information on national and international actions to address these problems, with a view to prepare for the development of a scientifically-based global strategy for dealing with the prevention, control and eradication of those alien species which threaten marine and coastal ecosystems, habitats and species.

Activities:

(a) To request views and information from Parties, countries and other bodies;

(b) To analyse the information for the purpose of identifying gaps in legal instruments, guidelines and procedures;

(c) To evaluate the information on the effectiveness of efforts to prevent the introduction of, and to control or eradicate, those alien species which may threaten ecosystems, habitats or species;

(d) To identify means to support capacity-building in developing countries to strengthen their ability to conduct work related to alien species.

Time schedule: 1998-2000 (minimum three-year period)

Ways and means: The activities will be carried out by the Executive Secretary, in collaboration with Parties, countries and other relevant bodies and in co-operation with UNEP, IOC and IMO. It is proposed that a conference with global participation be held and that a Party or specialized institution will be able to host the conference. It is anticipated that the peer review process will be followed for the output of this programme activity.

Budgetary implications: Costs related to communications and staff travel servicing the conference. Voluntary contributions for holding the conference are needed.

Operational objective 5.3: To establish an "incident list" on introductions of alien species and genotypes through the national reporting process or any other appropriate means.

Activities:

(a) To distil references of incidents from the national reports and other appropriate sources;

(b) To make the information available through the clearing-house mechanism or other appropriate mechanisms.

Time schedule: Such information gathering can begin immediately and be informed by national reports as they are provided.

Ways and means: Secretariat

Budgetary implications: Costs related to additional staff time within the national reports unit and the clearing-house mechanism unit.

Programme element 6. General

Operational objective 6.1: To assemble a database of initiatives on programme elements through a cooperative approach with relevant organizations and bodies, with special emphasis on integrated marine and coastal areas management.

Activities:

(a) To identify sources of relevant information and to make this readily available;

(b) To request inputs from Parties, countries and relevant organizations and bodies;

(c) To carry out desk evaluations with the assistance of the roster of experts of available information and to disseminate the findings through the clearing-house mechanism.

Time schedule: 1998-2000 (minimum three-year programme)

Ways and means: Secretariat

Budgetary implications: Costs related to additional staff time within the clearing-house mechanism unit associated with the design of appropriate databases and posting information.

Operational objective 6.2: To develop a database of experts from the roster and other sources, to be available for the development and implementation of specific elements of national policies on marine and coastal biological diversity, giving full recognition to the importance of taxonomy and following closely the development of the Global Taxonomy Initiative and in accordance with decision IV/1 D. Special consideration should be given to regional perspectives and the setting up of regional centres of taxonomic expertise, as well as to the taxonomy efforts of other intergovernmental programmes, agencies and relevant institutions.

Activities:

(a) To maintain and update regularly a database of experts on marine and coastal biological diversity;

(b) To make the information available through the clearing-house mechanism;

(c) To promote the strengthening of taxonomic expertise at regional and national levels.

Time schedule: Ongoing

Ways and means: Secretariat, also through relevant organizations, in particular those that deal with taxonomic issues.

Budgetary implications: Costs related to additional staff time within the clearing-house mechanism unit associated with the design of the database and of the Jakarta Mandate on Marine and Coastal Biological Diversity home page.

DECISION

IV/6

AGRICULTURAL BIOLOGICAL DIVERSITY

The Conference of the Parties,

Recalling its decision III/11, on the conservation and sustainable use of agricultural biological diversity, and reiterating the importance of agricultural biological diversity as containing the most vital elements of biological diversity essential for food and livelihood security,

Emphasizing the need for a worldwide reorientation towards sustainable agriculture which balances production and conservation objectives in such a way as to meet the needs of expanding populations while maintaining an ecological balance,

Welcoming the statement presented by the Food and Agriculture Organization of the United Nations at the fourth meeting of the Conference of the Parties, regarding its offer to provide further technical assistance to Parties in the implementation of the three objectives of the Convention, in particular, in response to decision III/11,

Further welcoming the establishment by the Commission on Genetic Resources for Food and Agriculture, of an intergovernmental Technical Working Group for Animal Genetic Resources for Food and Agriculture, the first meeting of which is scheduled for September 1998,

1. *Endorses* recommendation III/4 of the Subsidiary Body on Scientific, Technical and Technological Advice [see p. 171] and, noting the progress made so far in initiating the development of the multi-year work programme on agricultural biological diversity called for in decision III/11, highlights the importance of speeding up implementation and requests full support of the Convention's instruments in such efforts;
2. *Reiterates its wish*, in accordance with paragraph 2 of decision III/11, that FAO maintain its coordinating role in the assessment of ongoing activities and instruments at regional and international levels and *requests* the Executive Secretary, in collaboration with FAO, to further consult with Parties, Governments and relevant organizations and bodies in the

finalization of this review with a view to making available a clear and well structured report, well in advance of the fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, that will facilitate the work of the Subsidiary Body on Scientific, Technical and Technological Advice;

3. *Requests* the Executive Secretary to reiterate the invitation to Parties and Governments for further national submissions, if possible in electronic form, on ongoing activities, existing instruments and lessons learned in the area of agricultural biological diversity, in the light of paragraphs 4, 5 and 6 and annex 2 of decision III/11;

4. *Suggests* that Governments, funding agencies, the private sector and non-governmental organizations should join efforts to identify and promote sustainable agricultural practices, integrated landscape management of mosaics of agriculture and natural areas, as well as appropriate farming systems that will reduce possible negative impacts of agricultural practices on biological diversity and enhance the ecological functions provided by biological diversity to agriculture. In this regard, *invites* Parties, Governments and organizations to begin the process of conducting case studies based on socio-economic and ecological analyses of different land-use management options and to provide such case studies to the Executive Secretary;

5. *Decides* to expand the focus placed on soil micro-organisms in annex 3 of decision III/11 to address all soil biota, as outlined in paragraph 8 of recommendation III/4 of the Subsidiary Body on Scientific, Technical and Technological Advice [see p. 171], and invites Parties, Governments and international organizations to conduct case studies on soil biota in agriculture and to provide them to the Executive Secretary for compilation in the form of a synthesis report for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice;

6. *Requests* Parties, Governments and international organizations, in particular FAO, in the light of paragraphs 9, 15 (a) and 15 (m) of decision III/11 and paragraphs 3 and 4 of decision IV/1 A, to begin to provide inputs on the development and application of methodologies for assessments of agricultural biological diversity and tools for identification and monitoring, including: criteria and indicators for agricultural biological diversity, including those addressing farming systems and agricultural ecosystems; rapid assessment techniques; the identification of underlying causes behind the loss of biological diversity; and the identification of incentives to overcome constraints and enhance the conservation and sus-

tainable use of agricultural biological diversity and the fair and equitable sharing of benefits;

7. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice at its fourth meeting, in accordance with paragraph 7 of decision III/11 and decision IV/16, to develop and provide to the Conference of the Parties at its fifth meeting, advice and recommendations for the development of the first phase, and subsequent phases, of the multi-year work programme on agricultural biological diversity;

8. *Welcomes* the close co-operation established between the Executive Secretary and FAO and, with reference to decision II/15 and decision III/11, paragraph 19, of the Conference of the Parties, urges that the momentum in the intergovernmental negotiations of the revision of the International Undertaking on Plant Genetic Resources in harmony with the Convention should be maintained with a view to its timely conclusion before the end of 1999;

9. *Requests* the Executive Secretary, as a complement to decision III/17, paragraph 6, to apply for observer status in the Committee on Agriculture of the World Trade Organization for the purpose of representing the Convention in meetings whose agendas may influence implementation of decision III/11 and related decisions of the Conference of the Parties;

10. *Requests* the Executive Secretary to report to the Conference of the Parties on the impact of trade liberalization on the conservation and sustainable use of agricultural biological diversity in consultation with relevant bodies, such as the World Trade Organization;

11. Reiterating the precautionary approach, *requests* the Subsidiary Body on Scientific, Technical and Technological Advice, to consider and assess, in light of contributions to be provided by Parties, Governments and organizations, whether there are any consequences for the conservation and sustainable use of biological diversity from the development and use of new technology for the control of plant gene expression, such as that described in United States patent 5723765, and to elaborate scientifically based advice to the Conference of the Parties. Moreover, *urges* Parties, Governments as well as civil society and public and private institutions to consider the precautionary approach in its application;

12. With reference to paragraphs 21 and 22 of decision III/11, *draws the attention* of international funding agencies, including the financial mechanism, to the need to support capacity-building in the development and implementation of this work programme;

13. *Welcomes* the efforts being made by the financial mechanism in the development of its operational policy framework on agricultural biological diversity and urges the early completion of this framework, fully in line with decision III/11, so as to provide effective implementation support to Parties and Governments in all agricultural ecosystems.

DECISION

IV/7

FOREST BIOLOGICAL DIVERSITY

The Conference of the Parties,

Recalling decision III/12 of the third meeting of the Conference of the Parties, and recommendations II/1, II/8 and III/3 of the Subsidiary Body on Scientific, Technical and Technological Advice,

Having considered the report of the Executive Secretary on the draft programme of work for forest biological diversity (UNEP/CBD/COP/4/7),

Taking note of views expressed by the Parties and countries on the development of the work programme, as contained in document UNEP/CBD/COP/4/Inf.11,

Noting that the development and implementation of national measures that enhance the integration of the conservation and sustainable use of forest biological diversity into national forest and land-use programmes and forest-management systems is an important task for both developed and developing countries,

Looking forward to the outcomes of forthcoming work under the Intergovernmental Forum on Forests (IFF), including the global workshop on underlying causes of deforestation, to be hosted by the Government of Costa Rica in January 1999,

Reaffirming that the proposals for action contained in the final report of the Intergovernmental Panel on Forests (IPF), in particular those related to national forest and land-use programmes, and the objectives of the Intergovernmental Forum on Forests, provide a good basis for the im-

plementation of key provisions of the Convention on Biological Diversity at the national level,

Noting that decision IV/13 gives further guidance to the Global Environment Facility (GEF) with regard to forest biological diversity,

1. *Decides* to endorse the work programme for forest biological diversity as contained in the annex to the present decision;
2. *Urges* Parties, countries, international and regional organizations, major groups and other relevant bodies to collaborate in carrying out the tasks identified in the work programme;
3. *Calls upon* Parties and countries to integrate forest biological diversity considerations in their participation and collaboration with organizations, institutions and conventions affecting or working with forest biological diversity;
4. *Invites* the Food and Agriculture Organization of the United Nations (FAO) to further integrate forest biological diversity into ongoing work with the Global Forest Resources Assessment;
5. *Urges* Parties and countries and international financial institutions, including the Global Environment Facility, to give high priority to the allocation of resources to activities that advance the objectives of the Convention in respect of forest biological diversity;
6. *Calls upon* the Global Environment Facility (GEF) to provide financial support, in accordance with Article 7 of the Convention, for activities and capacity-building for the implementation of the work programme for forest biological diversity and the use of the clearing-house mechanism, particularly for activities to halt and mitigate deforestation effects, basic assessments and monitoring of forest biological diversity, including taxonomic studies and inventories, focusing on forest species, other important components of forest biological diversity and ecosystems under threat;
7. *Invites* Parties, when requesting assistance through the financial mechanism, to propose projects that are being fully consistent with previous guidance of the Conference of the Parties and promote the implementation of the focused work programme on forest biological diversity;
8. *Requests* the financial mechanism of the Convention to consider the operational objectives of the programme of work as a guidance for funding in the field of forest biological diversity and strongly encourages the Global Environment Facility to assist in the implementation of the programme of work at the national, regional and subregional level;

9. *Notes* the potential impact of afforestation, reforestation, forest degradation and deforestation on forest biological diversity and on other ecosystems, and, accordingly, *requests* the Executive Secretary to liaise and cooperate with the Secretariat of the United Nations Framework Convention on Climate Change and the Secretariat of the Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa to achieve the objectives of the Convention on Biological Diversity;
10. *Requests* the Executive Secretary to compile a synthesized report on the information on forest biological diversity made available to the Conference of the Parties, particularly national reports;
11. *Requests* the Executive Secretary, in implementing the work programme on forest biological diversity to actively continue collaborating and cooperating with the secretariat of the Intergovernmental Forum on Forests and relevant institutions and to inform the Conference of the Parties thereon;
12. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice, in accordance with its mandate, to provide advice on the status and trends of forest biological diversity and the identification of options for the conservation and sustainable use of forest biological diversity to the Conference of the Parties at its sixth meeting;
13. *Requests* the Executive Secretary to transmit this decision to the Intergovernmental Forum on Forests at its second meeting, to the Conference of the Parties to the United Nations Framework Convention on Climate Change at its fourth meeting and to the Conference of the Parties to the Convention on Desertification at its second meeting.

Annex

WORK PROGRAMME FOR FOREST BIOLOGICAL DIVERSITY UNDER THE CONVENTION ON BIOLOGICAL DIVERSITY

I. INTRODUCTION

1. In accordance with decision III/12 of the Conference of the Parties, this work programme on forest biological diversity focuses on the re-

search, co-operation and development of technologies necessary for the conservation and sustainable use of forest biological diversity of all types of forests in the programme elements and priority areas already identified.

2. The work programme is based on recommendation III/3 of Subsidiary Body on Scientific Technical and Technological Advice (SBSTTA) and incorporates the views and interests expressed by Parties and countries. The work programme is action-oriented, demand-driven, needs-driven and flexible enough to reflect and respond to changing conditions, including but not limited to, the outcome of and the priorities to be identified by the Intergovernmental Forum on Forests (IFF). The work programme also reflects the varied needs and circumstances of Parties, indicating that inclusion of an activity in the work programme does not necessarily imply full participation in that activity by all Parties. In carrying out work under the identified programme elements, Parties should recall the further research priorities listed in recommendation II/8 of the Subsidiary Body on Scientific, Technical and Technological Advice [see p. 170].

A. Objectives

3. The objectives of the programme of work are:

(a) To enhance Parties' abilities to realize the objectives of the Convention through improved implementation, by encouraging and assisting Parties to develop measures for enhancing the integration of conservation and sustainable use of biological diversity into their national forest and land-use programmes and forest-management systems;

(b) To facilitate the implementation of the objectives of the Convention on Biological Diversity based on the ecosystem approach;

(c) To provide an effective and complementary tool to national forest and land-use programmes for the implementation of the Convention on Biological Diversity at the national level;

(d) To identify traditional forest systems of conservation and sustainable use of forest biological diversity and to promote the wider application, use and role of traditional forest-related knowledge in sustainable forest management and the equitable sharing of benefits, in accordance with Article 8(j) and other related provisions of the Convention;

(e) To identify mechanisms that facilitate the financing of activities for the conservation, incorporation of traditional knowledge and sustain-

able use of forest biological diversity, taking into account that activities should be complementary to, and should not duplicate, existing efforts;

(f) To contribute to ongoing work in other international and regional organizations and processes, in particular to the implementation of the proposals for action of the Intergovernmental Panel on Forests and to provide input to IFF;

(g) To contribute to the access to and transfer of technology in accordance to Article 16 of the Convention; and

(h) To identify the contribution of networks of protected areas to the conservation and sustainable use of forest biological diversity.

B. Time-frame

4. The programme of work reflects a rolling three-year planning horizon in three phases, on the assumption that, in its consideration, the Conference of the Parties will identify a rolling longer-term programme of work.

C. Review and planning process

5. Each phase of the work programme should be subject to periodic review and the development of the work programme, including work in its future phases, should take into consideration recommendations made by the Subsidiary Body on Scientific, Technical and Technological Advice. The phases and outputs should take into account the time-frames and work of IFF.

6. Interim reports after each three-year phase to provide the Conference of the Parties with information on progress made in the implementation of the work programme.

D. Ways and means

7. In its recommendation III/3, the Subsidiary Body on Scientific, Technical and Technological Advice identified the following ways and means for carrying out the work programme: workshops, regional meetings, clearing-house mechanism, scientific meetings and case studies. Other feasible ways and means include:

- (a) National mechanisms and pilot projects;
- (b) Peer-review mechanisms, including networks of experts or liaison groups and inter-agency task force groups, relying to the extent possible on existing electronic communication systems;
- (c) Use of national and international data and meta-databases, especially in the national and regional monitoring of forest biological diversity;
- (d) Bearing in mind Articles 16 and 17 of the Convention, use of remote-sensing technologies to assist Parties to assess changes in their forest biological diversity, as well as to enhance their ability to report on certain aspects of criteria and indicators frameworks.

E. Collaborative efforts

8. The work programme should support and enhance co-operation on the conservation and sustainable use of forest biological diversity at all levels, ranging from community to inter-organization level, nationally and internationally. At all levels the work programme should be developed and implemented with relevant stakeholders, recognizing that the most important part of work is action at the national level.

9. In the context of this work programme, collaboration should be strengthened in particular with the Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa and with the United Nations Framework Convention on Climate Change, in order to advance the effective implementation of the Convention on Biological Diversity.

II. WORK PROGRAMME

Elements of the proposed work programme

10. The work programme elaborates, as follows, the elements for inclusion therein:

1. Holistic and inter-sectoral ecosystem approaches that integrate the conservation and sustainable use of biological diversity, taking account of social and cultural and economic considerations

11. The IPF proposal for action 17 encourages countries to develop, implement, monitor and evaluate national forest programmes, which include a wide range of approaches for sustainable forest management, including ecosystem approaches that integrate the conservation of biological diversity and the sustainable use of biological diversity.

Research

Approach

12. Synthesize existing knowledge of holistic and inter-sectoral approaches that enhance the integration of forest biological diversity conservation into sustainable forest management, examine how such integration can be better achieved, and assist in identifying priority research areas in relation to these approaches.

Activities

13. Examination of methodologies for enhancing the integration of forest biological diversity conservation and sustainable use into an holistic approach to sustainable forest management.

14. Development of methodologies to advance the integration of traditional forest-related knowledge into sustainable forest management, in accordance with Article 8 (j).

15. Co-operation on the conservation and sustainable use of forest biological resources at all levels, ranging from community to inter-organization level, at the national and international levels in accordance with Articles 5 and 16 on the Convention.

16. Case studies from countries in which the ecosystem approach has been applied in sustainable forest management practices, including arid and semi-arid areas. This could assist other countries in developing their own national actions and approaches under this work programme.

17. Sharing of relevant technical and scientific information on networks at all levels of protected forest areas and networking modalities, taking into account existing national, regional and international networks and structures, in all types of forest ecosystems.

Ways and means

18. Clearing-house mechanism, national pilot projects, the Convention on Biological Diversity participating in Inter-Agency Task Force on Forests (ITFF) and in the meetings of IFF to actively encourage countries to implement national forest programmes that encompass an ecosystem approach which ensures the maintenance of forest biological diversity values, while also taking into account social, cultural and economic considerations.

19. Consideration of the UNEP guidelines and the FAO document entitled "Basic principles and operational guidelines for the formulation, execution and revision of national forestry programmes" for the preparation of country studies of biological diversity.

20. The integration of social, cultural and economic considerations into the conservation and sustainable use of forest biological diversity will bring the concept close to sustainable forest management. The issue should also be dealt with thoroughly in other forums, mainly within the work under IFF.

Outcomes

21. A better understanding of the ecosystem approach as it relates to forest biological diversity, and an elaboration of the linkages to other work under the Convention, including the incorporation of Article 8(j).

22. Guidance of the Convention on Biological Diversity to IFF and other relevant forums and conventions.

23. co-operation among Parties and with organizations and conventions.

24. A better understanding of the complexity and interdependencies of biological communities and their dependencies on the abiotic site-specific factors.

25. Methodologies to help ensure that forest plans and practices reflect the social, cultural and economic values of forests as well as the views of forest stakeholders.

26. Identification of general guidelines or methodologies to help ensure that forest plans and practices reflect biological diversity conservation considerations, as well as social, cultural and economic factors.

27. Clarification of the links between the ecosystem approach and sustainable forest management.

Development of technologies

Approach

28. Promote activities to support the development of techniques and means for the effective conservation and sustainable use of biological resources, in particular, full support for technology transfer from developed to developing countries, in accordance with Article 16 of the Convention.

2. Comprehensive analysis of the ways in which human activities, in particular forest-management practices, influence biological diversity and assessment of ways to minimize or mitigate negative influences

Research

Approach

29. Promote activities for an enhanced understanding of positive and negative human influences on forest ecosystems by land-use managers, policy makers, scientists and all other relevant stakeholders.

30. Promote activities to assemble management experiences and scientific, indigenous and local information at the national and local levels to provide for the sharing of approaches and tools that lead to improved forest practices with regard to forest biological diversity.

31. Promote activities with the aim of providing options to minimize or mitigate negative and to promote positive human influences on forest biological diversity.

32. Promote activities to minimize the impact of harmful alien species on forest biological diversity, particularly in small island developing States.

Activities

33. Identification of means and mechanisms to improve the identification and prioritization of research activities related to the influences of human activities, in particular forest management practices, on forest biological diversity.

34. Improve dissemination of research results and synthesis of reports of the best available scientific and traditional knowledge on key forest biological diversity issues.

35. case studies on assessing impacts of fires and alien species on forest biological diversity and their influences on the management of forest ecosystems and savannahs [see p. 178].

Ways and means

36. Regional workshops and/or liaison meetings that bring together experts in sustainable forest management, sustainable use and science from the forest sector and, if necessary, representatives from other relevant sectors, with experts on biological diversity, bearing in mind the IPF proposal for action contained in paragraph 94 of the report on its fourth session.

37. The sharing of forest and land-use guidelines, for example, through the clearing-house mechanism, to ensure the fuller integration of genetic, species and habitat diversity into sustainable forest management systems.

Outcomes

38. Analysis of human impacts on forest ecosystems, as well as an enhanced ability to prioritise research needs and apply results and an enhanced understanding of the role of traditional knowledge in ecosystem management to minimize or mitigate negative influences, and to promote the positive effects.

39. Expansion of research capacity to develop and assess options incorporating the applications of traditional knowledge to minimize or mitigate negative influences, and to promote the positive effects.

3. Methodologies necessary to advance the elaboration and implementation of criteria and indicators for forest biological diversity

Research

Approach

40. Foster activities to determine and advance the methodology for elaborating and implementing the criteria and indicators of forest biological diversity. These activities could supplement work that has already

been developed. In this regard, coordination with IFF, and drawing upon existing and ongoing work at the national, regional and international levels, is recognized as an important approach.

41. Foster activities to determine criteria and indicators for the conservation and sustainable use and the fair and equitable sharing of benefits arising out of utilization of resources of forest biological diversity and to advance methodology for integrating these criteria and indicators into existing criteria and indicators processes.

42. The work related to indicators of forest biological diversity could also imply the need for an inventory to assess current status and trends in forest biological diversity, at the local and national level based on repeated measures of the selected indicators. The work under this programme element could also include, *inter alia*, capacity-building on taxonomy and inventories, taking note of the work under the Global Taxonomy Initiative.

Activities

43. Assessment of experiences gained in the national and regional processes, identifying common elements and gaps in the existing initiatives and improving the indicators for forest biological diversity.

44. Taxonomic studies and inventories at the national level which provide for a basic assessment of forest biological diversity.

Ways and means

45. Collaboration with national institutions and relevant bodies and in coordination with the work on the general development of methods for implementing Article 7 under the Convention. Collaboration with ITFF member agencies; cooperating with and complementing existing criteria and indicators initiatives for sustainable forest management, including regional initiatives to develop appropriate criteria and indicators, such as the Helsinki process for boreal, temperate and Mediterranean-type forests in Europe; the Montreal process for temperate and boreal forests outside Europe; the Tarapoto proposal for the Amazon forest; the UNEP/FAO-initiated processes for dry-zone Africa and the Near East in arid and semi-arid areas; and the "Lepaterique" process for Central America initi-

ated by FAO and the Central American Commission for Environment and Development (CCAD).¹

46. Review of specific indicators of forest biological diversity that have been derived by the major ongoing international processes related to sustainable forest management. The prioritization of related activities should consider the development of indicators that are capable of providing the most useful information on national or regional status and trends of forest biological diversity.

Outcomes

47. Methodologies to advance the elaboration and implementation of criteria and indicator frameworks and the improved capacity of countries to implement these frameworks.

48. Contribution to the national and regional initiatives in the development of indicators under the criteria for forest biological diversity.

4. Further research and technological priorities identified in the recommendation II/8 of the Subsidiary Body on Scientific, Technical and Technological Advice as well as issues identified in the review and planning process under the work programme

49. Included under this element is a series of specific research and technological priorities initially identified under recommendation II/8 [see p. 170] of the Subsidiary Body on Scientific, Technical and Technological Advice. These represent important issues brought forward into the Convention from the IPF proposals for action. These priorities are among the issues to be discussed by IFF at its scheduled meetings in 1998 and 1999 and within the inter-sessional meetings of the IFF,² as part of its attempt to identify and define global and regional research priorities for forests, taking into account national priorities. It is essential that the Convention on Biological Diversity coordinates with IFF in order to enhance synergy on these issues as they intersect with the programme of work for forests under the Convention on Biological Diversity.

¹ See background document for the Intergovernmental Seminar on Criteria and Indicators for Sustainable Forest Management, Helsinki, June 1996.

² For example, the international seminar on research and information needs in international forest processes, to be held in Vienna in September 1998.

50. Following input from IFF on these priorities, the Conference of the Parties may wish to consider incorporating them in phases 2 and 3 of this work programme. When additional scientific and technological priorities are identified, they can similarly be incorporated in the periodic planning activities and reviews of the work programme.

Research

Analysing measures for minimizing or mitigating the underlying causes of forest biological diversity loss

51. Besides unsustainable forest-management practices there are other causes for the loss of forest biological diversity in forest ecosystems, such as habitat transformation, harmful alien species, pollution, erosion, uncontrolled forest fires and poverty. There is a need for a better understanding of the underlying social, cultural and economic causes of forest biological diversity loss and the improvement of measures for mitigating those causes [see p. 178].

Assessing ecological landscape models, the integration of protected areas in the ecosystem approach to sustainable forest management and the representativeness and adequacy of protected areas networks

52. Conserving the biological diversity of forests should be carried out both by establishing protected areas and by taking into account biological diversity conservation in all types of forests outside the protected areas, taking into account plantation forests. The outcome of this programme element would include the further development of methods to integrate protected areas into sustainable forest management and analysis of the representativeness and adequacy of the protected areas networks.

53. Reducing gaps in knowledge in the areas of fragmentation of habitats and population viability, to include mitigation options such as ecological corridors and buffer zones.

54. The work should also contribute to the preparation of the discussions of the Conference of the Parties on *in situ* conservation.

Advancing scientific and technical approaches*Activities*

55. Promoting the development of scientific and technical local approaches to:

- (a) Conserve and sustainably manage biological diversity in production forests;
- (b) Rehabilitate degraded and deforested ecosystems as appropriate;
- (c) Enrich indigenous biological diversity in forest plantations.

56. Developing assessment and valuation methodologies for the multiple benefits derived from forest biological diversity.

DECISION

IV/8

ACCESS AND BENEFIT-SHARING*The Conference of the Parties*

1. *Requests* the inter-sessional open-ended meeting referred to in decision IV/16, paragraph 2, to explore options for access and benefit-sharing mechanisms and to start work on paragraph 10 of decision IV/15 and to make recommendations for future work;
2. *Requests* the Executive Secretary to invite information from Parties and relevant organizations in time for the inter-sessional meeting in respect of those *ex situ* collections which were acquired prior to the entry into force of the Convention on Biological Diversity and which are not addressed by the Commission on Genetic Resources for Food and Agriculture of the Food and Agriculture Organization, to help the inter-sessional meeting to make recommendations to the fifth meeting of the Conference of the Parties for future work on resolving the issue of such *ex-situ* collections, with due regard to the provisions of the Convention;

3. *Decides* to establish a regionally balanced panel of experts appointed by Governments, composed of representatives from the private and the public sectors as well as representatives of indigenous and local communities, operating in accordance with decisions II/15, III/11 and III/15, under the Conference of the Parties and reporting to its next meeting. The mandate of this panel would be to draw upon all relevant sources, including legislative, policy and administrative measures, best practices and case studies on access to genetic resources and benefit-sharing arising from the use of those genetic resources, including the whole range of biotechnology, in the development of a common understanding of basic concepts and to explore all options for access and benefit-sharing on mutually agreed terms including guiding principles, guidelines, and codes of best practice for access and benefit-sharing arrangements. These options might address, *inter alia*, the elements set out in the annex to the present decision;

4. *Requests* the financial mechanism to give special emphasis to the following programme priorities to fund initiatives by eligible Parties:

(a) Stock-taking activities, such as, for example, assessments of current legislative, administrative, and policy measures on access to genetic resources and benefit-sharing, evaluation of the strengths and weaknesses of a country's institutional and human capacity, and promotion of consensus-building among its different stakeholders; and, for those developing country Parties that have identified arrangements for benefit-sharing as a national priority;

(b) Formulation of access and benefit-sharing mechanisms at the national, subregional and regional level including monitoring and incentive measures;

(c) Capacity-building for measures on access to genetic resources and sharing of benefits, including capacity-building for economic valuation of genetic resources;

(d) Within biodiversity projects, other specific benefit-sharing initiatives, such as support for entrepreneurial developments by local and indigenous communities, facilitation of financial sustainability of projects promoting the sustainable use of genetic resources, and appropriate targeted research components;

5. *Invites* all relevant organizations and the private sector to support efforts by Parties and Governments to develop and promote legislative or administrative measures, policies and programmes which facilitate the distribution of benefits arising from the use of genetic resources on mutu-

ally agreed terms and to update the Executive Secretary on a regular basis regarding their activities and experiences;

6. *Requests* the Executive Secretary:

(a) To explore the possibility of linking the clearing-house mechanism with relevant international and other organizations to access publicly available information on intellectual property rights which are based on biological resources and to report on the progress made on this matter to the Conference of the Parties at its fifth meeting;

(b) To compile information on access and benefit-sharing arrangements and to disseminate such information in a standardized format through the clearing-house mechanism;

(c) To facilitate the exchange of information related to access and benefit-sharing through appropriate means such as the clearing-house mechanism;

(d) To prepare a background document on the review of implementation of measures to promote and advance benefit-sharing arrangements, based on the experiences submitted by Parties, Governments and relevant organizations.

Annex

1. Prior informed consent in provider countries for access to genetic resources and research and development.
2. Clear, established mechanisms to provide such consent, including, *inter alia*, legislative, administrative and policy measures, as appropriate.
3. Reference to the country of origin, where available, in relevant publications and patent applications.
4. Mutually agreed terms including on benefit-sharing and intellectual property rights and technology transfer, where appropriate.
5. Efficient permitting and regulatory procedures that avoid burdensome procedures involving high transaction costs.
6. Incentive measures to encourage the conclusion of contractual partnerships.

DECISION

IV/9

**IMPLEMENTATION OF ARTICLE 8(j)
AND RELATED PROVISIONS**

The Conference of the Parties,

Recalling its decision III/14,

Realizing the importance for biological diversity of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity,

Emphasizing the need for dialogue with representatives of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity within the framework of the Convention,

Welcoming the report of the inter-sessional workshop on Article 8(j), held in Madrid from 24 to 28 November 1997,

Expressing its sincere appreciation to the Government of Spain for hosting the inter-sessional workshop,

Reaffirming the dynamic nature of traditional knowledge, innovations and practices,

Recognizing that traditional knowledge should be given the same respect as any other form of knowledge in the implementation of the Convention,

Recognizing also that intellectual property rights may have implications for the implementation of the Convention and achievement of its objectives under Article 8(j),

Further recognizing the importance of making intellectual-property-related provisions of Article 8(j) and related provisions of the Convention on Biological Diversity and provisions of international agreements relating to intellectual property mutually supportive, and the desir-

ability of undertaking further co-operation and consultation with the World Intellectual Property Organization,

Welcoming the decision of the World Intellectual Property Organization to incorporate biodiversity-related issues under its 1998-1999 main programme item 11 ("Global intellectual property issues"),

Acknowledging the importance of starting work as soon as possible on priority work programme elements,

Expressing its sincere appreciation for the valuable contribution made by the participating representatives of the indigenous and local communities at the fourth meeting of the Conference of the Parties,

1. *Decides* that an ad hoc open-ended inter-sessional working group be established to address the implementation of Article 8(j) and related provisions of the Convention. The mandate of this working group shall be:

(a) To provide advice as a priority on the application and development of legal and other appropriate forms of protection for the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity;

(b) To provide the Conference of the Parties with advice relating to the implementation of Article 8(j) and related provisions, in particular on the development and implementation of a programme of work at national and international levels;

(c) To develop a programme of work, based on the structure of the elements in the Madrid report (UNEP/CBD/COP/4/10/Add.1) as set out in the annex to the present decision;

(d) To identify those objectives and activities falling within the scope of the Convention; to recommend priorities taking into account the programme of work of the Conference of the Parties, such as the equitable sharing of benefits; to identify for which work-plan objectives and activities advice should be directed to the Conference of the Parties and which should be directed to the Subsidiary Body on Scientific, Technical and Technological Advice; to recommend which of the work-plan objectives and activities should be referred to other international bodies or processes; to identify opportunities for collaboration and coordination with other international bodies or processes with the aim of fostering synergy and avoiding duplication of work;

(e) To provide advice to the Conference of the Parties on measures to strengthen co-operation at the international level among indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity and make proposals for the strengthening of mechanisms that support such co-operation;

2. *Decides* that the working group shall be composed of Parties and observers, including, in particular, representation from indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity with participation to the widest possible extent in its deliberations in accordance with the rules of procedure;

3. *Encourages* Parties to include representatives of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity in their delegations;

4. *Encourages* Parties to promote consultations among indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity concerning the issues to be dealt with in the working group;

5. *Encourages* indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity to participate and to identify the process to select their participants in the working group, taking into account the funds available, the need for geographical balance and the need for the working group to be effective and efficient;

6. *Decides* that the working group should meet in conjunction with Subsidiary Body on Scientific, Technical and Technological Advice, unless a Party offers to host the meeting of the working group;

7. *Decides* that the working group shall report directly to the Conference of the Parties and that the working group may provide advice to the Subsidiary Body on Scientific, Technical and Technological Advice on issues relevant to its agenda;

8. *Decides* that the costs of servicing the meetings of the working group shall be funded in accordance with the relevant provisions of decision IV/17, as related to the budget;

9. *Decides* that there shall be both short- and medium-term activities in the programme of work to facilitate the work of the Parties in the implementation of Article 8(j) and related provisions;

10. As part of the short-term activities, *invites* Governments, international agencies, research institutions, representatives of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and non-governmental organizations to submit case studies and other relevant information to the Executive Secretary, on the following, as background information for the working group without being a prior condition to or preempting the deliberations of the working group in discharging its mandate as set out in paragraph 1 (c) of the present decision:

(a) Interactions between traditional and other forms of knowledge relating to the conservation and sustainable use of biological diversity;

(b) The influence of international instruments, intellectual property rights, current laws and policies on knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity;

(c) The extent to which traditional knowledge of indigenous and local communities has been incorporated into development and resource-management decision-making processes;

(d) Documented examples and related information on ethical guidance for the conduct of research in indigenous and local communities about the knowledge they hold; and

(e) Matters of prior informed consent, fair and equitable sharing of benefits and *in situ* conservation in lands and territories used by indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity;

11. *Requests* the Executive Secretary to prepare a suitable format for the presentation of the information requested in paragraph 10 of the present decision, in order to assist in the preparation of its synthesis in support of the programme of work;

12. *Requests* Parties according to their capabilities to facilitate the representation, and financially and logistically support the active participation in the working group of the indigenous and local communities from their territories;

13. *Encourages* Parties, when making applications to the interim financial mechanism for funding in respect of activities under Article 8(j) and related provisions, to consider: (a) priorities as set out in paragraph 10 and (b) projects in support of the development of national legislation and corresponding strategies on the implementation of Article 8(j), as well as

(c) projects in support of preparations by indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity for their active participation in and contribution to the working group;

14. *Requests* the Executive Secretary to transmit to the secretariat of the World Intellectual Property Organization, decisions and documents of the fourth meeting of the Conference of the Parties and to apply for observer status in the World Intellectual Property Organization, for the purpose of representing the Convention on Biological Diversity in meetings related to main programme 11.1 and 11.2 of the Organization;

15. *Encourages* Governments, relevant international and regional organizations and representatives of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity to conduct and communicate to the Executive Secretary, case studies for dissemination through means such as the clearing-house mechanism and *requests* the Executive Secretary to compile case studies submitted under decisions of the Conference of the Parties at its third and fourth meetings relating to Article 8(j) and intellectual property rights, including existing *sui generis* systems and/or adapted forms of protection to the knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biological diversity for transmittal to the World Intellectual Property Organization and for use in initiatives on legislating on the implementation of Article 8(j) and related provisions;

16. *Invites* the World Intellectual Property Organization to take into account the lifestyles and the traditional systems of access and use of the knowledge, technologies and practices of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity in its work and the relevant recommendations of the Conference of the Parties;

17. *Requests* the Executive Secretary to seek ways, including the possibility of negotiating a memorandum of understanding with the World Intellectual Property Organisation, to enhance co-operation between the Convention on Biological Diversity and the World Intellectual Property Organization on issues arising from Article 8(j) and related provisions and *encourages* Parties to forward information to the Executive Secretary to support such co-operation.

Annex

**STRUCTURE OF WORK PROGRAMME OPTIONS FROM
THE MADRID REPORT (UNEP/CBD/COP/4/10/Add.1)**

- A. Participatory mechanisms for indigenous and local communities
- B. Status and trends in relation to Article 8(j) and related provisions
- C. Traditional cultural practices for conservation and sustainable use
- D. Equitable sharing of benefits
- E. Exchange and dissemination of information
- F. Monitoring elements
- G. Legal elements

DECISION

IV/10

**MEASURES FOR IMPLEMENTING
THE CONVENTION ON BIOLOGICAL DIVERSITY**

- A. Incentive measures: consideration of measures for the implementation of Article 11**

The Conference of the Parties,

Reaffirming the importance for the implementation of the Convention of the design and implementation by Parties and Governments of economically and socially sound measures that act as incentives for the conservation and sustainable use of biological diversity,

Recalling decision III/18 on incentive measures,

Recognizing that incentive measures should be designed using an ecosystem approach and with the targeted resource management audience in mind,

Recognizing that economic valuation of biodiversity and biological resources is an important tool for well-targeted and calibrated economic incentive measures,

1. *Encourages* Parties, Governments and relevant organizations:

(a) To promote the design and implementation of appropriate incentive measures, taking fully into account the ecosystem approach and the various conditions of the Parties and employing the precautionary approach of Principle 15 of the Rio Declaration on Environment and Development, in order to facilitate achieving the implementation of the objectives of the Convention and to integrate biological diversity concerns in sectoral policies, instruments and projects;

(b) As a first step towards formulating incentive measures, to identify threats to biological diversity and underlying causes of reduction or loss of biological diversity and relevant actors;

(c) To take into account economic, social, cultural and ethical valuation in the development of relevant incentive measures;

(d) To develop supportive legal and policy frameworks for the design and implementation of incentive measures;

(e) To carry out participatory consultative processes at the relevant level to define the clear and target-oriented incentive measures to address the identified underlying causes of biodiversity reduction or loss and unsustainable use;

(f) To identify perverse incentives and consider the removal or mitigation of their negative effects on biological diversity in order to encourage positive, rather than negative, effects on the conservation and sustainable use of biological diversity;

(g) To prepare case studies on incentive measures in the thematic focus of the fifth meeting of the Conference of the Parties, utilizing the indicative outline prepared by the Executive Secretary as far as possible, and to make them available to the Executive Secretary;

(h) To undertake value addition and enhancement of naturally occurring genetic resources, based on the participatory approach, where appropriate, to work as incentives for their conservation and sustainable use;

2. *Requests* Parties to include information on the design and implementation of incentive measures in their second national reports;

3. *Requests* the financial mechanism to provide to eligible Parties adequate and timely support for the design and approaches relevant to the implementation of incentive measures including, where necessary, assessment of biological diversity of the relevant ecosystems, capacity-building necessary for the design and implementation of incentive measures and the development of appropriate legal and policy frameworks, and projects with components that provide for these incentives;

4. *Invites* all relevant organizations:

(a) To support efforts by Parties to design and implement appropriate incentive measures;

(b) To assist Parties and Governments to identify gaps in national capacity for policy research and analysis relevant to the design of incentive measures and to develop the necessary capacity to conduct such research and analysis;

5. *Requests* the Executive Secretary:

(a) To compile the information received from Parties, Governments and relevant organizations and to facilitate the exchange of information through appropriate means, such as the clearing-house mechanism, taking full advantage of existing and ongoing work of Parties and relevant organizations in this area;

(b) To prepare in collaboration with the Organisation for Economic Development and co-operation (OECD), the World Conservation Union (IUCN) and other relevant organizations, a background paper containing further analysis of the design and implementation of incentive measures for the conservation and sustainable use of biodiversity, as it is related to the incentive measures in the thematic focus of the fifth meeting of the Conference of the Parties, with the aim of developing guidance to Parties;

(c) To describe, in this document, ways and means to identify perverse incentives and possibilities to remove or mitigate their negative effects on biological diversity.

B. Public education and awareness: consideration of measures for the implementation of Article 13

The Conference of the Parties,

Recalling Article 13 of the Convention, on public education and awareness,

Recognizing the importance of public education and awareness as central instruments to achieve the Convention's goals and to ensure effective implementation of the Convention at the national level, and also recognizing the need for capacity-building in this area,

Having taken note of the decision of the Commission on Sustainable Development at its sixth session on transfer of environmentally sound technology, capacity-building, education and public awareness, and science for sustainable development,

Recognizing that the conservation and sustainable use of biological diversity includes social issues which require cultural understanding and sensitivity, and that efforts to promote the goals of Article 13 entail recognition of the diverse needs of people and their differing perceptions, knowledge, attitudes, interests, values and understanding in respect of the goals of the Convention, and that public education and awareness on biological diversity is most effective when it occurs in a social context that is meaningful to a specific audience,

Noting the opportunities for synergy on this particular issue within the Convention, the activities of the Commission on Sustainable Development, the mandate and activities of the United Nations Educational Scientific and Cultural Organization, the World Conservation Union (IUCN) and relevant activities of other bodies on public education, training and awareness on matters related to biological diversity,

Stressing that modern technologies and expanding access to electronic communication means bring new possibilities for promoting and encouraging understanding of the importance of, and measures required for, the conservation of biological diversity; but also recognizing the importance of traditional communication systems among local communities, with emphasis on maintaining their integrity and dynamism,

Further recognizing the role of the public media and non-traditional means of communication in information dissemination and awareness-raising,

Recognizing that non-governmental organizations have an important role in developing and disseminating information on biological diversity, especially in reaching out to marginalized groups who have a significant role to play in the conservation and sustainable use of biological diversity,

1. *Urges* Parties:

(a) To place special emphasis on the requirements of Article 13 of the Convention in the development of their national strategies and action plans;

(b) To promote education on biological diversity through relevant institutions, including non-governmental organizations;

(c) To allocate appropriate resources for the strategic use of education and communication instruments at each phase of policy formulation, planning, implementation and evaluation, including the identification of relevant target groups seeking to provide these with relevant, timely, reliable and understandable information;

(d) To integrate biological diversity concerns into education strategies, recognizing the particular needs of indigenous and local communities; and

(e) To support initiatives by major groups that foster stakeholder participation in biological diversity conservation and sustainable use and that integrate biological diversity conservation matters into their practices and educational programmes;

2. *Also urges* Parties to share experiences on initiatives on public education and awareness and public participation relevant to the Convention, particularly on a sectoral and thematic basis, and to make relevant case studies as well as lessons learned in the preparation of national biological diversity policies, strategies and plans available to the Executive Secretary and for the exchange of information among Parties through the clearing-house mechanism and to consider how to organize assistance for Parties who may be keen to develop public awareness and education strategies, but lack the ability to do so;

3. *Encourages* Parties to make use of the media, including print and electronic media, to promote public education and awareness about the importance and appropriate methods for the conservation and sustainable use of biological diversity;

4. *Calls upon* Parties, where necessary, to illustrate and translate the provisions of the Convention into the respective local languages to promote public education and awareness-raising of relevant sectors, including local communities;
5. *Decides* that public education and awareness issues shall be integrated into and become an integral component of all sectoral and thematic items under the programme of work of the Conference of the Parties;
6. *Invites* the United Nations Educational, Scientific and Cultural Organization (UNESCO) to consider launching a global initiative on biological diversity education, training and public awareness and *requests* the Executive Secretary to explore the feasibility of such an initiative and to report to the fifth meeting of the Conference of the Parties on the progress of such an initiative;
7. *Invites* the United Nations Environment Programme (UNEP), in cooperation with other United Nations bodies and other relevant international and regional organizations, agreements, processes and institutions, to continue and make use of existing initiatives and to further develop its information dissemination and public-awareness activities in support of the work of the Convention;
8. *Urges* Parties, relevant organizations and donor agencies to support local, national, subregional and regional public education and awareness initiatives;
9. *Urges* Parties, when requesting for assistance through the financial mechanism of the Convention, to propose projects which promote measures for implementing the provisions of the Convention on public education and awareness;
10. *Decides* to review progress in the implementation of the above activities, at the latest at its seventh meeting.

C. Impact assessment and minimizing adverse effects: consideration of measures for the implementation of Article 14

The Conference of the Parties,

Recalling Article 14 of the Convention, on impact assessment and minimizing adverse impacts, including its provision on liability and redress for damage to biological diversity,

Recalling also its decision II/18, on measures to provide information and share experiences on the implementation of Article 14,

Taking note of document UNEP/CBD/COP/4/20,

Noting the initiatives in this field, such as the statement submitted to the fourth meeting of the Conference of the Parties on behalf of the International Association for Impact Assessment, following its 18th annual meeting in Christchurch, New Zealand, in April 1998,

Noting the entry into force of the Economic Commission for Europe Convention on Environmental Impact Assessment in a Transboundary Context (the "Espoo Convention"), as an example of regional cooperation,

Concerning impact assessment

1. *Invites* Parties, Governments, national and international organizations, and indigenous and local communities embodying traditional lifestyles, to transmit to the Executive Secretary for the purpose of exchanging information and sharing experiences on:

(a) Impact assessments that consider environmental effects and inter-related socio-economic aspects relevant to biological diversity;

(b) Strategic environmental assessments;

(c) Ways and means of fully incorporating biodiversity considerations into environmental impact assessment procedures;

(d) Reports and case studies relating to environmental impact assessment in the thematic areas specifically referred to in its decisions, particularly with respect to biological diversity, including in respect of activities with transboundary implications and for environmental impacts having cumulative effects on biological diversity;

(e) Reports relating to existing legislation, experience with environmental impact assessment procedures and guidelines for environmental impact assessment, particularly with regard to the incorporation of biological diversity considerations into environmental impact assessment;

(f) Reports concerning the implementation of mitigating measures and incentive schemes to enhance compliance with existing national environmental impact assessment systems;

2. *Requests* the Executive Secretary to prepare a synthesis report based on the information contained in such submissions and other relevant in-

formation, for the consideration of the Subsidiary Body on Scientific, Technical and Technological Advice;

3. *Instructs* the Subsidiary Body on Scientific, Technical and Technological Advice to identify further actions that would promote implementation of the impact assessment procedures requested by Article 14 of the Convention, including consideration of whether there is a need for additional work to develop guidelines on the incorporation of biological diversity considerations into environmental impact assessment and to report to the Conference of the Parties;

4. *Recommends* that appropriate issues related to environmental impact assessment should be integrated into and become an integral component of relevant sectoral and thematic items under the programme of work of the Conference of the Parties;

5. *Requests* the Executive Secretary to make this information available through the clearing-house mechanism and other appropriate means;

6. *Encourages* the Executive Secretary to initiate collaboration between the Convention and other international organizations and bodies with expertise in this field and to seek co-operation, in particular with the Convention on Wetlands of International Importance, especially as Waterfowl Habitat and the Bonn Convention on the Conservation of Migratory Species, with the World Conservation Union (IUCN) and the International Association for Impact Assessment, with a view to drawing on their networks of professional expertise and sources of information and advice;

7. *Emphasizes* the need to enable active participation by interested and affected stakeholders in the assessment process, including indigenous and local communities embodying traditional lifestyles and non-governmental organizations;

Concerning liability and redress

8. *Invites* Parties, Governments and relevant international organizations to provide the Executive Secretary with information on national, international and regional measures and agreements on liability and redress applicable to damage to biological diversity, including the nature, scope and coverage of such provisions, and information on experiences in their implementation, as well as information regarding access by foreign citizens to national courts potentially applicable to or in cases involving trans-boundary environmental harm;

9. *Invites* Parties to include in their national reports information on actions taken with respect to liability and redress for damage to biological diversity;
10. *Requests* the Executive Secretary to prepare a synthesis report based on the information contained in submissions by Parties and other relevant information, for examination by the Conference of the Parties at its fifth meeting;
11. *Notes* that this decision is without prejudice to the consideration of the issue of liability and redress in the negotiation of the protocol on bio-safety.

DECISION

IV/11

**REVIEW OF THE EFFECTIVENESS
OF THE FINANCIAL MECHANISM**

The Conference of the Parties,

Recalling its decisions II/6 on financial resources and mechanism and III/7 on the review of the effectiveness of the financial mechanism,

Taking note of the synthesis report on the first review of the effectiveness of the financial mechanism, contained in document UNEP/CBD/COP/4/16,

Taking note also of the Statement of the First Assembly of the Global Environment Facility, held in New Delhi, India, from 1 to 3 April 1998, and the list of measures identified therein for the Global Environment Facility to improve its operational performance, and welcoming the second replenishment of the Global Environment Facility Trust Fund in the amount of US\$2.75 billion for its four focal areas,

Taking note of the report on the activities of the Global Environment Facility contained in document UNEP/CBD/COP/4/15,

Recalling the provisions of the Memorandum of Understanding between the Conference of the Parties and the Council of the Global Environment Facility, in particular paragraph 7 therein concerning the significance of inter-secretariat co-operation,

Welcoming the efforts made to date by the Global Environment Facility to address the concerns of Parties on the responsiveness of the financial mechanism to the policy, strategy, programme priorities and eligibility criteria established by the Conference of the Parties,

Taking into account the views and concerns expressed by Parties about the difficulties encountered in carrying out the first review, in particular the inadequacy of the procedures; and the insufficient information provided as compared with that requested in decision III/7,

Recalling decision II/6, paragraph 2, which calls for the effectiveness of the financial mechanism to be reviewed every three years,

Recognizing concerns expressed by several Parties about the need for implementing agencies to improve the processing and delivery systems of the Global Environment Facility, and *reaffirming* paragraph 1 of decision III/5 in this regard,

Recognizing also that further improvements are needed in the effectiveness of the financial mechanism,

1. *Determines* to further improve the effectiveness of the financial mechanism;
2. *Requests* the Council of the Global Environment Facility to take the action identified in the annex to the present decision with a view to improving the effectiveness of the financial mechanism, and further requests the Global Environment Facility to report thereon to the Conference of the Parties at its fifth meeting;
3. *Decides* that the Conference of the Parties at its fifth meeting will determine terms of reference for the second review of the effectiveness of the financial mechanism;
4. *Requests* the Executive Secretary to advise the Parties on matters relating to recommendations for further guidance to the financial mechanism with respect to:
 - (a) The relationship of any draft guidance to previous guidance; and

(b) Any possible effects of that draft guidance on the implementation of previous guidance from the Conference of the Parties.

Annex

ACTION TO IMPROVE THE EFFECTIVENESS OF THE FINANCIAL MECHANISM

1. The Council of the Global Environment Facility should improve the effectiveness of the financial mechanism by:

(a) Further streamlining its project cycle with a view to making project preparation simpler, more transparent and more country-driven;

(b) Further simplifying and expediting procedures for approval and implementation, including disbursement, for GEF-funded projects;

(c) Developing policies and procedures that fully comply with the guidance from the Conference of the Parties in a straightforward and timely manner;

(d) Increasing support to priority actions identified in national plans and strategies of developing countries;

(e) Applying in a more flexible, pragmatic and transparent manner the incremental cost principle;

(f) Promoting genuine country ownership through greater involvement of participant countries in GEF-funded activities;

(g) Increasing its flexibility to respond to the thematic longer-term programme of work of the Convention on Biological Diversity, in accordance with the guidance of the Conference of the Parties;

(h) Promoting the catalytic role of the Global Environment Facility in mobilizing funding from other sources for GEF-funded activities;

(i) Including in its monitoring and evaluation activities the assessment of the compliance under its operational programmes with the policy, strategy, program priorities and eligibility criteria established by the Conference of the Parties;

(j) Promoting efforts to ensure that the implementing agencies fully comply with the policy, strategy, programme priorities and eligibility criteria of the Conference of the Parties in their support for country-driven activities funded by the Global Environment Facility; and

(k) Undertaking efforts to improve the efficiency, effectiveness and transparency of the process of co-operation and coordination between the implementing agencies with a view to improving the processing and delivery systems of the Global Environment Facility, and to avoid duplication and parallel processes.

DECISION

IV/12

ADDITIONAL FINANCIAL RESOURCES

The Conference of the Parties,

Recalling Article 20, paragraphs 2 and 3, and Article 21, paragraph 4, of the Convention,

Recalling also decision III/6, by which it requested the Executive Secretary to explore possible ways of collaborating with funding institutions to facilitate efforts to achieve greater support for the Convention, and to explore further possibilities for encouraging the involvement of the private sector in support of the Convention,

Having examined the note by the Executive Secretary contained in document UNEP/CBD/COP/4/17,

Noting concerns expressed by Parties on the downward trend of development assistance in the past few years,

Noting also the lack of comprehensive information about trends in development assistance with respect to biological diversity,

Reaffirming the need to continue the implementation of decision III/6, paragraph 4, with regard to the provision of standardized information on financial support from developed country Parties for the objectives of the Convention on Biological Diversity,

Requests the Executive Secretary to prepare, for consideration by the Parties at the fifth meeting of the Conference of the Parties, a report on additional financial resources to include proposals for:

- (a) Monitoring financial support for the implementation of the Convention;
- (b) Possible collaboration with international organizations, institutions, conventions and agreements of relevance;
- (c) Exploring possibilities for additional financial support to elements in the programme of work outlined in decision IV/16, annex II;
- (d) Examining the constraints to, opportunities for and implications of private sector support for the implementation of the Convention.

DECISION

IV/13

**ADDITIONAL GUIDANCE TO THE
FINANCIAL MECHANISM**

The Conference of the Parties,

Bearing in mind Articles 20 and 21 of the Convention,

Taking into account the guidance provided by the Conference of the Parties at its first, second and third meetings to the Global Environment Facility,

Decides to provide the following additional guidance to the Global Environment Facility in the provision of financial resources, in conformity with decisions I/2, II/6 and III/5 of the Conference of the Parties. In this regard, the Global Environment Facility shall provide financial resources to developing countries for country-driven activities and programmes, consistent with national priorities and objectives, recognizing that economic and social development and poverty eradication are the first and overriding priorities of developing countries:

The Global Environment Facility should:

1. Provide adequate and timely support for country-driven projects at national, regional and subregional levels addressing the issue of alien species in accordance with decision IV/1 C [see p. 178];

2. Provide financial resources for country-driven activities within the context of its operation programmes to participate in the Global Taxonomy Initiative which take into account as appropriate, elements of the Suggestions for Action contained in the annex to decision IV/1 D;
3. Within the context of implementing national biological diversity strategies and action plans, provide adequate and timely support to eligible projects which help Parties to develop and implement national, sectoral and cross-sectoral plans for the conservation and sustainable use of biological diversity of inland water ecosystems in accordance with decision IV/4;
4. In accordance with decision IV/7 and with Article 7 of the Convention and also within the context of implementing national biological diversity strategies and plans, provide adequate and timely financial support to Parties for projects and capacity-building activities for implementing the programme of work of forest biological diversity at the national, regional and subregional levels and the use of the clearing-house mechanism to include activities that contribute to halting and addressing deforestation, basic assessments and monitoring of forest biological diversity, including taxonomic studies and inventories, focusing on forest species, other important components of forest biological diversity and ecosystems under threat;
5. In accordance with decision IV/2:
 - (a) Support capacity-building activities and country-driven pilot projects focused on priority areas, as critical components in the implementation of the clearing-house mechanism at the national, subregional, biogeographic, and regional levels, both during and after the pilot phase;
 - (b) Provide, as appropriate, increased support, in the framework of country-driven projects to promote the objectives of the Convention, to establish and strengthen biodiversity information systems such as, *inter alia*, training, technology and processes related to the collection, organization, maintenance and updating of data and information and its communication to users through the clearing-house mechanism;
 - (c) Evaluate at the end of the clearing-house mechanism pilot phase the experience of the Global Environment Facility's support for developing countries' activities, to consider additional efforts to meet the increasing interest in taking part in and having access to the clearing-house mechanism, including in regional networking, and to report to the Conference of the Parties prior to the next meeting of the Subsidiary Body on Scientific, Technical and Technological Advice;

6. Continue to provide financial assistance for the preparation of national reports, having regard to the constraints and needs identified by Parties in their first national reports, in accordance with decision IV/14;

7. Provide adequate and timely support for the design and approaches relevant to the implementation of incentive measures, including, where necessary, assessment of biological diversity of the relevant ecosystems, capacity-building necessary for the design and implementation of incentive measures and the development of appropriate legal and policy frameworks, and projects with components that provide for these incentives, in accordance with decision IV/10;

8. In accordance with decision IV/8, provide support for:

(a) Stock-taking activities, such as, for example, assessments of current legislative, administrative and policy measures on access to genetic resources and benefit-sharing, evaluation of the strengths and weaknesses of a country's institutional and human capacity, and promotion of consensus-building among its different stakeholders;

(b) Formulation of access and benefit-sharing mechanisms at the national, subregional and regional levels, including monitoring, assessment, and incentive measures;

(c) Capacity-building on measures on access to genetic resources and sharing of benefits, including capacity-building on economic valuation of genetic resources;

(d) Within biodiversity projects, other specific benefit-sharing initiatives such as support for entrepreneurial developments by local and indigenous communities, facilitation of financial sustainability of projects promoting the sustainable use of genetic resources, and appropriate targeted research components.

DECISION

IV/14

NATIONAL REPORTS BY PARTIES

The Conference of the Parties,

Recalling Article 26 and Article 23, paragraph 4 (a) of the Convention,

Recalling further decision II/17 on the form and intervals of national reports,

Noting the difficulty experienced by Parties in preparing their national reports and that the first national reports varied in length and scope and that further guidelines are needed to simplify and streamline the national reporting process,

Welcoming the number of first national reports received by the Executive Secretary,

1. *Encourages* those Parties that have submitted interim reports to submit a full report as soon as they are in a position to do so, and urges those that have yet to submit their first national report to do so as soon as they can and, in any event, no later than 31 December 1998;
2. *Requests* the Executive Secretary to prepare, in time for the fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, a revised version of the report referred to in decision II/17 on the basis of the national reports received and other relevant information;
3. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice, at its fourth meeting, to consider the report of the Executive Secretary and to provide the Conference of the Parties, at its fifth meeting, with advice on the intervals and form of future national reports, taking into account the elements contained in the annex to the present decision. This advice should cover the nature of the information needed from Parties in order to assess the state of implementation of the Convention; recommendations on improving the reporting process, through guidelines on format, style, length and treatment with a view to ensuring

comparability between national reports; and identification of ways and means to further facilitate national implementation of the Convention;

4. *Urges* developed country Parties to include in their national reports information, in a standardized form, on their financial support for the objectives of the Convention;

5. *Requests* the Global Environment Facility, as the operating entity of the financial mechanism, to continue to provide financial assistance for the preparation of national reports, having regard to the constraints and needs identified by Parties in their first national reports.

Annex

ELEMENTS FOR THE RECOMMENDATION OF THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE ON THE PREPARATION OF NATIONAL REPORTS

1. A standard format should be developed which would allow comparability, but provide enough flexibility to give appropriate scope to reflect national conditions and capacities.

2. The focus of subsequent national reports should be consistent with the work programme of the Convention, taking into account decisions of the fourth meeting of the Conference of the Parties.

3. Information contained in national reports should include, insofar as possible, a report on the progress of the implementation of the National Biodiversity Strategy and Action Plans, and on lessons learned, including identification of gaps in national capacity for policy research and analysis, along with technical and financial requirements for meeting needs identified in the National Biodiversity Strategies and Action Plans and the possible use of nationally developed indicators.

4. Parties are encouraged to consider the participation of all relevant stakeholders in the preparation and use of national reports.

DECISION

IV/15

THE RELATIONSHIP OF THE CONVENTION ON BIOLOGICAL DIVERSITY WITH THE COMMISSION ON SUSTAINABLE DEVELOPMENT AND BIODIVERSITY-RELATED CONVENTIONS, OTHER INTERNATIONAL AGREEMENTS, INSTITUTIONS AND PROCESSES OF RELEVANCE

The Conference of the Parties,

Recalling its decisions II/13, III/17 and III/21,

Recalling also Article 16, paragraph 5, Article 22, paragraph 1, Article 23, paragraph 4 (*h*), and Article 24, paragraph 1 (*d*), of the Convention on Biological Diversity,

Reaffirming the importance of mutually supportive activities under the Convention on Biological Diversity and activities under other conventions, processes and institutions relevant to the achievement of the objectives of the Convention, while avoiding unnecessary duplication of activities and costs on the part of Parties and the organs of the Convention,

Welcoming the progress made in the development of cooperative arrangements with relevant conventions, institutions and processes as reported by the Executive Secretary to its fourth meeting, while *recognizing* the need to further improve the method of work of the Conference of the Parties in terms of assessing work done in the context of these cooperative arrangements,

Noting that the Commission on Sustainable Development in its review of the implementation of Agenda 21, at the next comprehensive review of progress achieved in the implementation of Agenda 21 by the General Assembly in the year 2002, will require input on the status of implementation of the Convention on Biological Diversity,

1. *Expresses* its appreciation to those conventions and institutions that provided documentation and information to the Conference of the Parties at its fourth meeting;
2. *Endorses* the Joint Work Plan with the Convention on Wetlands of International Importance, especially as Waterfowl Habitat (Ramsar) contained in UNEP/CBD/COP/4/Inf.8 [see p. 116], as recommended by decisions III/21 and IV/4 as a framework for enhanced co-operation between these conventions and encourages its implementation;
3. *Also endorses* the memoranda of co-operation entered into by the Executive Secretary with: the Intergovernmental Oceanographic Commission, the World Bank, the Food and Agriculture Organization of the United Nations (FAO), the World Conservation Union (IUCN), the Cartagena Convention, the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the United Nations Conference on Trade and Development (UNCTAD);
4. *Requests* that the Executive Secretary, on behalf of the Conference of the Parties, consider matters of liaison, co-operation and collaboration as a key responsibility;
5. *Requests* the Executive Secretary to continue to coordinate with the secretariats of relevant biodiversity-related conventions, institutions and processes, and to cooperate with related processes at regional and sub-regional levels, with a view to:
 - (a) Facilitating the exchange of information and experience;
 - (b) Exploring the possibility of procedures for promoting efficiencies between the reporting requirements of Parties under those instruments and conventions;
 - (c) Exploring the possibility of developing joint work programmes, similar to that between the Convention on Biological Diversity and the Convention on Wetlands referred to above, between the Convention on Biological Diversity and other relevant institutions and conventions;
 - (d) Exploring modalities, where appropriate, for suitable liaison arrangements in relevant centres, in particular Geneva and/or New York, for the purpose of enhancing linkages with relevant processes, which will assist in achieving greater coherence in these intergovernmental organizations and processes;
6. *Encourages* the Executive Secretary to develop relationships with other processes with a view to fostering good management practices in

areas such as: methods and approaches to deal with protected areas; ecosystem and bioregional approaches to protected area management and sustainable use of biological diversity; mechanisms to enhance stakeholder involvement; methods for developing systems plans and integrating biological diversity considerations into sectoral strategies and plans; and transboundary protected areas;

7. *Takes note* of the Executive Secretary's observer status in the Committee on Trade and Environment of the World Trade Organization for the purpose of representing the Convention on Biological Diversity in meetings whose agendas have relevance to the Convention;

8. *Also notes* that some Parties to the Convention on Biological Diversity, particularly many developing countries, are not members of the World Trade Organization, and are therefore limited in their abilities to present their concerns regarding biological diversity at the World Trade Organization;

9. *Stresses* the need to ensure consistency in implementing the Convention on Biological Diversity and the World Trade Organization agreements, including the Agreement on Trade-Related Aspects of Intellectual Property Rights, with a view to promoting increased mutual supportiveness and integration of biological diversity concerns and the protection of intellectual property rights, and invites the World Trade Organization to consider how to achieve these objectives in the light of Article 16, paragraph 5, of the Convention, taking into account the planned review of Article 27, paragraph 3 (b), of the Agreement on Trade-Related Aspects of Intellectual Property Rights in 1999;

10. *Emphasizes* that further work is required to help develop a common appreciation of the relationship between intellectual property rights and the relevant provisions of the Agreement on Trade-Related Aspects of Intellectual Property Rights and the Convention on Biological Diversity, in particular on issues relating to technology transfer and conservation and sustainable use of biological diversity and the fair and equitable sharing of benefits arising out of the use of genetic resources, including the protection of knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity;

11. *Requests* the Executive Secretary to enhance co-operation with the World Intellectual Property Organization with respect to the Organization's programme of work;

12. *Also requests* the Executive Secretary to prepare a report on the implementation of the Convention to assist the Conference of the Parties to contribute to the review of the implementation of Agenda 21 in the year 2002;

13. *Further requests* the Executive Secretary to strengthen relationships with, in particular, the United Nations Framework Convention on Climate Change and its Kyoto Protocol, and the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa, with a view to making implementation activities and institutional arrangements mutually supportive;

14. *Takes note* of the Programme for the further implementation of Agenda 21 and requests Parties to submit information to the Executive Secretary on, *inter alia*:

(a) Current threats to biological diversity from tourism activities;

(b) Basic approaches, strategies and instruments that demonstrate where tourism and the conservation and sustainable use of biological diversity are mutually supportive;

(c) The involvement of the private sector, local and indigenous communities in establishing sustainable tourism practices;

(d) Collaborative efforts at the regional and the subregional levels, including case studies of particular relevance;

(e) Infrastructure planning and regional and land-use planning for tourism that have incorporated consideration of the Convention on Biological Diversity; or

(f) Consideration of policies and activities which are supportive of its aims, in order to initiate a process of exchange of experiences, knowledge and best practices, under the Subsidiary Body on Scientific, Technical and Technological Advice, in particular at the national and regional levels on sustainable tourism and biological diversity within the framework of the Convention on Biological Diversity, including regarding protected areas;

15. *Further invites* Parties to provide information to the Executive Secretary on the biodiversity-related activities of the Commission on Sustainable Development, such as:

(a) Comprehensive review of the Programme of Action for the Sustainable Development of Small Island Developing States;

- (b) Oceans and seas, and freshwater resources;
- (c) Consumption and production patterns;

16. *Requests* the Executive Secretary to provide inputs based on the above submissions to the discussion at the Commission on Sustainable Development at its seventh session to ensure that any future work of the Commission on Sustainable Development in these areas fully incorporates biological diversity considerations and makes full use of existing materials and national guidelines;

17. *Requests* the Executive Secretary to report to the Conference of the Parties at its fifth meeting on the collaborative efforts with the Commission on Sustainable Development and with the Committee on Trade and Environment of the World Trade Organization, including suggestions for improving this relationship.

DECISION

IV/16

INSTITUTIONAL MATTERS AND THE PROGRAMME OF WORK

The Conference of the Parties,

Recognizing the urgency of the effective and full implementation of the Convention,

Aware of the difficulties experienced in the operations of the Convention and in achieving its full and effective implementation,

Recalling the primacy of the role of the Conference of the Parties as provided for in Article 23, paragraph 4, of the Convention,

Conscious of the need to achieve the full participation of Parties in the implementation of the Convention and emphasising the need for open and transparent preparations for the Conference of the Parties,

Underscoring the need for the Subsidiary Body on Scientific, Technical and Technological Advice to focus on scientific, technical and technological aspects of the Convention in accordance with its Article 25,

1. *Decides* that the fifth meeting of the Conference of the Parties will take place in the second quarter of 2000 for a period of two weeks;
2. *Decides also* to hold an open-ended meeting to consider possible arrangements to improve preparations for and conduct of the meetings of the Conference of the Parties, taking into account proposals made at the fourth meeting of the Conference of the Parties, including a preparatory discussion of the item on access to genetic resources on the agenda of the fifth meeting of the Conference of the Parties. This meeting will be of three days duration and is to be held in conjunction with one of the meetings planned for 1999;
3. *Requests* the Executive Secretary to analyse for the meeting described in paragraph 2 of the present decision the development and experience of other conventions and agreements and their potential relevance to the work of the Convention;
4. *Decides* to consider at its fifth meeting the results of the meeting described in paragraph 2 of the present decision and the experience gained from the changes in the functioning of the Convention included in the present decision, with a view to taking a decision on the need for further measures to improve preparations for and conduct of meetings of the Conference of Parties;
5. *Requests* the Executive Secretary, subject to necessary voluntary contributions, to organize regional/subregional meetings to consider ways and means of implementing the Convention and the decisions of the Conference of the Parties;
6. *Requests* the Executive Secretary when preparing the provisional annotated agenda to clearly indicate whether matters are for information or for consideration and when preparing the supporting documentation to include suggestion of elements for draft decisions as appropriate;
7. *Invites* Parties to forward any proposed decisions to the Executive Secretary in sufficient time to enable him/her to circulate those draft decisions to all Parties at least three weeks before the commencement of meetings of the Conference of the Parties;

8. *Requests* the Executive Secretary to distribute the provisional annotated agenda for ordinary meetings of the Conference of the Parties as well as the principal documents for the meeting, in the official languages of the United Nations, as early as possible and in reasonable time for any regional preparatory meetings organized by the Executive Secretary and, in any event, preferably six months before the opening of its ordinary meetings;
9. *Invites* Parties to notify the Executive Secretary of any additional items they wish to add to the provisional agenda at least six weeks before the opening of the meeting;
10. *Requests* the Executive Secretary to prepare, in time for the next meeting of the Conference of the Parties, a handbook that relates the decisions of the Conference of the Parties, and other material relevant to the operation of the Convention, as well as to the text of the Convention;
11. *Adopts* the *modus operandi* of the Subsidiary Body on Scientific, Technical and Technological Advice as set out in annex I to the present decision;
12. *Decides* that the Subsidiary Body on Scientific, Technical and Technological Advice shall hold two meetings, each of five days duration, before next ordinary meeting of the Conference of the Parties;
13. *Decides* that, while the Subsidiary Body on Scientific, Technical and Technological Advice should consider the financial implications of its proposals, its recommendations will only include advice to the Conference of the Parties regarding financial matters, including guidance to the financial mechanism, when the Conference of the Parties has so requested;
14. *Decides also* that in future requests to the Subsidiary Body on Scientific, Technical and Technological Advice, the Conference of the Parties will make clear whether it expects to receive information for noting, recommendations for approval, or advice for decisions by the Conference of Parties, and that, likewise, the Subsidiary Body on Scientific, Technical and Technological Advice, when submitting recommendations to the Conference of the Parties, should indicate clearly whether it expects the Conference of the Parties to note, approve or decide on the matter in question;
15. *Requests* its Bureau to liaise on a regular basis with the bureaux of its subsidiary bodies, in particular the Bureau of the Subsidiary Body on

Scientific, Technical and Technological Advice, and, to this end, *requests* the Executive Secretary to organize wherever possible back-to-back meetings of the bureaux of the Conference of the Parties and the Subsidiary Body on Scientific, Technical and Technological Advice;

16. *Adopts* the programme of work for the period from the fourth meeting of the Conference of the Parties until the seventh meeting of the Conference as contained in annex II to the present decision;

17. *Recognizes* that it may be necessary for the Executive Secretary, with the guidance of the Bureau of the Conference of the Parties, to adjust further the servicing of the programme of work in light of the resources available to the Secretariat;

18. *Decides* to review the programme of work at each ordinary meeting of the Conference, in the light of developments in the implementation of the Convention;

19. *Requests* the Executive Secretary to prepare the provisional agenda of the fifth meeting of the Conference of the Parties in agreement with the President within the framework of the programme of work contained in annex II to the present decision;

20. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice and other subsidiary bodies to prepare proposals for their programmes of work based on the priorities set out in annex II to the present decision, with a view to streamlining and focusing the agendas of their meetings;

21. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice, taking into account its proposals for the programme of work developed under paragraph 16 of the present decision, to advise the fifth meeting of the Conference of the Parties of the terms of reference for the ad hoc technical expert groups on thematic areas. The terms of reference should take into account the need, *inter alia*, to provide a peer-reviewed scientific and technical assessment of the status and trends of, and impacts on, biological diversity, including the effectiveness of the types of measures for conservation and sustainable use of biological diversity.

Annex I

MODUS OPERANDI OF THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE

I. Functions

1. The functions of the Subsidiary Body on Scientific, Technical and Technological Advice are those contained in Article 25 of the Convention. Accordingly, the Subsidiary Body on Scientific, Technical and Technological Advice will fulfil its mandate under the authority of, and in accordance with, guidance laid down by the Conference of the Parties, and upon its request.
2. Pursuant to Article 25, paragraph 3, of the Convention, the functions, terms of reference, organization and operation of the Subsidiary Body on Scientific, Technical and Technological Advice may be further elaborated, for approval by the Conference of the Parties.

II. Rules of procedure

3. The rules of procedure for meetings of the Conference of the Parties to the Convention on Biological Diversity shall apply, in accordance with rule 26, paragraph 5, *mutatis mutandis* to the proceedings of the Subsidiary Body on Scientific, Technical and Technological Advice. Therefore, rule 18, on credentials, will not apply.
4. In accordance with rule 52, the official and working languages of the Subsidiary Body on Scientific, Technical and Technological Advice will be those of the United Nations Organization. The proceedings of the Subsidiary Body on Scientific, Technical and Technological Advice will be carried out in the working languages of the Conference of the Parties.
5. In order to facilitate continuity in the work of the Subsidiary Body on Scientific, Technical and Technological Advice and taking into account the technical and scientific character of the input of the Subsidiary Body, the terms of office of members of its Bureau will be two years. At each meeting of the Subsidiary Body on Scientific, Technical and Technological Advice one of the two regional representatives shall be elected in order to achieve staggered terms of office. The members of the Bureau of

the Subsidiary Body will take office at the end of the meeting at which they are elected.

6. The Chairman of the Subsidiary Body on Scientific, Technical and Technological Advice, elected at an ordinary meeting of the Conference of the Parties, shall take office from the end of the next ordinary meeting of the Subsidiary Body on Scientific, Technical and Technological Advice and remain in office until his/her successor takes office. As a general rule the chairmanship of the Subsidiary Body shall rotate among United Nations regional groups. Candidates for the Chair of the Subsidiary Body should be recognized experts, qualified in the field of biological diversity and experienced in the process of the Convention and the Subsidiary Body on Scientific, Technical and Technological Advice.

III. Frequency and timing of meetings of the Subsidiary Body on Scientific, Technical and Technological Advice

7. The Subsidiary Body on Scientific, Technical and Technological Advice shall meet at intervals to be determined by the Conference of the Parties and sufficiently in advance of each regular meeting of the Conference of the Parties, for a duration to be determined by the Conference of the Parties which should not normally exceed five days. The number and length of the meetings and activities of the Subsidiary Body on Scientific, Technical and Technological Advice and its organs should be reflected in the budget adopted by the Conference of the Parties or other sources of extra budgetary funding.

IV. Documentation

8. The documentation prepared for meetings will be distributed three months before the meeting in the working languages of the Subsidiary Body on Scientific, Technical and Technological Advice, will be concrete, focused draft technical reports and will include proposed conclusions and recommendations for consideration of the Subsidiary Body on Scientific, Technical and Technological Advice.

9. To facilitate the preparation of documentation, and in order to avoid duplication of efforts and ensure the use of available scientific, technical and technological competence available within international and regional organizations, including non-governmental organizations and scientific unions and societies, qualified in fields relating to conservation and sus-

tainable use of biodiversity, the Executive Secretary may establish, in consultation with the Chairman and the other members of the Bureau of the Subsidiary Body, liaison groups, as appropriate. Such liaison groups will depend on the resources available.

V. Organization of work during the meetings

10. Each meeting of the Subsidiary Body on Scientific, Technical and Technological Advice will propose to the Conference of the Parties, in light of the programme of work for the Conference of the Parties and the Subsidiary Body, a particular theme as the focus of work for the following meeting of the Subsidiary Body.

11. Two open-ended sessional working groups of the Subsidiary Body on Scientific, Technical and Technological Advice could be established and operate simultaneously during meetings of the Subsidiary Body. They shall be established on the basis of well-defined terms of reference, and will be open to all Parties and observers. The financial implications of these arrangements should be reflected in the budget of the Convention.

VI. Ad hoc technical expert group meetings

12. A limited number of ad hoc technical expert groups on specific priority issues on the programme of work of the Subsidiary Body on Scientific, Technical and Technological Advice may be established, as required, for a limited duration. The establishment of such ad hoc technical expert groups would be guided by the following elements:

(a) The ad hoc technical expert groups should draw on the existing knowledge and competence available within, and liaise with, international, regional and national organizations, including non-governmental organizations and the scientific community in fields relevant to this Convention;

(b) The Executive Secretary will nominate scientific and technical experts drawn from the roster for the ad hoc technical experts groups in consultation with the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice. The ad hoc technical expert groups shall be composed of no more than fifteen experts competent in the relevant field of expertise, with due regard to geographical representation and to

the special conditions of least-developed countries and small island developing States;

(c) The Subsidiary Body on Scientific, Technical and Technological Advice will recommend the exact duration and specific terms of reference, when establishing such expert groups for the approval of the Conference of the Parties;

(d) Expert groups will be encouraged to use innovative means of communication and to minimize the need for face-to-face meetings;

(e) The ad hoc technical expert groups may also convene meetings parallel to the proceedings of the Subsidiary Body on Scientific, Technical and Technological Advice;

(f) Reports produced by the ad hoc technical expert groups should, as a general rule be submitted for peer review;

(g) All efforts will be made to provide adequate voluntary financial assistance for the participation of experts in the expert groups from developing countries and countries with economies in transition Parties; and

(h) The number of ad hoc technical expert groups active each year will be limited to the minimum necessary and will depend on the amount of resources designated to the Subsidiary Body by the Conference of the Parties in its budget or on the availability of extra-budgetary resources.

VII. Contribution of non-governmental organizations

13. The scientific and technical contribution of non-governmental organizations to the fulfilment of the mandate of the Subsidiary Body will be strongly encouraged in accordance with the relevant provisions of the Convention and the rules of procedure for meetings of the Conference of the Parties.

VIII. Co-operation with other relevant bodies

14. The Subsidiary Body on Scientific, Technical and Technological Advice shall cooperate with other relevant international, regional and national organizations, under the guidance of the Convention of the Parties, thus building upon the vast experience and knowledge available.

15. In this context, the Subsidiary Body on Scientific, Technical and Technological Advice emphasizes the importance of research to further increase available knowledge and reduce uncertainties, and recommends

that the Conference of the Parties consider this issue in relation to the financial resources required for the effective implementation of the Convention.

IX. Regional and subregional preparatory meetings

16. Regional and subregional meetings for the preparation of regular meetings of the Subsidiary Body on Scientific, Technical and Technological Advice may be organized as appropriate for specific items. The possibility of combining such meetings with other scientific regional meetings, in order to make maximum use of available resources, should be considered. The convening of such regional and subregional meetings will be subject to the availability of voluntary financial contributions.

17. The Subsidiary Body on Scientific, Technical and Technological Advice should, in the fulfilment of its mandate, draw upon the contributions of the existing regional and subregional intergovernmental organizations or initiatives.

X. Focal points

18. A list of focal points and focal persons to the Subsidiary Body on Scientific, Technical and Technological Advice shall be established and regularly updated by the Executive Secretary, on the basis of information provided by Parties and other relevant regional, subregional and intergovernmental organizations.

XI. Roster of experts

19. Rosters of experts in the relevant fields of the Convention will be compiled by the Executive Secretary on the basis of input from Parties and, as appropriate, from other countries and relevant bodies. The rosters will be administered by the Executive Secretary in an efficient, effective and transparent manner. The Executive Secretary together with the national focal points and relevant bodies, will regularly update the rosters of experts, including the information on each expert. The information on the rosters will be made accessible through the clearing-house mechanism, save to the extent that an expert objects to information concerning him/her being released.

20. The Executive Secretary as well as the ad hoc technical expert groups and liaison groups referred to above, should make full use of such rosters of experts, *inter alia*, through the type of consultations as described in paragraph 21 below. The Executive Secretary will inform Parties, at least one month prior to the convening of a meeting of experts, of the details of the meeting and of the experts invited.

21. The experts on the rosters are invited to make available, upon request of the Executive Secretary, Parties or other countries and relevant bodies, their specific expertise in order to contribute to the further development of the scientific, technical and technological issues of the work programme of the Convention on Biological Diversity. Such requests could entail, *inter alia*, peer reviews, questionnaires, clarifications or examinations of scientific, technological and technical issues, specific contributions to the compilation of documents, participation in global and regional workshops and assisting in connecting the Convention-process to international, regional and national scientific, technical and technological processes.

Annex II

THE PROGRAMME OF WORK

<i>Meeting of the Conference of the Parties</i>	<i>Items for in-depth consideration</i>
Fifth	Dryland, mediterranean, arid, semi-arid, grassland and savannah ecosystems Sustainable use, including tourism Access to genetic resources
Sixth	Forest ecosystems Alien species Benefit-sharing
Seventh	Mountain ecosystems Protected areas Transfer of technology and technology co-operation

DECISION

IV/17

**PROGRAMME BUDGET FOR THE BIENNIUM
1999-2000**

The Conference of the Parties,

Recalling paragraph 7 of the financial rules for the Conference of the Parties,

Recalling also decisions III/23 and III/24, adopted at its third session,

Having considered the proposed budget for the biennium 1999-2000 submitted by the Executive Secretary,

1. *Endorses* the administrative arrangements between the United Nations Environment Programme and the Secretariat of the Convention on Biological Diversity, contained in annex III of document UNEP/CBD/COP/4/24, which entered into force on 30 June 1997, and *requests* the Executive Secretary to report regularly to the Conference of the Parties, through its Bureau, on the implementation of its provisions;
2. *Approves* the programme budget for the biennium 1999-2000, amounting to US\$ 17,301,600 for the purposes specified in table 1 below;
3. *Notes* the statement of the Trustee that there is an accumulated surplus in the amount of US\$ 3,616,566 and *decides* to use this amount on an exceptional basis to offset the contributions from Parties during the biennium 1999-2000;
4. *Welcomes* the annual contribution of US\$ 1,000,000 by the host Government to offset the contributions from Parties for the biennium 1999-2000;
5. *Approves* the staffing table for the programme budget as contained in table 2 below and *requests* that all staff positions be filled expeditiously;

6. *Decides* that the three Trust Funds (BY, BE, BZ) for the Convention shall be extended for the period of two years, beginning 1 January 2000 and ending 31 December 2001;
7. *Authorizes* the Executive Secretary to make transfers, between each of the main appropriation lines set out in table 1 below, up to an aggregate limit of 15 per cent of the total estimated for those appropriation lines, provided that a further limitation of up to a maximum 25 per cent of each such appropriation line shall apply;
8. *Invites* all Parties to the Convention to note that contributions to the core budget are due on 1 January of each year in accordance with paragraph 4 of the financial rules and to pay promptly and in full, for each of the years 1999 and 2000, the contributions required to finance expenditures approved under paragraph 2 above, as offset by surpluses noted in paragraph 3 and contributions noted under paragraph 4 of the present decision and, in this regard, *requests* the Executive Secretary to notify all Parties of the amount of their contributions by 1 October of the year preceding the year in which their contributions are due;
9. *Urges* all Parties and States not Parties to the Convention, as well as governmental, intergovernmental and non-governmental organizations and other sources, to contribute to the special trust funds;
10. *Approves* the supplementary amount of US\$ 542,400 to the 1998 budget for the additional activity related to the Biosafety Protocol, to be drawn from the surpluses in addition to those referred to in paragraph 3 above;
11. *Decides* that the amount of US\$ 300,000 for servicing of the Working Group on Article 8(j) shall be financed from the surpluses in addition to those referred to in paragraph 3 above;
12. *Takes note* of the funding estimates for the Special Voluntary Trust Fund (BE) for Additional Voluntary Contributions in Support of Approved Activities for the Biennium 1999-2000 specified by the Executive Secretary and included in Table 3 below, and *invites* Parties to make contributions to this fund;
13. *Takes note* of the funding estimates for the Special Voluntary Trust Fund (BZ) for Facilitating Participation of Parties in the Convention Process for the Biennium 1999-2000 specified by the Executive Secretary and included in table 4 below, and *invites* Parties to make contributions to this fund;

14. *Authorizes* the Trustee to transfer the unspent balance of additional special voluntary contributions received prior to 1997 from the Trust Fund for the Convention (BY) to the Special Trust Fund (BE) for additional activities approved by the Conference of the Parties and *requests* the Executive Secretary to consult with the original donor country/countries on the use of these funds for additional activities approved by the Conference of the Parties;

15. *Requests* the Executive Secretary to report to the Conference of the Parties at its fifth session on income and budget performance, and to propose any adjustments that might be needed in the Convention budget for the biennium 1999-2000.

TABLE I
BIENNIUM BUDGET OF THE TRUST FUND FOR THE CONVENTION
ON BIOLOGICAL DIVERSITY 1999-2000

(Thousands of United States dollars)

	1999	2000
<i>Expenditure</i>		
I. Programmes		
Executive direction and management and intergovernmental Affairs	813.51	839.1
Scientific, technical and technological matters	1 989.7	2 069.9
Implementation and communication	1 979.8	1 600.2
Biosafety Protocol	1 275.2	1 078.8
Support Service	1 289.6	1 375.4
Subtotal (I)	7 347.8	7 963.4
II. Payments to the United Nations Environment Programme		
Programme support costs	955.2	1 035.2
Subtotal (II)	955.2	1 035.2
III. Contingencies		
Subtotal (III)	0.0	0.0
Total Expenditure Lines (I + II + III)	8 303.0	8 998.6
<i>Income</i>		
I. Contribution from the host Government		
II. Savings from previous years (surplus)	1 000.0	1 000.0
Total Income	1 603.0	2 013.6
Budget to be shared by Parties	5 700.0	5 985.0

TABLE 2
STAFFING TABLE
1999-2000

	1998	1999	2000
A. Professional category and above			
D-2	1	1	1
D-1	3	3	3
P-5	1	1	1
P-4	7	10	10
P-3	5	9	9
P-2	5	3	3
Total A	22	27	27
B. General service category	18	20	20
Total B	18	20	20
TOTAL (A+B)	40	47	47

TABLE 3
SPECIAL VOLUNTARY TRUST FUND (BE) FOR ADDITIONAL
VOLUNTARY CONTRIBUTIONS IN SUPPORT OF APPROVED ACTIVITIES
FOR THE BIENNIUM 1999-2000
(thousands of United States dollars)

	1999	2000
A. <i>Servicing meetings</i>		
Regional meetings for the Conference of the Parties	186.2	0.0
Expert meetings and workshops	482.6	427.2
B. Travel	1 847.5	1 673.4
C. Consultants	15.0	15.8
D. Printing of materials	60.0	0.0
Subtotal (I)	2 591.3	2 116.4
II. Payments to the United Nations Environment Programme support costs	336.9	275.1
Subtotal (II)	336.9	275.1
Total Expenditure Lines (I + II)	2 928.2	2 391.5
Total Proposed Income	0.0	0.0
Budget to be financed from voluntary contributions	2 928.2	2 391.5

TABLE 4
SPECIAL VOLUNTARY TRUST FUND (BZ) FOR FACILITATING
PARTICIPATION OF PARTIES IN THE CONVENTION PROCESS FOR
THE BIENNIUM 1999-2000(*)

(thousands of United States dollars)

	1999	2000
Conference of the Parties	0	837.4
Regional meetings for the Conference of the Parties	525.6	0.0
Subsidiary Body on Scientific, Technical and Technological Advice	406.0	559.5
Working Group on Article 8(j)	406.0	559.5
Inter-sessional meeting on <i>modus operandi</i> and access/ benefit-sharing	319.0	0.0
Biosafety Working Group 6/COP	725.0	0.0
Intergovernmental Committee	0.0	685.1
Subtotal (I)	2 381.6	2 641.5
II. Payments to the United Nations Environment Programme		
Programme support costs	309.6	343.4
Subtotal (II)	309.6	343.4
Total Expenditure Lines (I + II)	2 691.2	2 984.9
Total Income	0.0	0.0
Budget to be financed from voluntary contributions	2 691.2	2 984.9

(*) Developing Country Parties, in particular the least developed and small island developing States, and other Parties with economies in transition.

TABLE 5
CONTRIBUTIONS TO THE TRUST FUND FOR THE CONVENTION ON
BIOLOGICAL DIVERSITY FOR THE BIENNIUM 1999-2000

Party	United Nations scale of assessment 1999 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 1999 (US\$)	United Nations scale of assessment 2000 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 2000 (US\$)	Total contributions 1999-2000 (US\$)
	Albania	0.003	0.004	226	0.003	0.004	240
Algeria	0.094	0.124	7,075	0.086	0.115	6,877	13,952
Angola	0.010	0.013	753	0.010	0.013	800	1,552
Antigua and Barbuda	0.002	0.003	151	0.002	0.003	160	310
Argentina	1.024	1.352	77,074	1.103	1.474	88,201	165,275
Armenia	0.011	0.015	828	0.006	0.008	480	1,308
Australia	1.482	1.957	111,547	1.483	1.981	118,588	230,134
Austria	0.941	1.243	70,827	0.942	1.259	75,327	146,154

Party	United Nations scale of assessment 1999 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 1999 (US\$)	United Nations scale of assessment 2000 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 2000 (US\$)	Total contributions 1999-2000 (US\$)
Bahamas	0.015	0.020	1,129	0.015	0.020	1,199	2,328
Bahrain	0.017	0.022	1,280	0.017	0.023	1,359	2,639
Bangladesh	0.010	0.013	753	0.010	0.013	800	1,552
Barbados	0.008	0.011	602	0.008	0.011	640	1,242
Belarus	0.082	0.108	6,172	0.057	0.076	4,558	10,730
Belgium	1.103	1.456	83,020	1.104	1.475	88,281	171,301
Belize	0.001	0.001	75	0.001	0.001	80	155
Benin	0.002	0.003	151	0.002	0.003	160	310
Bhutan	0.001	0.001	75	0.001	0.001	80	155
Bolivia	0.007	0.009	527	0.007	0.009	560	1,087
Botswana	0.010	0.013	753	0.010	0.013	800	1,552
Brazil	1.470	1.941	110,644	1.471	1.965	117,628	228,272
Bulgaria	0.019	0.025	1,430	0.011	0.015	880	2,310
Burkina Faso	0.002	0.003	151	0.002	0.003	160	310
Burundi	0.001	0.001	75	0.001	0.001	80	155
Cambodia	0.001	0.001	75	0.001	0.001	80	155
Cameroon	0.013	0.017	978	0.013	0.017	1,040	2,018
Canada	2.754	3.637	207,287	2.732	3.650	218,464	425,751
Cape Verde	0.002	0.003	151	0.002	0.003	160	310
Central African Republic	0.001	0.001	75	0.001	0.001	80	155
Chad	0.001	0.001	75	0.001	0.001	80	155
Chile	0.131	0.173	9,860	0.036	0.048	2,879	12,739
China	0.973	1.285	73,236	0.995	1.329	79,565	152,800
Colombia	0.109	0.144	8,204	0.109	0.146	8,716	16,920
Comoros	0.001	0.001	75	0.001	0.001	80	155
Congo	0.003	0.004	226	0.003	0.004	240	466
Cook Islands	0.001	0.001	75	0.001	0.001	80	155
Costa Rica	0.016	0.021	1,204	0.016	0.021	1,279	2,484
Cote d'Ivoire	0.009	0.012	677	0.009	0.012	720	1,397
Croatia	0.036	0.048	2,710	0.030	0.040	2,399	5,109
Cuba	0.026	0.034	1,957	0.024	0.032	1,919	3,876
Cyprus	0.034	0.045	2,559	0.034	0.045	2,719	5,278
Czech Republic	0.121	0.160	9,107	0.107	0.143	8,556	17,664
Democratic People's Republic of Korea	0.019	0.025	1,430	0.015	0.020	1,199	2,630
Democratic Republic of the Congo	0.007	0.009	527	0.007	0.009	560	1,087
Denmark	0.691	0.912	52,010	0.692	0.925	55,336	107,346
Djibouti	0.001	0.001	75	0.001	0.001	80	155
Dominica	0.001	0.001	75	0.001	0.001	80	155
Dominican Republic	0.015	0.020	1,129	0.015	0.020	1,199	2,328
Ecuador	0.020	0.026	1,505	0.020	0.027	1,599	3,105

Party	United Nations scale of assessment 1999 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 1999 (US\$)	United Nations scale of assessment 2000 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 2000 (US\$)	Total contributions 1999-2000 (US\$)
Egypt	0.065	0.086	4,892	0.065	0.087	5,198	10,090
El Salvador	0.012	0.016	903	0.012	0.016	960	1,863
Equatorial Guinea	0.001	0.001	75	0.001	0.001	80	155
Eritrea	0.001	0.001	75	0.001	0.001	80	155
Estonia	0.015	0.020	1,129	0.012	0.016	960	2,089
Ethiopia	0.006	0.008	452	0.006	0.008	480	931
European Community	2.500	2.500	142,500	2.500	2.500	149,625	292,125
Fiji	0.004	0.005	301	0.004	0.005	320	621
Finland	0.542	0.716	40,795	0.543	0.725	43,421	84,216
France	6.540	8.636	492,251	6.545	8.745	523,369	1,015,62
Gabon	0.015	0.020	1,129	0.015	0.020	1,199	2,328
Gambia	0.001	0.001	75	0.001	0.001	80	155
Georgia	0.019	0.025	1,430	0.007	0.009	560	1,990
Germany	9.808	12.951	738,226	9.857	13.170	788,212	1,526,438
Ghana	0.007	0.009	527	0.007	0.009	560	1,087
Greece	0.351	0.463	26,419	0.351	0.469	28,068	54,487
Grenada	0.001	0.001	75	0.001	0.001	80	155
Guatemala	0.018	0.024	1,355	0.018	0.024	1,439	2,794
Guinea	0.003	0.004	226	0.003	0.004	240	466
Guinea-Bissau	0.001	0.001	75	0.001	0.001	80	155
Guyana	0.001	0.001	75	0.001	0.001	80	155
Haiti	0.002	0.003	151	0.002	0.003	160	310
Honduras	0.003	0.004	226	0.003	0.004	240	466
Hungary	0.120	0.158	9,032	0.120	0.160	9,596	18,628
Iceland	0.032	0.042	2,409	0.032	0.043	2,559	4,967
India	0.299	0.395	22,505	0.299	0.399	23,909	46,415
Indonesia	0.184	0.243	13,849	0.188	0.251	15,033	28,883
Iran (Islamic Republic of)	0.193	0.255	14,527	0.161	0.215	12,874	27,401
Ireland	0.224	0.296	16,860	0.224	0.299	17,912	34,772
Israel	0.345	0.456	25,967	0.350	0.468	27,988	53,955
Italy	5.432	7.173	408,854	5.437	7.264	434,768	843,622
Jamaica	0.006	0.008	452	0.006	0.008	480	931
Japan	19.984	25.000	1,425,000	20.573	25.000	1,496,250	2,921,250
Jordan	0.006	0.008	452	0.006	0.008	480	931
Kazakstan	0.066	0.087	4,968	0.048	0.064	3,838	8,806
Kenya	0.007	0.009	527	0.007	0.009	560	1,087
Kiribati	0.001	0.001	75	0.001	0.001	80	155
Kyrgyzstan	0.008	0.011	602	0.006	0.008	480	1,082
Lao People's Democratic Republic	0.001	0.001	75	0.001	0.001	80	155
Latvia	0.024	0.032	1,806	0.017	0.023	1,359	3,166

Party	United Nations scale of assessment 1999 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 1999 (US\$)	United Nations scale of assessment 2000 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 2000 (US\$)	Total contributions 1999-2000 (US\$)
Lebanon	0.016	0.021	1,204	0.016	0.021	1,279	2,484
Lesotho	0.002	0.003	151	0.002	0.003	160	310
Liechtenstein	0.006	0.008	452	0.006	0.008	480	931
Lithuania	0.022	0.029	1,656	0.015	0.020	1,199	2,855
Luxembourg	0.068	0.090	5,118	0.068	0.091	5,438	10,556
Madagascar	0.003	0.004	226	0.003	0.004	240	466
Malawi	0.002	0.003	151	0.002	0.003	160	310
Malaysia	0.180	0.238	13,548	0.183	0.245	14,634	28,182
Maldives	0.001	0.001	75	0.001	0.001	80	155
Mali	0.002	0.003	151	0.002	0.003	160	310
Marshall Islands ...	0.001	0.001	75	0.001	0.001	80	155
Mauritania	0.001	0.001	75	0.001	0.001	80	155
Mauritius	0.009	0.012	677	0.009	0.012	720	1,397
Mexico	0.980	1.294	73,762	0.995	1.329	79,565	153,327
Micronesia (Federated States of)	0.001	0.001	75	0.001	0.001	80	155
Monaco	0.004	0.005	301	0.004	0.005	320	621
Mongolia	0.002	0.003	151	0.002	0.003	160	310
Morocco	0.041	0.054	3,086	0.041	0.055	3,279	6,365
Mozambique	0.001	0.001	75	0.001	0.001	80	155
Myanmar	0.008	0.011	602	0.008	0.011	640	1,242
Namibia	0.007	0.009	527	0.007	0.009	560	1,087
Nauru	0.001	0.001	75	0.001	0.001	80	155
Nepal	0.004	0.005	301	0.004	0.005	320	621
Netherlands	1.631	2.154	122,762	1.632	2.180	130,502	253,264
New Zealand	0.221	0.292	16,634	0.221	0.295	17,672	34,306
Nicaragua	0.001	0.001	75	0.001	0.001	80	155
Niue	0.001	0.001	75	0.001	0.001	80	155
Niger	0.002	0.003	151	0.002	0.003	160	310
Nigeria	0.040	0.053	3,011	0.032	0.043	2,559	5,570
Norway	0.610	0.805	45,913	0.610	0.815	48,778	94,692
Oman	0.051	0.067	3,839	0.051	0.068	4,078	7,917
Pakistan	0.059	0.078	4,441	0.059	0.079	4,718	9,159
Panama	0.013	0.017	978	0.013	0.017	1,040	2,018
Papua New Guinea	0.007	0.009	527	0.007	0.009	560	1,087
Paraguay	0.014	0.018	1,054	0.014	0.019	1,120	2,173
Peru	0.095	0.125	7,150	0.099	0.132	7,917	15,067
Philippines	0.080	0.106	6,021	0.081	0.108	6,477	12,499
Poland	0.207	0.273	15,580	0.196	0.262	15,673	31,254
Portugal	0.417	0.551	31,387	0.431	0.576	34,465	65,851
Qatar	0.033	0.044	2,484	0.033	0.044	2,639	5,123
Republic of Korea	0.994	1.313	74,816	1.006	1.344	80,444	155,261
Republic of Moldova	0.018	0.024	1,355	0.010	0.013	800	2,154

Party	United Nations scale of assessment 1999 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 1999 (US\$)	United Nations scale of assessment 2000 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 2000 (US\$)	Total contributions 1999-2000 (US\$)
Romania	0.067	0.088	5,043	0.056	0.075	4,478	9,521
Russian Federation	1.487	1.964	111,923	1.077	1.439	86,122	198,045
Rwanda	0.001	0.001	75	0.001	0.001	80	155
Saint Kitts and Nevis	0.001	0.001	75	0.001	0.001	80	155
Saint Lucia	0.001	0.001	75	0.001	0.001	80	155
Saint Vincent and the Grenadines ..	0.001	0.001	75	0.001	0.001	80	155
Samoa	0.001	0.001	75	0.001	0.001	80	155
San Marino	0.002	0.003	151	0.002	0.003	160	310
Senegal	0.006	0.008	452	0.006	0.008	480	931
Seychelles	0.002	0.003	151	0.002	0.003	160	310
Sierra Leone	0.001	0.001	75	0.001	0.001	80	155
Singapore	0.176	0.232	13,247	0.179	0.239	14,314	27,561
Slovakia	0.039	0.051	2,935	0.035	0.047	2,799	5,734
Slovenia	0.061	0.081	4,591	0.061	0.082	4,878	9,469
Solomon Islands ..	0.001	0.001	75	0.001	0.001	80	155
South Africa	0.366	0.483	27,548	0.366	0.489	29,267	56,815
Spain	2.589	3.419	194,868	2.591	3.462	207,189	402,057
Sri Lanka	0.012	0.016	903	0.012	0.016	960	1,863
Sudan	0.007	0.009	527	0.007	0.009	560	1,087
Suriname	0.004	0.005	301	0.004	0.005	320	621
Swaziland	0.002	0.003	151	0.002	0.003	160	310
Sweden	1.084	1.431	81,590	1.079	1.442	86,282	167,872
Switzerland	1.215	1.604	91,450	1.215	1.623	97,157	188,607
Syrian Arab Republic	0.064	0.085	4,817	0.064	0.086	5,118	9,935
Tajikistan	0.005	0.007	376	0.004	0.005	320	696
The Former Yugoslav Republic of Macedonia	0.004	0.005	301	0.004	0.005	320	621
Togo	0.001	0.001	75	0.001	0.001	80	155
Tonga	0.001	0.001	75	0.001	0.001	80	155
Trinidad and Tobago	0.017	0.022	1,280	0.016	0.021	1,279	2,559
Tunisia	0.028	0.037	2,107	0.028	0.037	2,239	4,347
Turkey	0.440	0.581	33,118	0.440	0.588	35,184	68,302
Turkmenistan	0.008	0.011	602	0.006	0.008	480	1,082
Uganda	0.004	0.005	301	0.004	0.005	320	621
Ukraine	0.302	0.399	22,731	0.190	0.254	15,193	37,924
United Kingdom of Great Britain and Northern Ireland	5.090	6.721	383,113	5.090	6.801	407,020	790,133

Party	United Nations scale of assessment 1999 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 1999 (US\$)	United Nations scale of assessment 2000 (per cent)	Scale with 25% ceiling, no LDC paying more than 0.01% (per cent)	Contributions as per 1 January 2000 (US\$)	Total contributions 1999-2000 (US\$)
United Republic of Tanzania	0.003	0.004	226	0.003	0.004	240	466
Uruguay	0.048	0.063	3,613	0.048	0.064	3,838	7,451
Uzbekistan	0.037	0.049	2,785	0.025	0.033	1,999	4,784
Vanuatu	0.001	0.001	75	0.001	0.001	80	155
Venezuela	0.176	0.232	13,247	0.160	0.214	12,794	26,041
Viet Nam	0.007	0.009	527	0.007	0.009	560	1,087
Yemen	0.010	0.013	753	0.010	0.013	800	1,552
Zambia	0.002	0.003	151	0.002	0.003	160	310
Zimbabwe	0.009	0.012	677	0.009	0.012	720	1,397
TOTAL	77.388	100.0	5,700,000	77.336	100.0	5,985,000	11,684,845

DECISION

IV/18

DATE AND VENUE OF THE FIFTH MEETING OF THE CONFERENCE OF THE PARTIES

The Conference of the Parties

1. Welcomes the kind offer of the Government of the Republic of Kenya to host the fifth meeting of the Conference of the Parties;
2. Decides that the fifth meeting of the Conference of the Parties will take place in Nairobi, Kenya, at a date to be specified by the Bureau, in accordance with paragraph 1 of decision IV/16, and communicated to all Parties.

DECISION

IV/19

**TRIBUTE TO THE GOVERNMENT AND PEOPLE
OF THE SLOVAK REPUBLIC**

The Conference of the Parties,

Having met in Bratislava from 4 to 15 May 1998, at the gracious invitation of the Government of the Slovak Republic,

Deeply appreciative of the special courtesy and the warm hospitality extended, and the excellent facilities provided, by the Government and people of the Slovak Republic to the Ministers, members of the delegations, observers and members of the Secretariat attending the Conference,

Expresses its sincere gratitude to the Government of the Slovak Republic and to its people for the cordial welcome which they accorded to the Conference and to those associated with its work and for their contribution to the success of the Conference.

**SELECTED DOCUMENTS CONSIDERED BY THE
CONFERENCE OF THE PARTIES AND
RECOMMENDATIONS OF THE SBSTTA**

(The following texts, which are inferred to in the COP-4 decisions but do not form a part of them as formally adopted, are reprinted here as a convenience to the reader.)

DOCUMENT UNEP/CBD/COP/4/Inf.8 [see pp. 16 and 92]

**Co-operation between the Convention on Biological
Biodiversity and the Convention on Wetlands**

- I. Review of implementation of the memorandum of co-operation between the Convention on Biological Diversity and the Convention on Wetlands (Ramsar, Iran, 1971)
 - II. Proposed joint work plan between the Conventions (1998-99), prepared by the Bureau of the Convention on Wetlands
1. The Ramsar Bureau prepared this proposal based on the:
 - a. Texts of the two Conventions;
 - b. Memorandum of co-operation between the two Convention secretariats;
 - c. Decisions from past Conferences of the Contracting Parties for the two Conventions;
 - d. Strategic Plan of the Convention on Wetlands 1997-2002, approved at the 6th Conference of the Contracting Parties in Brisbane, Australia, 1996;
 - e. Work Program 1997-99 of the Ramsar Convention's Scientific and Technical Review Panel (STRP);
 - f. Report of the Third Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA)
 - g. Approved Work Program of the Bureau (secretariat) of the Ramsar Convention 1998;
 - h. Technical program for the 7th Ramsar Conference of the Contracting Parties, San José, Costa Rica, May 1999.

BACKGROUND

2. The Memorandum of co-operation and the proposed Joint Work Plan between the Convention on Biological Diversity and the Convention on Wetlands recognizes that the two Conventions have a number of areas of common interest, particularly in, but not restricted to, inland water ecosystems and marine and coastal ecosystems.

3. The Convention on Wetlands (Ramsar, Iran 1971) is the recognized specialist Convention for matters relating to the conservation and sustainable use (called "wise use" by the Ramsar Convention) of wetlands, which are very broadly defined under that Convention as follows:

"areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres".

4. Further, the Convention provides that wetlands "may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands". The Convention also recognizes human-made wetlands such as fish and shrimp ponds, salt pans, reservoirs, gravel pits and sewage ponds. In practice, the Ramsar Convention promotes those activities which will lead to the sustainable use of water-dominated ecosystems, whether natural or artificial, permanent or temporary, static or flowing, fresh, brackish or salt, that are not deep marine waters.

5. The areas of synergy between the Convention on Biological Diversity (CBD) and the Convention on Wetlands (Ramsar) have been recognized by the member states of these two Conventions at their respective Conferences of the Contracting Parties (COPs). The CBD member states adopted Decision III/21 at their Third COP in 1996 which noted the Ramsar Convention's Strategic Plan 1997-2002 (adopted at Ramsar's 6th COP earlier in the same year) and invited it to cooperate as a lead partner in the implementation of activities under CBD related to wetlands. The relevant extract from that Decision is given below.

Extract from CBD's Decision III/21 at COP-3, 1996:

- (a) *In relation to co-operation with the Convention on Wetlands of International Importance:*
 - (i) *to note the Strategic Plan for 1997-2002 adopted by the Conference of Contracting Parties to the Convention on Wetlands*

of International Importance, in March 1996, which includes actions aimed at creating synergy between that Convention and the Convention on Biological Diversity;

- (ii) *to invite the Convention on Wetlands of International Importance to cooperate as a lead partner in the implementation of activities under the Convention related to wetlands, and, in particular, requests the Executive Secretary to seek inputs from the Convention on Wetlands of International Importance, in the preparation of documentation concerning the status and trends of inland water ecosystems for the consideration of the Conference of the Parties at its fourth meeting.*

6. Likewise, the member states of the Convention on Wetlands at their 5th and 6th COPs adopted Resolutions (5.1 and VI.9, respectively) urging closer co-operation between the two Conventions. At Ramsar's 6th COP in Brisbane, Australia in 1996, the member States adopted a Strategic Plan 1997-2002 for the Convention which further reinforces the desirability of co-operation between the Conventions. The relevant extract is given below. Extract from Convention on Wetlands—Strategic Plan 1997-2002, adopted at COP6, 1996. Operational Objective 7.2, Action 7.2.3:

Strengthen co-operation and synergy with the Convention on Biological Diversity, in particular as regards inclusion of wetland concerns in national biodiversity strategies, and planning and execution of projects affecting wetlands.

In addition, the Ramsar Bureau assisted in the 1997 CBD SBSTTA meeting by contributing to the paper on "Biological diversity of inland waters" (UNEP/CBD/SBSTTA/3/2) and by organizing a workshop on "Biodiversity of Inland Waters" and providing its report as an information document (UNEP/CBD/SBSTTA/Inf.26).

7. In January 1996, a Memorandum of co-operation (MoC) between the secretariats of CBD and Ramsar was signed by the Executive Secretary of CBD and the Secretary General of Ramsar. This MoC, through six Articles, sets out a range of actions designed to establish a closer working partnership between the two Conventions. The text of this MoC is given in Section I of this Information Document, which also describes the actions taken in response to each Article. It is followed in Section II by the proposed Joint Work Plan for the Conventions as developed by the Bureau (secretariat) of the Convention on Wetlands for the information of participants at the Fourth COP of the CBD in May 1998, in Bratislava.

SECTION I. REVIEW OF IMPLEMENTATION OF THE MEMORANDUM OF co-operation

8. The Memorandum of co-operation (MoC) was signed on 19 January 1996 in Geneva, Switzerland, by the Executive Secretary of the Convention on Biological Diversity, Dr. Calestous Juma, and the Secretary General of the Convention on Wetlands, Mr. Delmar Blasco. The operative paragraphs of the MoC are reproduced below along with a brief statement of the actions which have been taken in response to each.

Article 1. Institutional co-operation

a. The secretariats will explore the possibility for the organs of one Convention to participate as observers at meetings of the other.

9. It is now regular practice for "observers" from each Convention secretariat to attend COPs of the other. It has been suggested that this could be extended to include meetings of the Ramsar Convention's Standing-Committee and the Bureau of the CBD in 1998 and beyond. The Chair of Ramsar's Scientific and Technical Review Panel and the Ramsar secretariat attended the Third meeting of the SBSTTA in 1997. An invitation was extended to the Chair of SBSTTA and the Secretariat of CBD to attend the Seventh meeting of Ramsar's STRP in April 1998.

b. The secretariats will inform their respective focal points in each Contracting Party of their cooperative activities, and will seek to promote consultation and co-operation between focal points in those Contracting Parties where the focal points for the two Conventions are different.

10. In November 1997, the Ramsar Convention Bureau advised its Contracting Parties under Diplomatic Note of the proposed collaboration with the CBD and urged that there be dialogue at the national level between those officials responsible for implementation of the two Conventions. This was repeated in April 1998 when this Information Document was distributed to all Ramsar Contracting Parties.

Article 2. Exchange of information and experience

- a. The secretariats will institute procedures for regular exchanges of information in their respective fields of action.

11. The secretariats exchange information on the outcomes of key meetings at present. In 1997, the Ramsar Bureau engaged an expert consultant, Dr Ken Lum, based in Montreal, to further discussions on areas of mutual interest between the Conventions. The development of the proposed Joint Work Plan (Section II) was assisted greatly by this arrangement and efforts will be escalated in the future to continue this level of dialogue. It is proposed that the Joint Work Plan elaborated in Section II be reviewed on a regular basis by the relevant officers within the two secretariats, and that future Joint Work Plans be prepared by annual meetings of these staff. These could then be considered by the Ramsar Standing Committee and the COP or the Bureau of the CBD.

- b. The secretariats will work out modalities for exchanging data on biodiversity contained in their databases and the Clearing-house Mechanism under the Convention on Biological Diversity and for cooperating in preparing relevant documents under each Convention.

12. Both secretariats are at present supporting the World Conservation Monitoring Centre (WCMC) in its project which is reviewing options for harmonization of data and information exchange between international biodiversity Conventions. Further, the sites maintained by each secretariat on the World Wide Web are "hot-linked" to facilitate access to the information provided by each and the networks they are, in turn, connected to. The additional expectations raised by this sub-paragraph are addressed through the proposed Joint Work Plan which follows in Section II.

Article 3. Co-ordination of programs of work

- a. The secretariats will explore the possibility to coordinate the preparation of their respective work plans.

13. Refer to Section II below.

- b. The secretariats will explore the possibility of harmonizing the reporting requirements of Contracting Parties under both Conventions.
14. Both secretariats are at present supporting the WCMC project which is reviewing options for harmonizing the reporting requirements of Contracting Parties under both Conventions.

Article 4. Joint conservation action

- a. The secretariats will consult their Contracting Parties with a view to encouraging integration and consistency between National Strategies, Plans or Programs under the Convention on Biological Diversity and National Wetland Policies under the Ramsar Convention.
15. The Ramsar Bureau has been encouraging the Administrative Authorities of the Convention in the Contracting Parties to ensure that they contribute the appropriate Ramsar elements to the preparation of national biodiversity strategies. There is evidence to indicate that this is occurring in a number of countries. At Ramsar's COP7 in Costa Rica in May 1999, this issue will be addressed through one of the Technical Sessions (see section II.2.a). It is proposed that the secretariats collaborate in preparing for this Technical Session, a product of which will be guidelines for ensuring that national biodiversity and wetland policies or strategies are integrated or harmonized.
- b. The secretariats will consult their Contracting Parties with the view to encouraging effective conservation and sustainable use of biodiversity in wetlands, particularly for the purposes of promoting the maintenance of ecological character of sites designated by Contracting Parties for the Ramsar List and promoting the development of a consistent approach for monitoring ecological character and ensuring conservation of wetland biodiversity.
16. The expectations raised by this sub-paragraph are addressed through the proposed Joint Work Plan, in Section II.3.b. Specifically, Ramsar's STRP is at present developing guidelines to assist Contracting Parties with monitoring the "ecological character" of sites. Ramsar's Wise Use Guidelines (and Additional Guidance) also provide a framework for "encouraging effective conservation and sustainable use of biodiversity in wetlands" (see section II.5.a following).

- c. The secretariats will endeavor to coordinate their activities in research, training and public awareness activities.

17. The expectations raised by this sub-paragraph are addressed through the proposed Joint Work Plan, in Section II.7 and II.8.

Article 5. Consultation, reporting and further guidance

The secretariats will institute measures for consultations on the implementation of this memorandum of co-operation and will report accordingly to their respective governing bodies and seek further guidance on new areas of co-operation.

18. Refer to the statement in response to Article 2.a above.

Article 6. Review and termination

This agreement may be reviewed at the request of either party and will be terminated by either party giving a one-year written notice.

19. Not applicable.

SECTION II. PROPOSED JOINT WORK PLAN, 1998-99

To assist Contracting Parties of the CBD in reviewing this proposed Joint Work Plan, the actions described below have been arranged in the order of the relevant Articles of the CBD Convention text. To assist Ramsar focal points, the actions are cross-referenced to the relevant Articles of the text of the Convention on Wetlands and the General Objectives in the Strategic Plan 1997-2002.

Contents

- II.1 *International co-operation*
 - a. Transboundary co-operation
 - b. Small Island Developing States

-
- II.2 *General measures for conservation and sustainable use*
 - a. National strategies, policies and plans
 - b. Integrated watershed and coastal zone management
 - c. Appropriate technologies

 - II.3 *Identification and monitoring*
 - a. Status and trends
 - b. Monitoring and assessment
 - c. Assessment techniques

 - II.4 *In-situ conservation*
 - a. "Important" sites
 - b. Rehabilitation and restoration of ecosystems
 - c. Alien species
 - d. Involvement of local and indigenous communities
 - e. Legal instruments
 - f. Financial and other support

 - II.5 *Sustainable (wise) use of resources*
 - a. Wise Use Guidelines and Resource Centre
 - b. Economic valuation
 - c. The ecosystem approach under the CBD and the Wise Use Guidelines
 - d. Remedial actions - refer to II.4.b above.

 - II.6 *Incentive measures*
 - a. Incentive measures

 - II.7 *Research and training*
 - a. Research
 - b. Training and capacity-building

 - II.8 *Public education and awareness*
 - a. Public education and awareness

- II.9 *Impact assessment and minimizing adverse impacts*
 - a. Environmental Impact Assessment
 - b. Toxic chemical reduction
- II.10 *Exchange of information*
 - a. Wise Use Resource Centre
- II.11 *Technical and scientific co-operation*
 - a. Clearing house mechanisms
 - b. Collaboration between technical bodies
 - c. Sharing networks and rosters of expertise
 - d. Collaboration with broader water resource community
- II.12 *Financial mechanisms*
 - a. Mobilizing resources at the country level
 - b. Targeted research

II.1 INTERNATIONAL CO-OPERATION

(CBD Article 5; Ramsar Article 5 and Strategic Plan General Objectives 1 and 7)

a. *Transboundary co-operation*

Article 5 of the Ramsar Convention expects Contracting Parties to work cooperatively to manage transboundary watersheds and the migratory species reliant on wetland ecosystems (inland water ecosystems and marine and coastal ecosystems). There are several examples of where this is occurring under the Ramsar Convention at present. The Ramsar Convention also collaborates with the Convention on Migratory Species to promote multilateral approaches to the conservation of migratory species. The secretariats of the Convention on Wetlands and the Convention on Migratory Species have a Memorandum of Understanding in place.

The Ramsar Convention's Strategic Plan 1997-2002 indicates that at COP7, the Contracting Parties will consider for adoption guidelines on the implementation of Article 5 which will be directly relevant to the CBD. Transboundary and regional models for international co-operation

will also be a major part of Technical Session V at Ramsar's COP7 entitled The Frameworks for Regional and International co-operation.

b. *Small Island Developing States*

The CBD recognizes the special significance and circumstances of the Small Island Developing States, as does the Ramsar Convention in its Strategic Plan. On World Wetlands Day 1998, the Ramsar Bureau launched a special publication intended to encourage these States to join the Convention and gain access to its expertise and resources. The publication draws attention to the obvious synergy between CBD and the Convention on Wetlands for the habitats common in these countries, as well as the impending development of this Joint Work Plan. It is proposed that the two Convention secretariats collaborate to encourage an integrated approach to implementation of the two Conventions in the Small Island Developing States, the results of which would be reported on at Ramsar's COP7 and at a future CBD COP.

II.2 GENERAL MEASURES FOR CONSERVATION AND SUSTAINABLE USE

(CBD Article 6; Ramsar Article 3 and Strategic Plan General Objective 2)

a. *National strategies, policies and plans*

The development of appropriate policy and legislative instruments at the national level is a very high priority for both Conventions. For the long-term sustainability of inland water ecosystems and marine and coastal ecosystems, there must be cross-sectoral approaches taken for the development of national policy instruments which integrate biodiversity and wetland conservation considerations into broader frameworks. At Ramsar's COP7 these issues will be considered in Technical Sessions I (*Ramsar and Water*) and II (*National Planning for Wetland Conservation and Wise Use*). Projects examining models for policy development and legislative review (see II.4.e also) are under way at present under Ramsar, and will be reported on and further elaborated at that time.

Also, the Ramsar Convention promotes the establishment of cross-sectoral National Wetland Committees as a mechanism to encourage a more integrated approach to water systems management. Similarly, at the local scale, through its Management Planning Guidelines, the Ramsar

Convention promotes full stakeholder consultation and the establishment of cross-sectoral management committees for Wetlands of International Importance and other wetland sites. Collaboration with CBD will assist with moving towards integration of these consultative instruments and national advisory bodies and processes at the country level. The collaboration with CBD will strive to use the ecosystem approach for the work of those bodies and processes.

The first national reports submitted by Parties to the CBD address Article 6 (General Measures for Conservation and Sustainable Use) and report on measures taken in the development of national strategies, programs and other plans. A synthesis is being made in document UNEP/CBD/COP/4/11. Decision III/9 of the third meeting of the COP of the CBD urged Parties to include in their national plans or strategies, *inter alia*, integration of biological diversity objectives in relevant sectoral policies.

b. *Integrated watershed and coastal zone management*

The Conference of the Parties to the Convention on Biological Diversity has adopted an ecosystem approach to implementing the Convention. At Ramsar's COP7, Technical Session I (Ramsar and Water) will examine lessons learned in integrated watershed management and provide advice to governments, organizations and the general community on best practice in this area. To the extent possible, this session could examine the findings under the principles of the ecosystem approach so far developed under the Convention on Biological Diversity.

The Ramsar List of Wetlands of International Importance includes 903 sites. Of these, 435 have coastal components and, of these, 379 are totally coastal or marine wetland types. Through the Convention, management plans to promote the integrated management of these areas are being prepared or have been completed. Through the National Reports being prepared by Ramsar Parties for COP7, up-to-date information will be provided on the status of these plans and the focal points for each site. This information will be available to the Secretariat of CBD, the SB-STTA and the focal points of CBD in the respective Contracting Parties to assist them with promoting an integrated approach to marine and coastal area management.

Decision III/11 of the third meeting of the COP of the CBD endorsed the conclusions of the 1995 CSD sectoral review of Agenda 21, which, *inter alia*, recognized the need for an integrated and multidisciplinary

nary approach to the planning, development and management of land resources, and that the achievement of the multiple objectives related to sustainable agriculture and rural development requires a whole system approach. In view of the inter-relationship and impacts between land use and the status of inland water and marine and coastal ecosystems, collaboration will be developed between the Ramsar and the terrestrial work programs of the CBD with attention to incentive measures for sustainable use.

c. *Appropriate technologies*

As indicated under II.2.b above, Theme I of the Technical Sessions at Ramsar's COP 7, *Ramsar and Water*, will examine lessons learned in integrated watershed management. Two sub-themes being considered for attention in this Technical Session are also relevant here, namely, "The role of wetlands in the hydrological cycle" and "The role of wetlands, both natural and constructed, in pollution management". It is proposed that the guidelines emerging from these presentations be added to Ramsar's Wise Use Resource Centre (see II.5.a below) and be generally available to CBD Parties and others for their application as appropriate.

II.3 IDENTIFICATION AND MONITORING

(CBD Article 7; Ramsar Article 2 and 3.2, Strategic Plan General Objectives 2, 5 & 6)

a. *Status and Trends*

The Global International Waters Assessment (GIWA) project has as its overall objective the development of a framework for the identification of priorities for remedial and mitigatory actions in international waters, where significant environmental benefits can be achieved at the national, regional and global levels. The Ramsar Convention is at present funding Wetlands International to prepare Phase I of a Global Review of Wetland Resources. This project is directly complementary to the GIWA project and is due to report on progress at Ramsar's COP7.

b. *Monitoring and assessment*

Ramsar's Scientific and Technical Review Panel (STRP) has prepared a paper entitled *Early Warning Systems for Detecting Ecological*

Change in Wetlands, which will provide Ramsar Contracting Parties with a basis for monitoring to detect impacts on water-dominated ecosystems. The Bureau convened a small technical workshop to progress this topic on 20-22 April 1998 from which a paper, with recommendations, is to go forward to COP7. The paper, *Early Warning Systems for Detecting Ecological Change in Wetlands*, also considers issues of indicators and criteria which could be directly transferable to the SBSTTA program for inland water ecosystems.

With respect to undertaking the assessment of inland water ecosystems which may be regarded as important in accordance with the terms of Annex I of the CBD Convention, this matter is considered further under II.4.a. below. The Ramsar Convention also encourages all Contracting Parties to prepare National Wetland Inventories, and then to use these for planning and management as well as the identification of nationally and internationally important wetlands (see II.12.a also). The Ramsar Convention will urge its focal points in each Contracting Party to collaborate with their CBD counterparts to ensure that this information is available to them for national biodiversity planning activities.

The use of Earth Observation data to describe the status, trends and threats to wetlands is also presently under investigation by the Ramsar Bureau and may be the subject of special consideration at COP7.

The third meeting of the COP of the CBD endorsed the recommendation II/1 of its SBSTTA concerning indicators, monitoring and assessment, including a list of priority tasks. There is a need for collaboration and coordination between the work of the two processes in this area.

c. *Assessment techniques*

At the 7th Ramsar COP, Theme IV of the Technical Sessions is to be entitled, Tools for Assessing and Recognizing Wetland Values. This will include a special analysis of indicator species and guidelines for rapid assessments of wetlands and water resources from the perspectives of biodiversity and ecological/hydrological functions. The outputs from this Technical Session will assist CBD Contracting Parties and the SBSTTA with progressing activities in this area.

II.4 *IN-SITU* CONSERVATION

(CBD Article 8; Ramsar Articles 3.1, 4.1, Strategic Plan General Objectives 2, 5 & 6)

a. *"Important" sites*

Further to II.3.b above, the Ramsar Convention urges that CBD consult with the Ramsar Convention when considering how best to prepare indicative lists of inland water ecosystems of importance for biodiversity conservation (in accordance with Annex I of the Convention on Biological Diversity). The Ramsar Convention has criteria in place for identifying Wetlands of International Importance (which are under review at present by the STRP and secretariat). It is expected that at COP7 there will be consideration given to a proposed re-organization of these criteria to group all of the "biodiversity" criteria together. Ramsar's STRP is also reviewing the wetland classification system used by the Convention. The attendance of the chair of SBSTTA, or other relevant representatives, at future STRP meetings will assist in encouraging this convergence in approaches to take place.

Ramsar's criteria also include recognition of ecological communities, and the work being done at present on this by IUCN's Species Survival Commission (SSC) is of direct interest to the Convention on Wetlands as well. It is proposed that CBD and the Ramsar Convention consult with the IUCN SSC as necessary, to assist with the progress of this work.

b. *Rehabilitation and restoration of ecosystems*

Ramsar's Strategic Plan (Operational Objective 2.6) sets down a range of actions intended to promote the rehabilitation and restoration of wetland ecosystems. The Ramsar Convention Bureau is working with appropriate partners, and through the STRP, to access the established expert networks in this field. It is also proposed to document case studies demonstrating best practice in rehabilitation and restoration of wetland ecosystems in time for Ramsar's COP7.

Issues relating to the rehabilitation and restoration of ecosystems are addressed in the CBD COP decisions on marine and coastal, agricultural and forest ecosystems.

c. *Alien species*

This is an emerging issue for the Ramsar Convention and is being considered as a Special Intervention at COP7. It is proposed that CBD and Ramsar liaise with IUCN, ICSU and SCOPE in their Global Invasive Species Initiative to further this work for the Contracting Parties.

This area is being addressed by the CBD in its thematic programs and under the issue of identification, monitoring and assessment of components of biological diversity and of processes that have adverse impacts.

d. *Involvement of local and indigenous communities*

Ramsar's COP7 has the overall theme of *People and Wetlands: The Vital Link*. The Bureau is at present working with IUCN (and a number of other NGOs) to document case studies, lessons learnt and best practice in the involvement of local and indigenous people in the management of wetlands.

On the basis of this project, Guidelines for the involvement of local and indigenous people in wetland management will be presented at COP7 under Technical Session III entitled, *Involving Local People at all levels*.

e. *Legal instruments*

As indicated under II.2.a above, the development of appropriate policy and legislative instruments at the national level is a very high priority for both Conventions. To assist Ramsar Contracting Parties in the area of legislative frameworks, the Convention Bureau has engaged the IUCN's Environmental Law Centre to develop guidelines for reviewing the legal framework for wetlands conservation and wise use. The report on this project (with Guidelines) will be presented at COP7 in Technical Session II on national planning instruments. It will produce direct advice to Parties which will be equally relevant to CBD focal points.

f. *Financial and other support*

CBD Decision III/21, Operative Paragraph 12, "Invites contracting parties to relevant biological diversity-related Conventions to explore opportunities for accessing funding through the Global Environment Facility for relevant projects, including projects involving a number of countries". Given the areas of close collaboration and synergy between CBD and the Convention on Wetlands which this proposed Joint Work Plan

describes, the Bureau of the Ramsar Convention has outlined under Section II.12 of this document a range of projects which it considers should be recommended for support to the GEF by CBD's COP4. These are mostly priority actions at the country level to enable developing countries, and those with economies in transition, to better implement their obligations under the CBD and Ramsar Conventions as they pertain to inland water ecosystems and marine and coastal ecosystems.

II.5 SUSTAINABLE (WISE) USE OF RESOURCES

(CBD Article 10; Ramsar Article 3, Strategic Plan General Objective 2)

a. *Wise Use Guidelines and Resource Centre*

The Ramsar Convention has adopted Guidelines and Additional Guidance on implementation of its Wise Use concept for inland water ecosystems and marine and coastal ecosystems. On World Wetlands Day in 1998, the secretariat launched the Wise Use Resource Centre which aims to accelerate dialogue and the sharing of information and expertise in this area. The facility is available to all, and is to be promoted to CBD focal points to assist them with the management of these habitat types.

b. *Economic valuation*

Ramsar's 1997 publication *Economic Valuation of Wetlands: a Guide for Policy Makers and Planners* provides the most current information on wetland valuation techniques. As a follow-up action, Theme IV for Ramsar's COP7 will look at four aspects related to this under the theme of *Tools for Assessing and Recognizing Wetland Values*. Ramsar is seeking to collaborate with the Global Wetlands Economists Network in moving ahead on issues such as recognizing and valuing wetland functions and services and measuring the social impacts resulting from the degradation of water resources. Also, under Technical Session III at COP7 with the theme *Involving local people at all levels*, it is proposed that there be a review of fiscal and other incentive measures for wetland conservation and wise use (see II.6 below).

c. *The ecosystem approach under the CBD and the Wise Use Guidelines*

The two secretariats will examine whether the Wise Use Guidelines and the principles of the Ecosystem Approach are compatible or how they could be harmonized, and propose the results to their next COPs. This would allow for joint implementation of the two Conventions.

d. *Remedial actions refer to II.4.b above.*

II.6 INCENTIVE MEASURES

(CBD Article 11; Ramsar Article 2, Strategic Plan General Objective 2)

a. *Incentive measures*

As advised under II.5.b above, the area of incentives, disincentives, etc., is to be examined in detail in Technical Session III at COP-7, which has the theme Involving local people at all levels. The CBD Web site on incentive measures, which is being developed, can be linked to the Wise Use Resource Center to facilitate active information exchange.

II.7 RESEARCH AND TRAINING

(CBD Article 12; Ramsar Articles 4.3 & 4.5, Strategic Plan General Objectives 2, 4 & 7)

a. *Research*

Promoting research and the transfer of the knowledge gained is a priority for both Conventions. The respective "clearing-houses" for information maintained by the Conventions are the mechanisms for dissemination (see II.11.a below), but they should also become a tool for promoting research into the ecosystem-based approach to managing inland water ecosystems and marine and coastal ecosystems. Ramsar's Wise Use Resource Centre (see II.5.a above) is designed to be a proactive way of examining current management issues and directing the efforts of the research community to priority issues.

b. *Training and capacity-building*

During 1998 the Ramsar Bureau is assembling a catalogue of training opportunities for wetland managers. This "clearing-house" for information on training will form part of the Bureau's Wise Use Resource Centre (see II.5.a above).

It is proposed that in partnership the two Conventions should seek to mobilize donor support, and especially that of the Financial Mechanism, to escalate the level and intensity of training and capacity-building (see II.12.a) to allow the representatives from developing countries and those with economies in transition to attend training programs. Also, it is proposed that in-country training be fostered through this initiative.

II.8 PUBLIC EDUCATION AND AWARENESS

(CBD Article 13; Ramsar Strategic Plan General Objective 3)

a. *Public education and awareness*

Ramsar's Communication and Public Awareness Plan (1998-99) describes approximately 30 different target groups for its activities in these areas. During 1998 a Communications Strategy will be developed for the Convention which will provide a framework for these activities for the period 1999-2002. Under Ramsar's Strategic Plan, collaboration with several organizations promoting environmental education approaches is advocated, among them the Global Rivers Environmental Education Network (GREEN). The Bureau is also at present pursuing direct contact with the formal education system through its various teachers networks in order to promote and make available models for curriculum development.

II.9 IMPACT ASSESSMENT AND MINIMIZING ADVERSE IMPACTS

(CBD Article 14; Ramsar Article 2, Strategic Plan General Objective 2)

a. *Environmental Impact Assessment*

One of Ramsar's NGO Partners, Birdlife International, is working with the STRP and the Bureau to develop Guidelines on Environmental Impact Assessment for wetlands. It is proposed that these be presented at

COP7 under Technical Session II, National Planning for Wetland Conservation, and then made available in the Wise Use Resource Centre (see II.5.a above)

b. *Toxic chemical reduction*

At Ramsar's 6th COP attention was focused on the impact of toxic chemicals on wetland systems, and member States were urged to take appropriate actions in response. This issue has not gained the prominence it should have in the period following, especially given the seriousness of the problem. With support from WWF, Ramsar proposes to develop a program of action to be considered for funding under appropriate avenues, such as the Financial Mechanism's Targeted Research Program (see II.12. b below).

II.10 EXCHANGE OF INFORMATION

(CBD Article 17; Ramsar Article 4.3, Strategic Plan General Objective 3)

a. *Wise Use Resource Centre*

As indicated under II.5.a above, on World Wetlands Day 1998 the Ramsar secretariat launched the Wise Use Resource Centre, which aims to accelerate dialogue and the sharing of information and expertise in this area. The facility is available to all, and is to be promoted to CBD focal points, through the established links between the two Web sites, to assist them with the management of these habitat types. The Centre, housed on Ramsar's site on the World Wide Web, includes an experts database, a resource library, a "hot topics" dialogue area, and details on training opportunities around the globe.

b. *Refer also to II.11 below*

II.11 TECHNICAL AND SCIENTIFIC co-operation

(CBD Article 18; Ramsar Article 4.3, Strategic Plan General Objectives 3 & 8)

a. *Clearing house mechanisms*

Both Conventions maintain sites on the World Wide Web which operate as "clearing-houses" or entry points to networks of networks.

These sites are "hot-linked" to facilitate access to the information each houses, and it is proposed they have "mirror" pages to demonstrate the collaborative approaches being taken by the two Conventions for inland water ecosystems and marine and coastal ecosystems.

b. *Collaboration between technical bodies*

Both Conventions have expert advisory groups, SBSTTA for CBD and the Scientific and Technical Review Panel for the Ramsar Convention. Even though the two bodies are different in composition and modus operandi, regular dialogue and a flow of information between these expert bodies will clearly be advantageous. It is proposed that the current practice of inviting the chairs of these respective bodies to the meetings of the other should continue. This has also included members of the secretariats in the past and it is likewise proposed that this continue.

c. *Sharing networks and rosters of experts*

The Ramsar Convention launched its Wetland Experts Database on World Wetlands Day (2 February) 1998. The Secretariat of the CBD is also building its own rosters of experts. It is proposed that there be collaboration between the two Conventions to complement CBD's establishment of a roster of experts with specialization in inland water ecosystems and marine and coastal ecosystems.

In addition, the Convention on Wetlands has four non-governmental organizations as its official "partners". These are The World Conservation Union (IUCN), Wetlands International, World Wide Fund for Nature (WWF) and BirdLife International. The Ramsar Convention holds regular planning meetings with these partners and a number of joint projects are underway at present. In future it is proposed to invite the CBD Secretariat to have representation at these planning meetings.

d. *Collaboration with broader water resource community*

Ramsar is actively participating in the World Water Council and the Global Water Partnership which both strive to encourage integrated water resource management. The Ramsar Bureau has established itself as a "kiosk" in the GWP's World Wide Web site, the so-called Water Shopping Mall. The secretariat of the CBD is participating in the ACC Subcommittee on Water Resources, which oversees the coordination of UN system activities regarding water resources. The Ramsar Bureau has also participated in the Water and Sustainable Development Conference held in Paris

in March 1998 and both secretariats cooperated during the Ad-hoc Intersessional Working Group of the CSD on Strategic Approaches to Freshwater Management (New York, 23-27 February 1998), and plan to do likewise at the Sixth Session of the Commission on Sustainable Development in New York in April 1998. In these high-level global fora, the Ramsar Bureau is actively advocating and encouraging the adoption of an ecosystem approach to river basin management.

II.12 FINANCIAL MECHANISMS

(CBD Article 21; Ramsar Strategic Plan General Objective 8)

CBD Decision III/21, Operative Paragraph 7 (a) (ii) invited "the Convention on Wetlands to cooperate as a lead partner in the implementation of the activities under the Convention related to wetlands". It is clear from the foregoing Joint Work Plan, and the Convention's Strategic Plan 1997-2002, that the Convention on Wetlands is well placed to take on this role. As indicated under II.4.f above, CBD Decision III/21, under Operative Paragraph 12, also invited "contracting parties to relevant biological diversity-related Conventions to explore opportunities for accessing funding through the Global Environment Facility for relevant projects, including projects involving a number of countries". Given this previous Decision by the CBD, the Ramsar Convention Bureau has prepared the following advice for the Contracting Parties of the Convention on Biological Diversity. It is designed to assist with providing Additional Guidance to the Financial Mechanism at COP-4 (Agenda Item 14.5) in order to operationalize the priority actions under the two Conventions as they pertain to inland water ecosystems and marine and coastal ecosystems:

a. *Mobilizing resources at the country level*

At the country level, the priorities for funding support through the Financial Mechanism are as follows:

a. enabling activities to establish the necessary policy and legislative frameworks and instruments, including cross-sectoral consultative processes, leading to harmonized implementation of the Conventions on Biological Diversity and Wetlands at the national scale;

b. the completion of national inventories of wetland and associated water resources to allow the identification of ecosystems (according

to the definition used by the Ramsar Convention) of global importance in accordance with the Criteria for Wetlands of International Importance adopted by the Ramsar Convention, and encouraged under Annex I of the Convention on Biological Diversity;

c. the preparation of integrated management plans for the Wetlands of International Importance designated under the Ramsar Convention, and those identified under b. above;

d. the preparation of management reviews and the undertaking of appropriate remedial and other actions for those sites included on the Ramsar Convention's Montreux Record of Wetlands of International Importance where changes in ecological character have occurred, are occurring or are likely to occur;

e. the preparation, and implementation, of integrated river basin management plans, where these cross international borders, to ensure the long term conservation of these sites of global significance for the conservation of biological diversity; and

f. the capacity-building and training needed to provide the long-term skills base within these countries for a-e above to be undertaken.

b. *Targeted research*

Further to II.12.a above, and also recognizing Operative Paragraph 6 (a) from CBD Decision III/5, relating to the Financial Mechanism supporting targeted research which contributes to the conservation of biological diversity and the sustainable use of its components, CBD's COP-4 is urged to advise the Financial Mechanism to give high priority to supporting:

a. a review of the threatening processes contributing to the loss of biological diversity and breakdown of ecological processes in wetland ecosystems,

b. the identification of the global measures needed to combat these threats, and specific investigations into the degrading impacts of toxic chemicals on inland water ecosystems and marine and coastal ecosystems, and how these can be addressed.

DOCUMENT UNEP/CBD/COP/4/Inf.9 [see pp. 3 and 37]

**Report on the Workshop on the Ecosystem Approach
Lilongwe, Malawi, 26-28 January 1998****I. Introductory Remarks**

1. Due to the initiative and generous support of the Governments of Malawi and the Netherlands, a CBD-Workshop on the Ecosystem Approach was held in Lilongwe, Malawi, from 26 to 28 January 1998. The Workshop was formally opened by Honorable F.V. Mayinga Mkandawire, M.P., Minister of Forestry, Fisheries and Environmental Affairs. The Minister underscored the importance of the process to discuss the ecosystem approach for the implementation of the Convention. Prof. Dr. Herbert Prins welcomed the participants on behalf of the Government of the Netherlands and expressed his satisfaction that the participants were eminent scientists who were so willing to share their thoughts on the difficult issue of the ecosystem approach. The Workshop was co-chaired by Prof. Dr. Herbert Prins and Prof. Dr. James Seyani from Malawi.

2. The debate was initiated by introductory remarks of Dr. Francesco Mauro in which he provided a short history of what is now referred to as the "ecosystem approach" in the process of the Convention on Biological Diversity (CBD).

3. The Convention on Biological Diversity defines in Article 2 an ecosystem as "*a complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.*" The ecosystem is one aspect of biological diversity which means "*the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems*" (Article 2).

4. The Convention states that "the fundamental requirement for the conservation of ecosystems and natural habitats is the *in-situ* conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings" (Preamble). *In-situ* conservation (Article 8) is complemented by the promotion of *ex-situ* conservation (Article 9). These provisions provided together with the three objectives of the Convention - the conservation of biological diversity, the sustainable use of its components and the fair and equitable shar-

ing of benefits arising out of the use of genetic resources (Article 1) - and other relevant preambular statements provided the basis for the Conference of the Parties (COP) and its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to elaborate on what is now referred to as "the ecosystem approach".

5. The importance of an ecosystem approach in addressing biological diversity was directly or indirectly confirmed on several occasions, starting with the first two meetings of the SBSTTA in 1995 and 1996. At the second meeting of the SBSTTA the ecosystem approach was explicitly mentioned and, thereafter, the third meeting of the COP underscored the importance of regional and ecosystem approaches for the development of guidelines and indicators. As it is well known, the SBSTTA has decided that a main theme should be considered, together with cross-cutting issues, at each of its meetings. Thus, the following thematic areas have been discussed so far: marine and coastal, agricultural, forest, and inland water biological diversity. All these themes, which are not at all equivalent to ecosystems but rather clusters to facilitate discussions, have been considered according to a sort of ecosystem approach and, in several occasions, the approach and the consequent indications for action were endorsed by the COP. In all instances, the approach has been indicated although the terminology used varied: "ecosystem approach", "ecosystem process-oriented approach", "ecosystem management approach", "ecosystem-based approach" etc.

6. In order to develop a common understanding of the ecosystem approach, the Secretariat organized an informal discussion, held as a side-event at the third meeting of the SBSTTA in September 1997 in Montreal. In that occasion, where a draft discussion paper was provided as "provocative "background material, there was consensus among all participants that a discussion within the process of the CBD should be urgently initiated as there is a broad range of views about the meaning, scope and elements of the approach. At that meeting, several problems were highlighted that need further discussion: terminology, types of ecosystems ("natural" vs. "man-modified"), underlying theoretical assumptions, relation between ecosystem approach and ecosystem management, problems of methodology, need for case studies, implications for the implementation of the CBD with special reference to its *modus operandi* and the legal implications. In conclusion, the participants to that meeting suggested that a process should be initiated to foster the discussion about the meaning and the elements/principles of the ecosystem approach in the CBD, and that such a discussion should be reflected in an information document to be presented possibly at the fourth meeting of the COP, to

be held from 4 to 15 May 1998 in Bratislava, Slovakia, as a basis for further discussion and elaboration. The present workshop is the result of that suggestion and of the initiative by the CBD-Secretariat to ensure an advancement of the debate on the ecosystem approach.

7. During the three-day meeting which included an evening session, the participants discussed what they thought an ecosystem approach should be and why an ecosystem approach should be taken to implementing the Convention. After discussing those two questions, the focus laid on the third question: What are the principles of an ecosystem approach? The participants considered that question as the most important one.

II. Findings of the Workshop

1. What is an ecosystem approach?

8. Taking the provisions of the Convention and the deliberations within the process of the Convention into account, the participants of the Workshop developed the following description of the approach: The ecosystem approach is based on the application of appropriate scientific methodologies focused on levels of biological organization which encompass the essential processes and interactions amongst organisms and their environment. The ecosystem approach recognizes that humans are an integral component of ecosystems.

9. The ecosystem approach can be considered as a framework for analysis and implementation of the objectives of the CBD.

10. In elaborating on and applying the ecosystem approach, the following elements should be borne in mind:

(a) original meaning of "ecosystem" in order to avoid a misconception as a unit of a particular scale such as habitat, biotope or biome;

(b) the problem/question should determine the scale to which the ecosystem approach is applied

(c) "ecological" reasoning includes the following elements:

-non-linearity

-functioning

-interconnectedness- the human dimension

-adaptability/resilience (as opposed to stability)

11. Ecosystems are complex, non-linear and the outcomes of processes often show time lags. Further properties of ecosystems are discontinuities, thresholds, resilience and interconnectedness of which humans are part. Since ecosystems are dynamic, they contain elements of surprise and uncertainty. Management needs to be adaptive to allow for testing of management policies and emphasizes learning-by-doing.

12. It was debated whether the term "ecosystem approach" was not preferable to "ecosystem-based approach" given the above considerations. The ecosystem concept and its underlying principles are primarily a basis for development of a management methodology for particular areas of land or water rather than a focus on any particular ecosystem as it might be implied by the term "ecosystem approach". The term "ecosystem-based approach" would reflect better the particular type of reasoning and analysis to tackle the objectives to implement the Convention. However, as the term "ecosystem approach" has been used throughout the discussions within the Convention, it was felt that it was advisable to continue to use this term.

13. As summarized in the introductory remarks, the COP and SBSTTA have discussed and decided upon various thematic areas. The ecosystem approach should be applied throughout all these and future thematic areas.

2. *Why should we take an ecosystem approach?*

14. Classical nature conservation approaches have limitations as the sole tool for management of biological diversity and frequently but not always display one or more of the following characteristics:

- (a) Insufficient recognition that ecosystem functioning is vitally important for people, biological diversity and overall environmental quality;
- (b) Management is too site-specific and does not take into consideration the interlinkage with other sites;
- (c) Lack of an integrated consideration of nature and culture;
- (d) Too much emphasis on either the species characteristics (uniqueness, rarity) or on establishing protected areas;
- (e) Too little emphasis on the fact that the major part of the world's biological diversity lies outside protected areas;

- (f) Not all stakeholders in the management of any given ecosystem might be involved to a sufficient degree or in an integrated manner;
 - (g) Inappropriate assignment of costs and benefits, due to market distortion and failure, perverse incentives and lack of consideration of the values of public goods and services from ecosystems;
 - (h) A failure to integrate or coordinate with other sectoral interests. Agriculture, environment, forestry, fisheries, health, planning etc., including nature conservation, are often managed separately by different governmental bodies or others in a non-integrated way which is often to the detriment of biological diversity and people.
15. In order to overcome those shortcomings and deficiencies, an ecosystem approach should be taken, *inter alia*, for the following reasons:
- (a) The ecosystem concept helps to define the appropriate management level to meet the three objectives of the Convention.
 - (b) Functioning ecosystems are indispensable for the survival of human beings and future generations as well as the global environment, as the Convention recognizes the intrinsic value of biological diversity.
 - (c) Biological diversity is inextricably linked to ecosystem processes, functioning and resilience.
 - (d) Ecosystem understanding allows effective or sustainable use.
 - (e) People frequently move among ecosystems, and often use different ecosystems to satisfy their needs.
 - (f) Humans are frequently seen as external to ecosystems even when they are residents within them.
 - (g) The ecosystem approach allows the use of both indigenous and local knowledge, innovations and practices including traditional management systems and scientific thinking.
 - (h) Place appropriate emphasis on the range of goods, services and information which ecosystems provide to humanity, including

- food
- construction materials
- medicines, biochemicals and genetic information for pharmaceuticals
- wild genes for domestic plants and animals
- tourism and recreation
- maintaining hydrological cycles
- cleansing water and air
- maintaining the gaseous composition of the atmosphere and regulating climate
- pollinating crops and other important plants
- generating and maintaining soils
- storing and cycling essential nutrients
- absorbing and detoxifying pollutants of human origin
- satisfying spiritual and cultural needs
- providing sources of beauty and inspiration
- providing opportunities for research

3. *What are the principles of an ecosystem approach ?*

16. As they are all complementary and interlinked, the principles below need to be read in conjunction with each other. Together they characterize the ecosystem approach.

17. All involved in implementing the ecosystem approach should remain accountable to their constituencies for the consequences of management actions. The ecosystem approach should include a system of accountability that addresses performance of managers and decision-makers, and achievement of management objectives. Management actions should strive for efficiency, effectiveness and equity. They should be taken with precaution.

1. Management objectives are a matter of societal choice*Rationale :*

Different sectors of society view ecosystems in terms of their own economic, cultural and social needs. Ultimately, all ecosystems are managed for the benefit of humans-whether that benefit is consumptive or non-consumptive.

2. Management should be decentralized to the lowest appropriate level*Rationale:*

Decentralized systems can lead to greater efficiency, effectiveness and equity. The closer the management is to the ecosystem, the greater is the responsibility, accountability, participation, and use of local knowledge.

3. Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems*Rationale:*

Management interventions in ecosystems often have unknown or unpredictable effects on other ecosystems and therefore need careful consideration and analysis. This may require institutions for decision-making which lead to appropriate compromises and trade-offs.

4. Recognizing potential gains from management there is a need to understand the ecosystem in an economic context. Any ecosystem management program should

(a) reduce those market distortions that adversely affect biological diversity;

(b) align incentives to promote sustainable use;

(c) internalize costs and benefits in the given ecosystem to the extent feasible.

Rationale:

- 1) The greatest threat to biological diversity lies in its replacement by alternate systems of land use. This often arises through mar-

ket distortions which undervalue natural systems and populations and provide perverse incentives and subsidies to favor the conversion of land to less diverse systems.

- 2) Often those who benefit from conservation do not pay the costs associated with conservation and, similarly, those who generate environmental costs (e.g. pollution) escape responsibility. Alignment of incentives allows those who control the resource to benefit and ensures that those who generate environmental costs will pay.

5. A key feature of the ecosystem approach includes conservation of ecosystem structure and functioning.

Rationale:

Ecosystem functioning and resilience depends on a dynamic relationship within species, among species and between species and their abiotic environment as well as physical and chemical interactions within the environment. The conservation of these interactions and processes is of greater significance for the long-term maintenance of biological diversity than simple protection of species.

6. Ecosystems must be managed within the limits to their functioning.

Rationale:

In considering the likelihood or ease of attaining the management objectives, attention must be given to the environmental conditions which limit natural productivity, ecosystem structure and functioning. The limits to ecosystem functioning may be affected to different degrees by temporary, unpredictable or artificially maintained conditions and, accordingly, management should be appropriately cautious.

7. The ecosystem approach should be undertaken at the appropriate scale.

Rationale:

The approach should be bounded by spatial and temporal scales that are appropriate to the objectives. Boundaries for management will be defined operationally by users, managers, and scientists. The ecosystem ap-

proach is based upon the hierarchical nature of biological diversity characterized by the interaction and integration of genes, species and ecosystems.

8. Recognizing the varying temporal scales and lag effects which characterize ecosystem processes, objectives for ecosystem management should be set for the long term.

Rationale :

Ecosystem processes are characterized by varying temporal scales and lag effects. This inherently conflicts with the tendency of humans to favor short term gains and immediate benefits over future ones.

9. Management must recognize that change is inevitable.

Rationale:

Apart from their inherent dynamics of change, ecosystems are beset by a complex of uncertainties and potential "surprises" in the human, biological and environmental realms. The ecosystem approach must utilize adaptive management in order to anticipate and cater for such changes and events and should be cautious in making any decision with may fore-close options.

10. The ecosystem approach should seek the appropriate balance between conservation and use of biological diversity.

Rationale:

There has been a tendency in the past to manage components of biological diversity either as protected or non-protected. There is a need for a shift to more flexible situations where conservation and use is seen in context and the full range of measures are applied in a continuum from strictly protected to human-made ecosystems.

11. The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices.

Rationale:

Information from all sources is critical to arriving at effective ecosystem management strategies.

12. The ecosystem approach should involve all relevant sectors of society and scientific disciplines.

Rationale:

Most problems of biological diversity management are complex with many interactions, side-effects and implications, and therefore should involve the necessary expertise and stakeholders at the local, national, regional and international level, as appropriate.

4. Conclusions and Recommendations

18. The participants of the Workshop conclude that these 12 principles provide a good basis for discussion and suggest them to the CBD community (Parties, international organizations, non-governmental organizations, representatives of local and indigenous communities and non-parties) and the scientific community at large for further discussion and elaboration. The principles will have to be taken from a conceptual realm and made operational. Furthermore there are many dilemmas involved in establishment of management objectives between stakeholders within an area, between local communities and central authorities, between a managed area and areas outside etc. Procedures and methodologies for arriving at balanced trade-offs are necessary.

19. The participants of the Workshops offer their findings on the concept of the ecosystem approach and its principles to the fourth meeting of the Conference of the Parties to be held in Bratislava from 4 to 15 May 1998 as a basis for initial consideration of the ecosystem approach. This report should be circulated by the Clearing-house mechanism so that further discussion is fostered.

20. The Conference of the Parties might wish to give a mandate for further work to the SBSTTA and include the ecosystem approach into the medium and long-term programme of work. This work should also be carried out through intersessional activities.

DOCUMENT UNEP/CBD/COP/4/Inf.18 [see p. 2]**Recommendations on Scientific Research that should be Undertaken to Achieve the Implementation of Articles 7, 8, 9, 10 and 14 of the Convention on Biological Diversity, Mexico City, March 98****Introduction**

DIVERSITAS is a programme established in 1991 to promote the science of biodiversity, including its origin, composition, ecosystem function, maintenance and conservation. It entered a new phase in 1995, expanding its activities, incorporating new sponsoring organisations and enlarging its administrative capacity. It is co-sponsored by IUBS, SCOPE, UNESCO, ICSU, IGBP-GCTE and IUMS. DIVERSITAS has ten Programme Elements each focused on a fundamental scientific question about biodiversity, which are outlined in an operational plan.

In its restructuring, the DIVERSITAS programme has endeavored to coordinate its activities in close co-operation with the Convention on Biological Diversity (CBD). A workshop held prior to the third meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 3) in Montreal is an example of this co-operation, all of which led to the signing of the Memorandum of co-operation between the CBD Secretariat and DIVERSITAS in 1997. In accord with the terms of reference of the Memorandum and the Article 24 (d), the Executive Secretary of the CBD Secretariat requested that DIVERSITAS carry out a scientific review of Articles 7, 8, 9, 10 and 14 of the CBD.

There is a growing need to enhance the ability of the Convention to draw on available scientific and technical knowledge to further the implementation of the Convention. This need became apparent following a preliminary review of the first 80 national reports submitted to the Secretariat of the Convention on its implementation at the national level.

Prior to the DIVERSITAS Convenors' (of the Programme Elements) Meeting held in Mexico City in March 1998, a Workshop of DIVERSITAS experts was convened to review Articles 7, 8, 9, 10, and 14 of the CBD. The agenda of this Workshop was prepared in close co-operation with the Convention Secretariat and other relevant agencies. The report which follows is the outcome of the Workshop and the attend-

ees hope the recommendations will be of use to both the Conference of the Parties (COP) to the CBD and SBSTTA.

For each of the articles that were reviewed, the rationale and specific recommendations are provided. It is recognised that the implementation of these recommendations should be in accordance with national, regional, and global priorities and needs within the broader framework provided by the CBD.

General Recommendations

One of the key steps to be taken in implementing the Convention is to find new ways of linking different scientific disciplines and of breaking down artificial boundaries, especially between basic and applied science and socio-economic and cultural research. The need to continue to apply pure biological and ecological research in support of understanding and explaining the fundamental basis of biodiversity science is paramount. In addition, new integrated scientific programmes are needed that concentrate on the application of science in managing and sustainably using biodiversity in different societies.

The scientific community should work to ensure that both an ecosystem approach and a species-based approach are combined, using the best scientific and technical knowledge to enable biodiversity conservation, sustainable use and human welfare to be managed in an integrated way.

The application of the ecosystem approach where conservation and sustainable use are seen in close context necessitates new approaches in development of management tools. Ecosystem modeling, in which socio-economic factors are included, needs to be further developed. Conservation and sustainable use practices outside protected areas need to be strengthened.

Article 7. Identification and Monitoring

Article 7(a)

Rationale

The characterisation and quantification of the world's biodiversity depends crucially on knowledge of its different components as well as of

the magnitude of the interactions between them and the characteristic scales of space and time in which they operate.

Probably only 13% of species on Earth have been discovered and described (Global Biodiversity Assessment 1995), and the diversity of taxonomic groups such as bacteria, archaea, fungi, and protozoa is only beginning to be appreciated.

The lack of professionally trained taxonomists for many economically and socially important groups of organisms and the general decrease in the numbers of such taxonomists being trained, has been recognised by the COP of the CBD (Decision II-2) in the establishment of a concerted and sustained Global Taxonomy Initiative. Detailed actions and implementations relating to this need were explored in a recent meeting organised by the Smithsonian Institution and Environment Australia, the results of which are published as the "Darwin Declaration". Those objectives outlined by the Declaration need to be achieved in the broad sense at the same time as the specific recommendations below are implemented. The value of taxonomy, as a means to predict the response and potentials of related organisms, is of considerable importance to agriculture, human health, fisheries and forestry.

The genetic variation within populations, between species, and at levels above the species is poorly understood, but is essential for understanding the origin and maintenance of biodiversity, ecosystems and their conservation and sustainable use.

Recommendations

1. Action should be taken to accelerate the inventory of the world's species diversity according to a set of well-defined priorities, including those mentioned in Annex 1 of the CBD.
2. The development of more efficient systems for the naming and registering the names of newly discovered organisms of all kinds should be promoted, in co-operation with the internationally mandated scientific bodies and the International Committee on Bionomenclature. The needs of countries with few taxonomists and limited literature resources should be taken into account, and name changes that do not arise from new knowledge should be further minimized.

3. Efforts should be made to accelerate the genetic characterisation of populations and species. Research should focus on, but not be restricted to, the needs of agriculture, including food security, human health, forestry and fisheries, economic development, sustainable use, ecosystem structure and function, and conservation, and as noted in Annex 1 of the CBD.
4. Agreement should be reached on common procedures for inventorying microorganisms and other poorly known taxonomic groups, with emphasis on those important for human health and biotechnology.
5. Efforts should be made to accelerate the production of national and regional Floras, Faunas and species surveys of Microbiota, field guides, and electronic interactive identification tools and other innovative approaches. These products should be readily accessible (free of charge whenever possible) to potential users.
6. Produce an electronic list of the worlds species that is as complete and reliable as possible. The Species 2000 project that is associated with DIVERSITAS, has been initiated to fill this need, and Parties may wish to endorse this initiative.
7. Accelerate the characterisation and classification of habitats, ecosystems, landscapes and seascapes according to national, regional and global needs and priorities.
8. Improve techniques to measure ecosystem structure and function and undertake experiments to clarify the relationships between biological diversity and ecosystem resilience.
9. Following established procedures such as those of IUCN, a "Red List" approach should be developed for the identification of threatened habitats and ecosystems in order to respond to human impacts and promote resource management and sustainable use.
10. Develop models and perform experiments to determine the effects of diversity at the level of genes, species and functional groups on basic ecosystem processes and ecosystem stability.

Article 7(b)

Rationale

SBSTTA has recognised the need for a global scheme for monitoring components of biodiversity to determine the extent to which the objectives of the Convention are being met. This is also reflected in the decision to produce a Global Biodiversity Outlook (GBO), which will largely be based on the individual Country Reports. Issues to be addressed include:

- developing agreement on the components to be measured and baseline protocols for sampling that allow changes in biodiversity in time and space to be determined,
- establishing means whereby all nations can take advantage of technological developments to implement comparable, affordable methodologies,
- developing agreements on means of access to data and in formats that can be readily compared,
- developing adequate means for assessing the status of ecosystems and species,
- developing adequate means for assessing the resources offering the greatest potential for sustainable use.

It should be noted that all the above require long-term commitments by the Parties.

Recommendations

1. A range of appropriate tools (including aerial photography, satellite imagery for surface temperature, height, and multi-spectral colour, multi-beam and side-scan sonar systems to measure aquatic bathymetry, and physical models to measure patterns of hydrodynamic processes) should be used to obtain land/water-use statistics and a broad overview of temporal changes in the extent and fragmentation of vegetation types and other land/seascape features and to design other monitoring schemes.
2. A network of long-term monitoring sites should be established and maintained in both terrestrial and marine realms to document temporal changes in components of biodiversity and associated processes. This

should build on existing field stations, marine laboratories, monitoring schemes and sites such as biosphere reserves and other similar areas, and should address an increasing range of taxa.

3. Methods should be developed for standardising monitoring techniques and steps taken to coordinate and disseminate these.

4. Greatly increased efforts should be made to provide a more comprehensive assessment of the status of species, both in terms of taxonomic groups covered and geographic scale, following the Red List approach. Such Red Lists should be revised on a regular basis wherever possible.

5. Methods should be identified and selected among those already existing, or developed if necessary, to assess the status of ecosystems and habitats; the status of fragile (ecosystems easily subject to human destruction) should be monitored according to the Red List strategy proposed in recommendation 7a.

6. Efforts should be made to inventory those species that are being exploited by humans as food, fuel, fodder, timber, medicine and industrial uses.

7. Methods should be developed to determine which of the species identified in (5) are sustainably exploited by humans.

8. Rapid assessment and monitoring technologies (RAT) should be promoted and their use encouraged.

9. A review should be undertaken of the feasibility of applying the concepts of "indicator groups" or "indicator species" as a means of monitoring components of biodiversity. Indicators should not be used as a substitute for basic information on biodiversity.

10. Scientific criteria for monitoring should be applied to:

- (a) evaluation of traditional use of resources,
- (b) evaluation of sustainable use of species and ecosystems,
- (c) development and evaluation of land and water use practices, and
- (d) development of criteria for species and habitat protection (see Article 8).

11. The development of international programmes of an intermediate time scale should be stimulated to assess the impact on biodiversity of large-scale bioturbation phenomena such as El Niño, extensive and his-

torically unusual fires, and river dynamics, by monitoring selected sites. The development of a biological diversity component should be undertaken within existing global monitoring programmes such as GOOS, GTOS, etc.

Article 7(c)

Rationale

Human activities impact on biodiversity and ecosystem functioning. Intensification in land use, environmental pollution, use of fire in deforestation and shifting cultivation, etc. adversely affect biodiversity at three levels of organisation: genetic, organismal and ecological. Human activities also affect biodiversity indirectly through the combustion of fossil fuels and the consequent alteration of the atmospheric composition and the climate; the burning of fuels and other activities influence the chemical composition of the environment as a whole, not only in the atmosphere, but also at the levels of the oceans (both the water column and sediments) and soils. The economic and social problems resulting from over-exploitation and loss of biodiversity can be prevented or ameliorated by understanding their causal relationships with biodiversity. Only a handful of the many services provided by biodiversity currently have a market value. This gap in our understanding leads to under-evaluation of natural ecosystems and over-exploitation.

Consequently, a quantification and valuation of all the services that biodiversity provides to humans will be useful. A better understanding of the socio-economic determinants of over-exploitation will allow the identification of incentives to prevent over-exploitation.

Recommendations

1. A better understanding of the relationship between different activities and their direct and indirect effects on biodiversity is needed. These studies should encompass the major ecosystems of each biome, and use all available tools from manipulative experiments to descriptive studies and the analysis of long term data sets.
2. Research needs to be undertaken so as to identify thresholds in the response of biodiversity to intensification of land and water use. (Ecological systems often present a non-linear response to human intervention

such as minor changes in biodiversity due to increasing levels of use, up to a point beyond which dramatic losses of biodiversity occur.)

3. Research should be carried out to assess the impact on biodiversity of all measures intended to improve environmental conditions. For example, it would be important to assess the effects of plantation forestry for carbon sequestration and "sustainable" timber production in areas of potentially species-rich forests.
4. Research on the impact of climatic change on biodiversity should be strengthened and integrated with research underpinning the implementation of the Climate Convention. One of the ways this can be carried out is through the utilisation of existing global and regional pollution programmes.
5. More research is needed to have a better understanding of natural vs. human-driven changes in biodiversity.

Article 7(d)

Rationale

The accessibility of data from systematic inventories and monitoring is essential for the conservation and sustainable use of biodiversity. Unfortunately, much of the information on the three billion specimens which reside in existing collections, and of the related literature, is not integrated or easily accessible. Furthermore, the fact that the vast majority of biological collections and systematic research centres are located in the developed world, whereas most biodiversity is to be found in developing nations, is an impediment that needs to be addressed. Detail on this is provided in the Darwin Declaration.

Recommendations

1. Priorities should be established for databasing the massive amount of information in existing taxonomic collections and associated literature, that is currently not readily accessible.
2. The electronic capture of the above data, in conjunction with the CBD Clearing House Mechanism, should be supported and accelerated.
3. More sophisticated biodiversity information systems, including innovative software and hardware advances, should be developed.

4. A major effort should be undertaken to establish electronic interchange within and between systematic research collections by providing free access on the Internet.
5. Systems for data and information exchange should be developed, or when applicable, reinforced, particularly in those countries where scientific libraries are scarce or absent.

Article 8. *In-Situ Conservation*

8 (a)-(e)

Rationale

A comprehensive and representative system of protected areas is critical to conserve biodiversity, but such a system will inevitably represent only a small proportion of land or ocean areas (9% for terrestrial /... areas). The largest fraction of the Earth's surface is subject to the impacts of low to medium human intervention, while a moderate but increasing fraction is heavily impacted by intensive agriculture, urbanisation and pollution. Areas where human intervention is present but at a low enough level to maintain a high level of diversity are likely to play an increasing role in the conservation and management of biodiversity on the world scale. Here new approaches for *in-situ* conservation combined with sustainable use practices should be developed.

At the core of such a new approach, a national protected area system should be established with the aim of:

- maximising the conservation of biodiversity;
- viewing protected areas as part of the landscape matrix, rather than as islands connected by nature-friendly corridors (the "bioregional approach") so as to create a "conservation matrix" which contributes to local economies and human welfare;
- putting into place an integrated management framework for those landscapes.

Recommendations

1. General criteria should be defined for establishing protected areas. These criteria should take into account the extent to which the major bi-

omes are represented, diversity at the genetic, species and ecosystem levels, and uniqueness of species and ecosystems.

2. The special needs of extreme environments such as hot springs, soda and salt lakes, for microbial diversity should be recognised.

3. The UNESCO Man and the Biosphere programme, with its world network of biosphere reserves should be utilised, as it provides an important framework for experimentation in the field of protected areas and sustainable use of land- and seascapes. The IUCN World Commission on Protected Areas (WCPA) and UNESCO World Heritage Convention are specifically involved in protected area work. co-operation with the CBD and SBSTTA should be encouraged, and particularly the use and evaluation of the IUCN Protected Area categories.

4. Criteria should be sought that favour the development of regional networks of protected areas, especially in the open-sea and deep-sea marine environments.

5. Protected areas should, whenever possible, be established across latitudinal or altitudinal gradients to conserve and manage biodiversity in the face of future climate changes. More research is needed to develop the best scientific basis for the design and implementation of such networks.

6. New policies and measures should be developed that complement protected areas, particularly the reduction of negative human impacts in areas that are important for biodiversity. Favouring low-impact ecosystems, in particular those exploited using traditional practices (see 8(j)), may be an efficient and cost-effective way of preserving biodiversity.

Article 8(f)

Rationale

Ecosystems:

The rehabilitation and restoration of degraded ecosystems is an intervention into an ecological process which constantly varies due to internal and external factors, including human intervention, and which may have different successional paths leading to different states of equilibrium. A key question in restoration efforts is: to which state does one want to restore a given degraded natural system? Much of restoration ecology is based on empirical, locally derived experience, and a scientific

background, that permits extrapolation of results and prediction of responses, still needs to be developed. There has been little evaluation of the success or failure of restoration programmes, and in particular there has been a failure to establish whether restoration has resulted in the successful establishment or re-establishment of specific ecosystem functions and values.

Species:

Recent experience suggests that the reintroduction and translocation of species is only likely to be a viable option for a small proportion of macroorganisms and some invertebrates. Very few successful examples have been recorded to date and their effectiveness is difficult to judge due to the short timescales involved and the need for subsequent monitoring. Various guidelines that exist are largely pragmatic rather than being based on sound scientific knowledge. While tools are now being developed to predict long-term demography and genetics, a better understanding is still required of population growth and extinction processes and the reasons why particular species are rare.

Recommendations

Ecosystems:

1. Clear goals with realistic objectives should be set prior to undertaking restoration and rehabilitation programmes using reference ecosystems.
2. Efforts should be made to understand the effectiveness of restoration and rehabilitation programmes on the recovery or establishment of ecosystem functioning and the overall species inventory.
3. Restoration and rehabilitation programmes should, where appropriate, be more scientifically based, and relevant theory should be developed to support the carrying out of such work.
4. Efforts should be made to assess the socio-economic viability and long-term effectiveness of restoration and rehabilitation programmes and develop guidelines as to how this should be achieved, especially in the context of sustainable development.
5. Further research should be developed on organisms and biogeochemical processes that can contribute to rehabilitate polluted ecosystems.

Species:

1. A detailed assessment should be made of those species introduction and recovery programmes which have already been undertaken, with a view to drawing on this experience.
2. Research should be undertaken aimed at predicting the demographic and evolutionary potential of re-introduced populations, that depend on parameters such as population size, life stage, and initial genetic variability.
3. Long-term monitoring should be complemented with both modeling and controlled experiments.

Article 8(h)

Rationale

Recognising the threats posed by invasive species to economic productivity, ecological stability and biodiversity in general, this clause of Article 8 prescribes that contracting parties should as far as possible prevent the introduction, control or eradicate alien species that threaten ecosystems, habitats or species. In fact, invasive species often represent the greatest threat to biodiversity after habitat destruction. Invasives are not only pervasive and potentially damaging, but because of limited data, practical expertise, and inadequate social and legal mechanisms, our capacity to deal with them is somewhat limited. Because this field of study has not until recently had an experimental base, our capacity to predict which species will be invasive is still limited.

Knowledge of the receiving environment is needed as well as of the characteristics of the species themselves. We do not know why some systems are more invisable than others, or why invasibility may vary with time.

Recommendations

1. An assessment is needed of the changing nature of the vectors of invasives, particularly patterns of trade.
2. An evaluation should be made as to how far, and in what ways, global change, in its broadest extent, may exacerbate the problem of invasives.

3. An early warning system should be developed to enable nations to benefit from the knowledge of others. Emphasis should be on those microbes, plants and animals that are doing the greatest damage.
4. An examination should be made of which quarantine practices and legal instruments have been most successful in preventing the importation of potential invaders.
5. Knowledge of best practices in terms of the highest degree of control in the most environmentally benign manner must be made widely available, and ways of sharing both knowledge and expertise need to be developed.
6. Greater efforts should be devoted to developing biocontrol and integrated pest management techniques and the use of environmentally safe bioengineered organisms, and to devising better ways of assessing the success of any control effort. These efforts will assure that biocontrol efforts do not result in unwanted secondary consequences on biodiversity.
7. Actions to implement the above recommendations form part of the collaborative Global Invasive Species Programme (GISP), coordinated by SCOPE in conjunction with IUCN, UNEP and CABI, and a component of the DIVERSITAS programme, which COP is invited to endorse and support.

Article 8(j)

Rationale

Traditional communities which have developed a close relationship with the natural environment are particularly important to understanding and managing biological diversity. These relationships may change over time, but are presently under particular threat. In making decisions on the conservation, sustainable use and management of biodiversity at species and ecosystem levels both modern science and traditional knowledge systems have to be employed.

Recommendations

1. Within the SBSTTA framework, a forum should be provided whereby modern science and traditional knowledge can jointly define research projects regarding implementation of this clause of Article 8.

2. Research on the application of traditional use methods should be undertaken with the full participation of traditional communities.
3. Methodologies and procedures should be developed for recording and conserving traditional knowledge on the conservation and sustainable use of biological diversity.
4. Efforts should be made to identify those areas in which loss of traditional knowledge is occurring rapidly, so that appropriate steps can be taken to prevent this loss.
5. Research is needed into ways in which traditional practices for the use of biological diversity mimic natural processes and maintain the functioning of ecosystems and how these practices can continue to be used.
6. Research needs to be undertaken on providing options that will allow local communities to adapt to new lifestyles while at the same time retaining as far as possible their traditional knowledge, procedures, and biological diversity.
7. The complex relationships between national legislation and traditional lifestyles and use of components of biodiversity need to be carefully explored in attempting to implement this clause of Article 8.
8. Provision should be made for the education and training of the younger generations of local communities in traditional knowledge and practices.
9. Full integration of traditional knowledge (particularly that of traditional sustainable practices) into the process of developing management plans and programmes should be assured, including through the development of appropriate institutional mechanisms.

Article 8 (k)

Rationale

Any legislation and regulatory provisions developed for threatened species and populations must take into account the different levels of knowledge available on those species and populations identified as threatened. In many cases little is known about the ecology and biology of many species included on national and regional Red Lists. For many organisms, especially plants, their survival may be dependent on obliga-

tely associated beneficial organisms (e.g. mycorrhizal fungi, nitrogen-fixing bacteria, pollinating birds or insects). Any measures introduced for their conservation should therefore recognise that species do not exist in isolation.

Recommendations

1. Legal or other instruments drawn up for the protection of threatened species and populations should, where appropriate, also take into account obligately associated beneficial species that are necessary for the survival of the targeted threatened species.
2. In drawing up legal or other regulatory protection for threatened species or populations, specialist advice should be sought to ensure that provisions are made to undertake research that might enhance the possibility of conserving them.

Article 8(m)

Rationale

Considerable experience in both traditional and modern approaches to biodiversity conservation and utilisation exists in both developed and developing countries. Despite the relatively long history of international programmes on this issue, there is still an urgent need to strengthen capacity in developing countries and for developed countries to benefit from knowledge of traditional biodiversity management systems.

Recommendations

1. Support for interaction, both south/south and north/south between biodiversity specialists should be increased, especially through the establishment of joint projects and capacity-building networks.
2. The compilation of "best practice" manuals and training courses should be promoted for application in both developed and developing countries, so as to address in-situ biodiversity management problems through bringing together experience gained in addressing similar problems in different countries.
3. Support should be given to increasing participation by developing country workers in scientific symposia, workshops and seminars.

Article 9. *Ex-Situ* Conservation

Rationale

Ex-situ conservation is an essential component of biodiversity management. The wide interpretation of the concept of genetic resources implied in the Convention will require a policy adjustment for both *ex-situ* and *in-situ* management. *Ex-situ* conservation activities are very diverse, covering seed banks, microbial culture collections, zoos, botanic gardens, tissue and cell culture, cryopreserved material and including whole organisms, seeds, pollen, spores, embryos, semen and DNA. Importantly, however, for the majority of organisms on earth, no *ex-situ* collections have been made and there is a strong taxonomic bias in those which do exist (e.g. less than 10% of plants represented in gene banks, 18% of described microorganisms). The justification for *ex-situ* collections depends on the group of organisms, they may be essential for the identification and subsequent study of material (and biotechnological application in the case of microorganisms), to supply material for breeding programmes (crop plants), captive breeding (endangered animal species) and education. Reintroduction and translocation of *ex-situ* propagated organisms is only likely to be a viable option for a small proportion of cases.

Recommendations

1. A mechanism needs to be devised for the implementation of clauses (a) and (b) of this Article (adopting measures and establishing and maintaining facilities for *ex-situ* conservation), given that the vast majority of collections are not under direct governmental control. To be effective, this will need to take into account the diverse interest groups and coordination at a local level.
2. A long-term commitment, infrastructural support and training are required for the maintenance of *ex-situ* collections in the country of origin. The UNESCO MIRCENS are an important element for microbial collections.
3. A system of monitoring, control and protection needs to be put in place for the many *ex-situ* collections where no such agreements exist, such as the FAO undertaking on plant and animal genetic resources. A system is needed especially for all kinds of microbial genetic resources and botanic garden collections.

4. An in-depth assessment of the availability, location and status of *ex-situ* collections of all groups is urgently needed. The programmes of the WFCC and the WDCM have made considerable progress with respect to collections of micro-organisms.
5. Evidence should be sought from the many well-documented examples of biological invasions as to which species are most likely to be successful candidates for reintroduction (see also Article 8 (f)).
6. Because the success of reintroductions cannot be judged in the short term, arrangements should be made for post-release monitoring of such attempts where nonesuch already exists.
7. Systems of control and regulation of reintroductions should be put in place, because of the potentially hazardous consequences for biodiversity (ref. Article 8(f)).
8. Close attention should be paid to traditional knowledge regarding *ex-situ* conservation of genetic resources at grass roots level (ref. Article 8(j)).
9. Methodologies and techniques need to be developed for sampling genetic diversity, especially when dealing with wild as opposed to domestic species (especially for plants), when establishing and maintaining *ex-situ* collections.
10. Much more effort is needed to identify accurately and characterise the material in *ex-situ* collections.
11. More research is needed on problems such as seed recalcitrance and germination, as yet uncultured microorganisms, poor breeding success in endangered animals, DNA handling and curation and the collection of environmental genetic samples.
12. A body needs to be established to help coordinate the activities of the different *ex-situ* constituencies listed in the rationale. Issues such as databasing, curation standards and commercial exploitation of genetic resources are common to some, if not all *ex-situ* activities, and it is highly likely that efforts are being needlessly duplicated due to lack of communication among different sectors of the *ex-situ* community.

Article 10. Sustainable Use of Components of Biological Diversity

Rationale

To ensure the sustainable use of components of biodiversity in a given area, the ecosystem approach should be applied. The ecosystem approach is based on the application of appropriate scientific methodologies focused on levels of biological organisation which encompass the essential processes and interactions amongst organisms and their environment. The ecosystem approach recognises that humans are an integral component of ecosystems. (This definition of 'ecosystem approach' was developed at a Workshop co-hosted by the Governments of Malawi and the Netherlands, recently held in Lilongwe.)

If possible the precautionary principle should be applied whenever natural resources are utilised. The use of biological resources must be viewed in an integrated context that satisfies the needs of both long-term resource sustainability and environmental conservation.

More selective harvesting techniques that are less destructive of non-target species in any area that is exploited should be developed and applied; and lessons should be learned from effective traditional exploitation methods by local communities.

Recommendations

1. A network of co-ordinated databases on wild species that are being used by humans should be established (ref. Article 7 (b)) once an inventory has been made.
2. Criteria should be established for sustainable use, based on the population dynamics of the target species and on the effects of their use on the exploited system.
3. Complementary research is needed in population biology of target species and on how exploitation of some populations in a given ecosystem affects the functioning of the total system, for example its robustness and resilience. (i.e. the consequences of fisheries on the genetic diversity of the exploited populations and the functioning of aquatic systems to which they belong.)

4. Research is needed on the relationships between socio-economic factors, and the achievement of sustainable use should be promoted to demonstrate economic efficiency of sustainable practices.
5. The use of alien species in ecosystems should not occur unless a thorough scientific analysis of their possible negative effects on biodiversity has been carried out (ref. Article 8(h)).

Article 14. Impact Assessment and Minimizing Adverse Impacts

Rationale

Sound methods of assessing and communicating the impacts of factors potentially affecting the conservation of biodiversity as envisaged in Articles 14 (a) and 14 (d) must be developed and implemented. It is also important that the assessments focus more on providing early warnings of incipient problems rather than recording damage at a stage where it may be irreversible. Some adverse impacts may be wide-ranging and have effects beyond the limits of particular ecosystems or national boundaries. The use of comparable assessment systems over as wide a geographic area as possible is therefore advantageous.

Populations, or the status of single species or even groups of organisms may be affected by an array of diverse factors not necessarily indicative of more general changes. Thus, methods based on a wide range of organisms are more likely to be indicative of changes of general concern.

In view of the vast number and size of the areas requiring continuous impact analysis, it is imperative that assessment techniques be usable after minimal training by non-specialists, including conservation officers, reserve managers, and local communities.

It should be noted that some of the bioindication approaches developed in temperate regions, and which have been effectively employed by non-specialists and even school-children (e.g. in surveys of air and water pollution), can also be used in tropical countries, and that some progress to this end has already been made in UNEP/GEF sponsored discussions on how to establish a Tropical Areas Bioindicator System (TABS).

Recommendations

1. Environmental impact assessment procedures should be strengthened by techniques that enable users to access the appropriate knowledge base for impact prediction and conflict resolution.
2. The assessment methods employed should be based on a suite of organisms that respond to similar types of perturbations (whether environmentally or human-induced), and that provide early warnings of potential threats at the ecosystem level. These methods should be designed so that they can be employed over wide geographical areas by non-specialists, including local communities.

List of Acronyms and Abbreviations

CABI	Commonwealth Agriculture Bureau International
CBD	Convention on Biological Diversity
COP	Conference of the Parties (to the Convention on Biological Diversity)
FAO	Food and Agriculture Organisation of the United Nations
GBO	Global Biodiversity Outlook
GCTE/IGBP	Global Change and Terrestrial Ecosystems/International Geosphere Biosphere Programme
GEF	Global Environment Facility
GISP	Global Invasive Species Programme (DIVERSITAS - SCOPE, IUCN, UNEP, CABI)
GOOS	Global Ocean Observing System (IOC, WMO, UNEP, ICSU)
GTOS	Global Terrestrial Observing System (FAO, WMO, UNESCO, UNEP, ICSU)
ICSU	International Council of Scientific Unions
IOC	Intergovernmental Oceanographic Commission (UNESCO)
IUBS	International Union of Biological Sciences
IUCN	The World Conservation Union
IUMS	International Union of Microbiological Societies

MAB	Man and the Biosphere Programme (UNESCO)
MIRCENS	Microbial Resources Centres (UNESCO)
RAT	Rapid Assessment and Monitoring Technologies
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice (to the Conference of Parties of the Convention on Biological Diversity)
SCOPE	Scientific Committee on Problems of the Environment (ICSU)
TABS	Tropical Areas Bioindicator System
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WCPA	World Commission on Protected Areas (IUCN)
WDCM	World Data Centre on Microorganisms, Japan
WFCC	World Federation for Culture Collections
WMO	World Meteorological Organisation (United Nations)

**Paragraphs 39-41 of document UNEP/CBD/COP/3/12
Activities that have or are likely to have an adverse impact
on biological diversity [see p. 28]**

3.3 Proximate threats

39. The following factors may have a direct effect on biological diversity:

- (a) Overharvest or overkill of wild species;
- (b) Introduced species as competitors, predators, carriers of disease, or habitat disruptors;
- (c) Habitat destruction or deterioration through conversion, fragmentation, or changing habitat quality;
- (d) Pollution by toxins (e.g., heavy metals, radioactive contaminants), changing nutrient balances (e.g., eutrophication, acid rain), or physical contaminants (e.g., sedimentation and/or siltation); and

- (e) Climate change, either locally or globally.

3.4 Categories of activities leading to these threats

40. The following categories of human activity may lead to the proximate threats listed above:

- (a) unmanaged harvest of wild species for consumption;
- (b) killing of wild species as pests or weeds;
- (c) deliberate introduction of exotic species;
- (d) accidental introduction of exotic species;
- (e) conversion of land to settled agriculture;
- (f) improper management of land;
- (g) shifting cultivation on too short a cycle;
- (h) overstocking by domestic livestock;
- (i) accidental or deliberate burning, or change in natural fire regime;
- (j) mining/dredging;
- (k) dam construction;
- (l) canalisation;
- (m) road construction;
- (n) urbanisation;
- (o) overuse for recreational reasons;
- (p) drainage of wetlands;
- (q) burning of fossil fuels;
- (r) use of potentially polluting chemicals in agriculture;
- (s) use of potentially polluting chemicals in industrial processes;
- (t) production of polluting chemicals as a by-product of industrial processes; and
- (u) production of human effluent and other domestic waste products.

3.5 Ultimate causes of these threats

41. Within the context of human society, most of these threats can ultimately be attributed to six main factors:

- (a) land tenure;

- (b) population change;
- (c) cost-benefit imbalances;
- (d) cultural factors;
- (e) misdirected economic incentives; and
- (f) national policy failure.

Recommendation II/8 of SBSTTA (excerpt) [see p. 56]

The SBSTTA also identified the following research and technological priorities:

- Building the scientific foundation and methodologies necessary to advance the elaboration and implementation of criteria and indicators for forest quality and biodiversity conservation as part of sustainable forest management;
- Analysing the role of biodiversity in forest ecosystem functioning;
- Analysing measures for mitigating the underlying causes of biodiversity loss;
- Advancing scientific and technical approaches to
 - a) rehabilitating degraded and deforested ecosystems; and
 - b) enriching biodiversity in forest plantations;
- Identifying gaps in knowledge in the areas of fragmentation and population viability, to include mitigation options such as corridors and buffer zones;
- Assessing ecological landscape models, the integration of protected areas in the ecosystem approach to sustainable forest management and the representativeness and adequacy of protected areas networks;
- Analysing scientifically the ways in which human activities, in particular forest management practices, influence biodiversity and assessing ways to minimize or mitigate negative influences;
- Developing assessment and valuation methodologies for the multiple benefits derived from forest biodiversity.

Recommendation III/4 of SBSTTA [see p. 50]

Agenda item 6: Review of ongoing activities on Agricultural Biological Diversity

The SBSTTA

Taking note of the important information contained in document UNEP/CBD/SBSTTA/3/6 and in the supporting documents, both those that had been provided by the Food and Agriculture Organization of the United Nations (FAO) following the seventh session of the Commission on Genetic Resources for Food and Agriculture (CGRFA) (UNEP/CBD/SBSTTA/3/Inf.6, Inf.7 and Inf.8) and those prepared specifically for the third meeting of SBSTTA (UNEP/CBD/SBSTTA/3/Inf.9, Inf.10, Inf.20 and Inf.21),

1. *Congratulates* the secretariat for the significant progress made in initiating the review of the identification and assessment of ongoing activities and instruments at international and national levels, and in particular the proposed process outlined for the development of a multi-year work programme to implement decision III/11 and the focus provided on farming systems and agro-ecosystems approaches, contained in document UNEP/CBD/SBSTTA/3/Inf.10. The SBSTTA notes that the completion of this review, well ahead of its consideration at the next meeting of the SBSTTA, is a top priority,
2. *Thanks* the Government of the Netherlands for its support in facilitating the joint secretariat of the Convention on Biological Diversity - Food and Agriculture Organization of the United Nations technical workshop,
3. *Congratulates* the Food and Agriculture Organization of the United Nations for its work to promote the implementation of decision III/11,
4. *Commends* the establishment of collaboration between the secretariat of the Convention on Biological Diversity and FAO in response to decision III/11 and related decisions and, noting the important progress made, encourages the further development of the joint collaboration between the Convention on Biological Diversity and FAO, so as to reflect the results of the analysis of activities and instruments at international level and the identification of gaps and complementarities resulting from the review,

5. *Notes* the progress made by the CGRFA at its seventh session in May 1997, and recalls the importance, for the implementation of the Convention of Biological Diversity, of a successful conclusion to the negotiation for the adaptation of the International Undertaking in harmony with the objectives of the Convention,
6. *Acknowledges* the complexity of agricultural biological diversity and the breadth and cope of decision III/11; notes the need to address ecosystems, species and genetic levels, to focus on the interface between environment and agriculture and to consider linkages with other ecosystems; and further notes the importance of agricultural biological diversity in ensuring food security and sustainable development and the need for countries to recognize the importance of agricultural biological diversity as an integral component of their overall biodiversity strategies,
7. *Emphasizes* the importance for the conservation and sustainable use of agricultural biological diversity of respecting the knowledge, innovations and practices deriving from traditional farming systems,
8. *Agrees* to expand the focus placed on soil micro-organisms in Annex 2 of decision III/11 to address all soil biota, so as to include other key organisms such as earthworms,
9. *Welcomes* the efforts being made by GEF to incorporate agricultural biological diversity into its operational programmes, revised operational criteria for enabling activities, and short-term response measures,
10. *Notes* the granting, to the secretariat of the Convention of Biological Diversity, of observer status in the Committee on Trade and Environment of the World Trade Organization, and *supports* the proposed collaboration between these bodies, and with FAO, in order to consider ways to develop a better appreciation of the relationship between trade and agricultural biological diversity and to initiate the identification of issues that will need to be addressed by the Conference of the Parties, while providing an opportunity for Parties and Governments to provide inputs,
11. *Further notes* that relevant information, at national, regional and global levels, should be made available through the clearing-house mechanism and that this mechanism should be used as widely as possible to promote the transfer and development of technology and information exchange,

12. *Agrees* that work undertaken on the development of indicators for agricultural biological diversity be carried out in context of recommendation III/5,

13. *Notes* the contributions received to date in response to paragraphs 1 to 6 of decision III/11, *emphasizes* the importance of the identification and assessment of relevant activities and existing instruments related to agricultural biological diversity to be conducted at national level, and *hopes* that such information will become more widely available following further contributions and submission of the first national reports,

14. *Recommends* that the Conference of the Parties:

(a) Note the significant progress made so far in initiating the development of the multi-year work programme on agricultural biological diversity called for in decision III/11;

(b) Encourage the Executive Secretary, in collaboration with FAO, to continue ongoing efforts to compile and assess the findings of the review being conducted by Governments and Parties and by international and regional organizations, and to seek closer collaboration with other relevant United Nations bodies, as well as with other regional and international organizations, in particular the Consultative Group on International Agricultural Research (CGIAR) centres, and including non-governmental organizations, with a view to drawing on their experience and expertise;

(c) Reaffirm that the reporting on, and development of, the multi-year work programme is an iterative and phased process;

(d) Provide guidance to GEF and invite other funding institutions to assist countries with the implementation of decision III/11, in particular, through responding to urgent and priority national needs.

Recommendation III/5 of SBSTTA [see p. 2]**Agenda item 7.3: Current approaches to indicator development and recommendations for a preliminary core set of indicators of biological diversity, particularly those related to threats, and options for capacity-building in developing countries in the application of guidelines and indicators for subsequent national reports***The SBSTTA*

Reaffirming the vital importance of indicators of all levels of biological diversity in the implementation of the Convention, particularly with respect to Article 7, and *recognizing* the need to provide urgent, practical advice to Parties in the implementation of identification and monitoring;

Having examined the documents prepared by the Executive Secretary in consultation with a liaison group concerning recommendations for a core set of indicators of biological diversity (UNEP/CBD/SBSTTA/3/9 and UNEP/CBD/SBSTTA/3/Inf.13);

1. *Considers* that these provide a good basis for the development of further work on indicators and *generally supports* the proposed work programme on indicators as set out in UNEP/CBD/SBSTTA/3/9;
2. *Stresses* that the primary role of indicators in this context should be as a tool for management of biological diversity at local and national levels and assessing the implementation of the Convention, but *recognizes also* that they may have a wider role, for example in increasing public awareness;
3. *Stresses* that, in the future, the development of regional and global indicators will be necessary to assess specific aspects of the world's biological diversity;
4. *Stresses also* that all work undertaken by the secretariat and any liaison group on indicators should be integrated with any work on indicator development undertaken within thematic areas under the Convention, for example concerning forests, inland water ecosystems and agricultural biological diversity;

5. *Recognizes* that the development and application of indicators requires the collection and analysis of data on a continuing basis, and that this is likely to be a costly activity;

6. *Recognizes* also that every attempt should be made to avoid duplication of effort in the development and application of indicators;

7. *Recommends* to the Conference of the Parties:

(a) That any liaison group on indicators of biological diversity have as wide as possible a range of expertise, both geographical and sectoral, represented on it;

(b) That the secretariat and any such liaison group be requested to ensure that all their work on indicators take as full as possible account of other relevant indicator initiatives undertaken by different international processes and organizations, particularly those relating to sustainable development and biological diversity;

(c) That the secretariat and any such liaison group be requested to develop a key set of standard questions, using as a basis the material on pages 12 and 13 of document UNEP/CBD/SBSTTA/3/Inf.14;

(d) That the secretariat and any such liaison group be requested to compile a set of principles for designing national-level monitoring programmes and indicators. These should address matters such as:

- (i) the way indicators relate to management questions;
- (ii) the ability to show trends;
- (iii) the ability to distinguish between natural and human-induced change;
- (iv) the ability to provide reliable results (i.e. through the establishment of standard methodologies);
- (v) the degree to which indicators are amenable to straightforward interpretation;
- (vi) the question of baselines for measurement, in light of the fact that application of a pre-industrial baseline may often prove problematic;

(e) That the Executive Secretary be requested to invite countries and relevant organizations to forward case studies to the secretariat. The secretariat and any liaison group should use these to provide a menu of possible approaches and a synthesis of best practice and lessons, to provide further advice to Parties on identification and monitoring;

(f) That consideration be given to providing means for regional co-ordination of indicator development;

(g) That Parties be urged to share relevant experience concerning the development and application of indicators through the clearing-house mechanism and other means; and also be urged to include in their future National Reports specific reference to indicator development activities and their capacity to implement indicators;

(h) That the need for capacity-building in indicator development and application be stressed;

(i) That the work programme on indicators as set out in Table 5 of UNEP/CBD/SBSTTA/3/9 be adopted, as amended, in the annex to the present recommendation.

Annex to recommendation III/5

Preliminary outline of work under the two-track approach

ACTIVITY	DETAILS	WAYS AND MEANS	TIME SCALE
FIRST TRACK			
Roster of experts	Establish a roster based upon submissions of names by Contracting Parties, countries and relevant organizations	Secretariat	Immediately
Contributions	Contact relevant institutions and processes to seek information and expertise, and to explore collaboration	Secretariat	Immediately

Annex to recommendation III/5 (continued)

ACTIVITY	DETAILS	WAYS AND MEANS	TIME SCALE
FIRST TRACK			
Further development of indicator framework, including standard questions and principles	Incorporate recommendations from SBSTTA 3 and other reports	Liaison group, incorporating further expertise	Further meeting in 1997 if funds available
Support from financial mechanism	Liaison with GEF secretariat on methodologies and priorities for supporting national development of indicators	Secretariat	Ongoing
Development of menu of indicators in thematic areas	Case studies (compilation and synthesis) of indicators for coastal and marine, agro-biological diversity, forest and freshwater systems	Liaison group	For SBSTTA 4
Capacity assessment	Questionnaire distributed to countries following agreement on indicator framework and analysis of first national reports	Developed by secretariat with assistance of liaison group	Questionnaire ready by COP-4
Training	Development of methodology sheets, guidelines and public information	Liaison group	Guidelines by SBSTTA 4
Training	Development of training systems to meet identified needs	Liaison group	After COP-4
Agreed indicator framework	Recommendations made available to Parties for inclusion in the second national report	Secretariat	As soon as available, and one year prior to deadline for report
Global Biodiversity Outlook	Data from initial national report and other sources for inclusion in GBO-2	Secretariat	Publication likely by COP-5

Annex to recommendation III/5 (continued)

ACTIVITY	DETAILS	WAYS AND MEANS	TIME SCALE
SECOND TRACK			
Research and development	Develop research proposal		Submission to agencies by mid-1999
Pilot programme	Set up pilot programmes to develop and test indicators		Completed by May 1999
Second set of indicators	Further development of indicators		Available for preparation of third national reports

Recommendation III/1 of SBSTTA (Excerpt) [see p. 17]

[The SBSTTA recommended] "That, at the earliest opportunity, the Conference of the Parties should further encourage the Executive Secretary of this Convention and the Secretary-General of the Ramsar Convention to elaborate a work plan that ensures co-operation, and avoids overlap between the two conventions, noting the Memorandum of co-operation with the Ramsar Convention, and decision III/21 of the Conference of the Parties, whereby the Ramsar Convention would be a lead partner in inland water ecosystems;"

Note to fourth preambula paragraph of decision IV/IC [see p. 3]

SBSTTA recommendations III/1, III/2, and III/3 relating to alien species were incorporated by the Conference of the Parties into the following decisions:

IV/4, Annex 1, paras 8(c) (iv); 9(e) (IV); and 9(h) (Inland water ecosystems)

IV/5, Annex, C, programme element 5 (Marine and coastal ecosystems)

IV/7, Annex, paras 35 and 51 (Forest biological diversity)

IV/13, para 1 (Additional guidance to the financial mechanism).

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