



# CONVENTION ON BIOLOGICAL DIVERSITY

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CONFERENCE OF THE PARTIES TO THE  
CONVENTION ON BIOLOGICAL DIVERSITY  
Fifth meeting  
Nairobi, 15-26 May 2000  
Item 3 of the provisional agenda\*

## DRAFT DECISIONS FOR THE FIFTH MEETING OF THE CONFERENCE OF THE PARTIES

### Note by the Executive Secretary

#### I. INTRODUCTION

*This present note contains elements of the various draft decisions that have been proposed by the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), the Inter-Sessional Meeting on the Operations of the Convention (ISOC), the Panel of Experts on Access and Benefit-sharing, the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions, the Bureau of the Intergovernmental Committee for the Cartagena Protocol on Biosafety (ICCP) and, where appropriate, the Executive Secretary. These elements are presented within the framework of the provisional agenda for the fifth meeting of the Conference of the Parties (document UNEP/CBD/COP/5/1). The relevant item of the agenda is presented in bold.*

*The document has been prepared to assist Parties in their preparation for the fifth meeting of the Conference of the Parties. Minor editorial adjustments have been made to some proposals in order to improve their relevance to the meeting. Preambular language has not normally been included. Headings have been included or retained in square brackets for reasons of clarity and guidance and will not necessarily be included in the final text of any decision. The origin or source of the elements is indicated at the beginning of the draft decision.*

#### II. ELEMENTS OF DRAFT DECISIONS BY ITEMS OF THE AGENDA

##### II. ADOPTION OF REPORTS

*In accordance with previous practice, the annotated agenda invites the Conference of the Parties to take note of the reports presented by subsidiary bodies and take up substantive matters raised in these reports under the relevant item of the agenda. Text for decisions to this effect are provided below by the Executive Secretary for each report for which this approach has been suggested (items 9, 10, 11 and 14 of the provisional agenda).*

\* UNEP/CBD/COP/5/1.

## **9. Reports from the Subsidiary Body on Scientific, Technical and Technological Advice.**

### The Conference of the Parties

1. Takes note of the report of the fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, held in Montreal from 21 to 25 June 1999, contained in document UNEP/CBD/COP/5/2, bearing in mind that recommendations – IV/1 (programme of work); IV/2 (global taxonomy initiative); IV/3 (sustainable use of terrestrial biological diversity); IV/4 (alien species); IV/5 (genetic use restriction technologies); IV/6 (Impact Assessment); IV/7 (sustainable use of biological resources) - contain advice on matters that have been considered under relevant items of the agenda of the present meeting.

2. Takes note of the report of the fifth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, held in Montreal from 31 January to 4 February 2000, contained in document UNEP/CBD/COP/5/3, bearing in mind that recommendations V/1 (Cooperation with other bodies), V/2 (Pilot phase of the clearing-house mechanism), V/3 (Review of the Global Taxonomy Initiative), V/4 (Alien species: guiding principles for the prevention, introduction and mitigation of impacts), V/5 (Inland water biological diversity), V/6 (Marine and coastal biological diversity: implementation tools for the programme of work and coral bleaching), V/7 (Forest biological diversity: status and trends and identification of options for conservation and sustainable use), V/8 (Biological diversity of dryland, Mediterranean, arid, semi-arid, grassland and savannah ecosystems: options for the development of a programme of work), V/9 (Agricultural biological diversity: assessment of ongoing activities and priorities for a programme of work), V/10 (Ecosystem approach: further conceptual elaboration), V/11 (Development of indicators of biological diversity), V/12 (Sustainable use of the components of biological diversity: identification of sectoral activities that could adopt biodiversity-friendly practices and technologies), V/13 (Establishment of guidelines for the second national reports, including indicators and incentive measures), V/14 (Ad hoc technical expert groups: terms of reference, and roster of experts and proposal on a uniform methodology for their use) contain advice on matters that have been considered under relevant items of the agenda of the present meeting.

## **10. Report of the Inter-Sessional Meeting on the Operations of the Convention.**

### The Conference of the Parties

Takes note of the report of the first meeting of the Inter-Sessional Meeting on the Operations of the Convention, held in Montreal from 28 to 30 June 1999, contained in document UNEP/CBD/COP/5/4, bearing in mind that recommendations - 1 (Review); 2 (Panel of Experts on Access and Benefit-sharing); 3 (intellectual property); 4 (*ex situ* collections) - contain advice on matters that have been considered under relevant items of the agenda of the present meeting.

## **11. Report of the Working Group on the Implementation of Article 8(j) and Related Provisions.**

### The Conference of the Parties

Takes note of the report of the meeting of the Working Group on the Implementation of Article 8(j) and Related Provisions, held in Seville from 27 to 31 March 2000, contained in document UNEP/CBD/COP/5/5, bearing in mind that its recommendations contain advice on matters that have been considered under relevant items of the agenda of the present meeting.

## **12. Report on the status of the Biosafety Protocol.**

*The following draft decision and proposed plan of work was proposed by the Bureau of the ICCP (see document UNEP/CBD/COP/6/Add.1 and Corr.1 (English only))*

## The Conference of the Parties

1. Endorses the proposed work plan for the Intergovernmental Committee for the Cartagena Protocol on Biosafety as contained in the annex to this decision;
2. Requests the Executive Secretary to invite the private sector to contribute to the development and/or strengthening of human resources and institutional capacities in biosafety for the purpose of the effective implementation of the Protocol, in particular in developing country Parties, and to report on progress made to the first meeting of the Parties;
3. Recognizing the need to ensure that the first meeting of the Conference of the Parties serving as the meeting of the Parties to the Protocol is held no later than 12 months after the entry into force, decides [NOTE: Any decision of the Conference of the Parties on this matter would result in a determination regarding either the date of an ordinary meeting of the COP and/or an extraordinary meeting of the COP (eg that either take place one year after the entry into force of the Protocol). Depending on when it is anticipated that the Protocol will enter into force it maybe taken pursuant to item 7 of the agenda "date and venue of the sixth meeting of the COP".]
4. Requests the Executive Secretary to convene a meeting of technical experts on the Biosafety Clearing-House prior to the first meeting of the Intergovernmental Committee for the Cartagena Protocol on Biosafety to explore some of the issues identified under item 2 of the work programme for the first meeting of the Intergovernmental Committee for the Cartagena Protocol as contained in the annex to this decision.

## Annex

### A. Issues for consideration by the ICCP at its first meeting

1. Decision-making procedures (Article 10, para. 7, Article 5, Article 6)

Issue: Identification of basic elements for appropriate procedures and mechanisms to facilitate decision-making by Parties of import.

2. Information-sharing (Article 20, Article 19)

Issues:

- Determination of needs of Parties
- Overview of existing activities/systems and possibilities for cooperation
- Design of data input systems
- Development of common formats for reporting, e.g: decisions, national legislations, points of contact, focal points, summaries of risk assessments etc.
- Development of operational systems, information management policies and procedures for receiving and making information available, including quality-insurance procedures
- Establishment of a mechanism to ensure confidentiality of information.
- Financial and technological resources requirements

3. Capacity-building (Article 22, Article 28)

Issues:

- Identification of the needs of Parties

- Establishment and role of the roster of experts
- Overview of completed activities in the field of biosafety (e.g. capacity-building workshop in Mexico)
- Overview of existing programmes/projects/activities and possibilities for cooperation (e.g. UNEP activities and possible role)
- Multilateral, regional and bilateral cooperation and the need for common understanding and harmonization
- Involvement of private sector
- Elements of capacity-building with respect to risk assessment and management in accordance with Article 15, Article 16 and Annex III of the Protocol
- Role of the Secretariat of the Convention
- Financial and technological resources requirements.

4. Handling, transport packaging and identification (Article 18)

Issues:

- Requirements regarding documentation accompanying living modified organisms intended for direct use as food, feed or for processing.
- Need for and modalities of developing standards with regard to identification, handling, packaging and transport practices.

5. Effective implementation of the Protocol (Article 29, para. 4)

Issue: Identification and determination of the needs and mechanisms necessary for complete and effective implementation of the Protocol (i.e., with regard to the procedures), not foreseen by its provisions, and, in particular, the identification of any other decision necessary, including:

- Recommendations on any matters necessary;
- The establishment of such subsidiary bodies as are deemed necessary;
- The identification of where the services and cooperation of, and information provided by, competent international organizations and intergovernmental and non-governmental bodies is appropriate to be sought and utilized; and
- The identification of the exercise of any other function that may be required.

6. Compliance (Article 34)

Issues:

- Elements for compliance regime
- Options for a compliance mechanism

B. Issues for consideration by the ICCP at its second meeting

1. Liability and redress (Article 27)

Issue: Elaboration of a draft recommendation on the process for elaboration of a liability and redress regime including, inter alia:

- Review of existing relevant instruments (Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, North American Free Trade Agreement, European Union agreements, the Lugano Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment, etc.)
  - Preparation of draft elements for a liability and redress regime.
2. Monitoring and reporting (Article 33)  
Issue: Format and timing for reporting.
  3. Secretariat (Article 31)  
Issue: Development of a programme budget for the biennium following the entry into force of the Protocol.
  4. Guidance to the financial mechanism (Article 28, para. 5)  
Issue: Elaboration of guidance for the financial mechanism.
  5. Rules of procedure for the meeting of the Parties (Article 29, para. 5)  
Issue: Adoption of rules of procedure.
  6. Elaboration of a draft provisional agenda for MOP-1

Items for continued consideration from the first meeting of the ICCP

7. Decision-making procedures (Article 10, para. 7, Article 5, Article 6)  
Issue: draft minimum requirements for appropriate procedures and mechanisms to facilitate decision-making by Parties of import.
8. Information-sharing (Article 20)
9. Handling, transport, packaging and identification (Article 18)
10. Compliance (Article 34)
11. Capacity-building (Article 22, Article 28, para. 3)

### **13. Report of the Global Environment Facility.**

*The Conference of the Parties usually takes note of this report as part of its decision on further guidance to the financial mechanism (see item 18.1).*

### **14. Report of the Panel of Experts on Access and Benefit-sharing.**

The Conference of the Parties

Takes note of the report of the meeting of the Panel of Experts on Access and Benefit-sharing, held in San José from 4 to 8 October 1999, contained in document UNEP/CBD/COP/5/8, bearing in mind that its conclusions contain advice on matters that have been considered under item 23 of the agenda of the present meeting.

**15. Report of the Executive Secretary on the administration of the Convention and the budget for the Trust Fund of the Convention.**

*The Conference of the Parties does not normally take note of this report. A decision on the programme budget is taken pursuant to item 20 of the agenda for the present meeting. The suggestions of the Executive Secretary arising from the experience of the administration of the Convention are contained in the draft decision for item 20.*

**III. REVIEW OF THE IMPLEMENTATION OF THE PROGRAMME OF WORK**

**16. Thematic areas:**

**16.1 Progress report on the implementation of the programme of work on the biological diversity of inland water ecosystems diversity, marine and coastal biological diversity, and forest biological diversity (implementation of decisions IV/4, IV/5, IV/7);**

**[Inland waters]**

*The following is based on SBSTTA recommendation V/5.*

The Conference of the Parties

1. Notes the various ways and means to implement the programme of work on inland water biological diversity and obstacles in implementing some aspects of the work plan of the Subsidiary Body on Scientific, Technical and Technological Advice;

2. Endorses the proposed joint work plan 2000-2001 of the Convention on Biological Diversity and the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (UNEP/CBD/SBSTTA/5/INF/12), bearing in mind that not all Parties to the Convention on Biological Diversity are Parties to the Ramsar Convention;

3. Encourages Parties to address the lack of information on the status of inland water biological diversity at the national level and to include this information in their national reports;

4. Requests the Executive Secretary to compile systematically information on the implementation of the programme of work on inland water biological diversity for dissemination through the clearing-house mechanism and to report on it as part of the review of the work programme that the Subsidiary Body on Scientific, Technical and Technological Advice will carry out at its eighth meeting;

5. Invites relevant organizations and activities, in particular the Global International Waters Assessment, to contribute to the assessment of inland water biological diversity and to fully integrate a biological diversity component in its methodology protocol.

**[Marine and coastal]**

*The following is based on SBSTTA recommendation V/6, by paragraph 7 of which, SBSTTA requested the COP to consider “the need for arrangements to make resources available to support the implementation of specific actions identified in paragraph 5 of the present”. This recommendation has not been include in this draft decision, because to the extent that these actions require support from the Secretariat and other bodies of the Convention the matter will be consider under item 20 (budget) and to the extent that such actions require support from the financial mechanism and other donors the practice has been to consider them collectively under item 18 of the agenda. Furthermore, with respect to guidance to the financial mechanims ISOC recommended that this practice be formalized.*

*The following documents contain suggestions for the Conference of the Parties of relevance to this item of the agenda that are not repeated here.*

1. *A review of existing instruments relevant to integrated marine and coastal area management and their implications for the implementation of the Convention (document UNEP/CBD/COP/5/INF/6);*
2. *Criteria for the selection of marine and coastal protected areas (document UNEP/CBD/COP/5/INF/8);*
3. *Information on marine and coastal genetic resources, including bioprospecting (document UNEP/CBD/COP/5/INF/7); and*
4. *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 that threaten ecosystems, habitats or species (document UNEP/CBD/COP/5/INF/9).*

#### The Conference of the Parties,

1. Takes note of the tools that have been used for the implementation of the programme of work on the conservation and sustainable use of marine and coastal biological diversity and requests the Executive Secretary to report to future meetings of the Subsidiary Bodies on the application of these tools;

2. Endorses the results of the Expert Consultation on Coral Bleaching, as contained in the annex to this decision;

3. Requests the Executive Secretary to integrate fully the issue of coral bleaching in the programme of work on the conservation and sustainable use of marine and coastal biological diversity and to develop and implement a specific work plan on coral bleaching, taking into account the recommendations in the annex to the present recommendation, as appropriate, and invites Parties, other Governments and relevant bodies to contribute to its implementation. In conducting his work on coral bleaching, the Executive Secretary will liaise with, inter alia, the United Nations Framework Convention on Climate Change, the Convention on Wetlands, the United Nations Educational, Scientific and Cultural Organization (including the World Heritage Convention), the Food and Agriculture Organization of the United Nations, regional fisheries organizations, the Intergovernmental Panel on Climate Change, the Global International Waters Assessment, the Global Coral Reef Monitoring Network, and the International Coral Reef Initiative;

4. Notes that there is significant evidence that climate change is a primary cause of the recent and severe extensive coral bleaching, and that this evidence is sufficient to warrant remedial measures being taken in line with the precautionary approach and transmits that view to the United Nations Framework Convention on Climate Change and urges the United Nations Framework Convention on Climate Change to take all possible actions to reduce the effect of climate change on water temperatures and to address the socio-economic impacts on the countries and communities most affected by coral bleaching;

5. Urges Parties, other Governments and relevant bodies to implement response measures to the phenomenon of coral bleaching by:

(a) Identifying and instituting additional and alternative measures for securing the livelihoods of people who directly depend on coral-reef services;

(b) Encouraging and supporting multi-disciplinary approaches to action relating to coral-reef management, research and monitoring, including the use of early-warning systems for coral bleaching, and collaborating with the International Coral Reef Initiative and the Global Coral Reef Monitoring Network;

- (c) Building stakeholder partnerships, community participation programmes, and public education campaigns and information products that address the causes and consequences of coral bleaching;
  - (d) Using appropriate policy frameworks to implement integrated marine and coastal area management plans and programmes that supplement marine and coastal protected areas and the multiple conservation measures outlined in the Renewed Call to Action of the International Coral Reef Initiative;
  - (e) Supporting capacity-building measures, including training of and career opportunity for marine taxonomists, ecologists, and members of other relevant disciplines, particularly at the national level;
  - (f) Implementing and coordinating targeted research programmes, including predictive modeling, in the context, as appropriate, of ongoing activities referred to in paragraph 3 of the present recommendation;
6. Invites Parties, other Governments and relevant bodies to submit case-studies on the coral bleaching phenomenon to the Executive Secretary, for dissemination through the clearing-house mechanism;

### Annex

#### PRIORITY AREAS FOR ACTION ON CORAL BLEACHING

##### A. Information-gathering

Issue: Our ability to adequately project, and thus mitigate, the impacts of global warming on coral-reef ecosystems and the human communities which depend upon coral-reef services is limited by the paucity of information on:

- (a) The taxonomic, genetic, physiological, spatial, and temporal factors governing the response of corals, zooxanthellae, the coral-zooxanthellae system, and other coral-reef-associated species to increases in sea-surface temperature;
- (b) The role of coral reefs as critical habitat for marine species and natural resources for human communities;
- (c) The current status of coral-reef health and threats to coral reefs; and
- (d) The potential capacity of recovery <sup>1/</sup> of corals and resilience of the ecosystem after mass mortality.

Response:

- (a) Implement and coordinate targeted research programmes, including predictive modeling, that investigate: (1) the tolerance limits and adaptation capacity of coral-reef species to acute and chronic increases in sea-surface temperature; (2) the relationship among large-scale coral-bleaching events, global warming, and the more localized threats that already place reefs at risk; and (3) the frequency and extent of coral-bleaching and mortality events, as well as their impacts on ecological, social and economic systems;

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<sup>1/</sup> Recovery is the return of a coral colony to a state of health, including a symbiotic relationship with zooxanthellae, after the health and/or symbiotic relationship has been disrupted by a stress or perturbation. Recovery may involve a change in the genetic composition of species of the zooxanthellae. Resilience is the return of a coral reef ecosystem to a state in which living, reef-building corals play a prominent functional role, after this role has been disrupted by a stress or perturbation. A shift toward high dominance by frondose algae accompanied by a reduction in the functional role of coral would indicate a situation of low resilience.

(b) Implement and coordinate baseline assessments, long-term monitoring, and rapid response teams to measure the biological and meteorological variables relevant to coral bleaching, mortality and recovery, as well as the socio-economic parameters associated with coral-reef services. To this end, support and expand the Global Coral Reef Monitoring Network (GCRMN) and regional networks, and data-repository and dissemination systems including ReefBase - the Global Coral Reef Database. Also, the current combined Sida-SAREC and World Bank programme on coral reef degradation in the Indian Ocean (CORDIO), as a response to the 1998 coral-bleaching event, could be used as an example;

(c) Develop a rapid response capability to document coral bleaching and mortality in developing countries and remote areas. This would involve the establishment of training programmes, survey protocols, availability of expert advice, and the establishment of a contingency fund or rapid release of special project funding;

(d) Encourage and support countries in the development and dissemination of status of the reefs reports and case studies on the occurrence and impacts of coral bleaching.

Issue: The remoteness of many coral reefs and the paucity of funding and personnel to support on-site assessments of coral reefs requires that remote-sensing technologies are developed and applied in the evaluation of coral-bleaching events.

Response: Extend the use of early-warning systems for coral bleaching by:

(a) Enhancing current NOAA AVHRR HotSpot mapping by increasing resolution in targeted areas and carry out ground-truth validation exercises;

(b) Encouraging space agencies and private entities to maintain deployment of relevant sensors and to initiate design and deployment of specialized technology for shallow-oceans monitoring; and

(c) Making the products of remote sensing readily accessible to coral reef scientists and managers worldwide with a view to those scientists and managers that are based in developing countries.

#### B. Capacity-building

Issue: There is a substantial lack of trained personnel to investigate the causes and consequences of coral bleaching events.

Response: Support the training of and career opportunities for marine taxonomists, ecologists, and members of other relevant disciplines, particularly at the national and regional level.

Issue: Coral bleaching is a complex phenomenon. Understanding the causes and consequences of coral bleaching events requires the knowledge, skills, and technologies of a wide variety of disciplines. Any action aimed at addressing the issue should bear in mind the ecosystem approach, incorporating both the ecological and societal aspects of the problem.

Response: Encourage and support multidisciplinary approaches to coral-reef research, monitoring, socio-economics and management.

Issue: Public awareness and education are required to build support for effective research, monitoring, and management programmes, as well as policy measures.

Response: Build stakeholder partnerships, community participation programmes, and public education campaigns and information products that address the causes and consequences of coral bleaching.

#### C. Policy development/implementation

Issue: Nearly 60 per cent of the world's coral reefs are threatened by localized, human activities that have the potential to exacerbate the impacts of coral-bleaching events. Evaluations of the 1998

coral-bleaching events suggest that marine protected areas alone may not provide adequate protection for at least some corals and other reef-associated species as sea-surface-temperature rise.

Response: Use existing policy frameworks to implement the multiple conservation measures outlined in the Renewed Call to Action of the International Coral Reef Initiative, and develop and implement comprehensive local to national scale integrated marine and coastal area management plans that supplement marine protected areas.

Issue: Most coral reefs are located in developing countries, and the majority of the people living near coral reefs are often extremely poor. Thus, even minor declines in the productivity of coral-reef ecosystems as a result of coral bleaching events could have dramatic socio-economic consequences for local people who depend on coral-reef services.

Response: Identify and institute additional and alternative measures for securing the livelihoods of people who directly depend on coral-reef services.

Issue: Coral bleaching is relevant not only to the Convention on Biological Diversity but also the United Nations Framework Convention on Climate Change and the Convention on Wetlands. The ultimate objective of the United Nations Framework Convention on Climate Change is to reduce emissions in a manner that "allows ecosystems to adapt 'naturally' to climate change". The United Nations Framework Convention on Climate Change calls upon Parties to take action in relation to funding, insurance, and technology transfer to address the adverse effects of climate change. The Convention on Wetlands provides guidance on the conservation and wise use of wetlands, including coral reefs.

Response: Initiate efforts to develop joint actions among the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and the Convention on Wetlands to:

- (a) Develop approaches for assessing the vulnerability of coral reef species to global warming;
- (b) Build capacity for predicting and monitoring the impacts of coral bleaching;
- (c) Identify approaches for developing response measures to coral bleaching; and
- (d) Provide guidance to financial institutions, including the Global Environment Facility, to support such activities.

Issue: Coral bleaching has the potential to impact local fisheries, as well as certain high-value commercial pelagic fisheries and coastal ecosystems.

Response: Encourage the Food and Agriculture Organization of the United Nations and regional fisheries organizations to develop and implement measures to assess and mitigate the impacts of sea surface temperature rise on fisheries.

Issue: Coral-bleaching events are a warning of even more severe impacts to marine systems. If anomalous sea-water temperatures continue to rise, become more frequent, or are prolonged, the physiological thresholds of other organisms will be surpassed. Not only will local fisheries be impacted, but certain high-value commercial pelagic fisheries and coastal ecosystems will be affected as well.

Response: Emphasize that coral bleaching can be monitored as an early warning of the impacts of global warming on marine ecosystems and that the collapse of coral-reef ecosystems could impact ecological processes of the larger marine system of which coral reefs are a part.

Issue: The observations of the 1998 coral-bleaching events suggest that coral-reef conservation can no longer be achieved without consideration of the global climate system and that it requires efforts to mitigate accelerated global climate change.

Response: Emphasize the interdependencies and uncertainties in the relationships among marine, terrestrial, and climatic systems.

#### D. Financing

Issue: Because the issue of climate change is global and long-term in scale, Governments around the world need to work together to make funds available to implement initiatives to address the causes and consequences of coral bleaching.

Response: Mobilize international programmes and mechanisms for financial and technical development assistance, such as the World Bank, the United Nations Development Programme, regional development banks, as well as national and private sources to support implementation of these priority actions.

#### [Forests]

*Paragraph 3 of recommendation V/7 by which SBSTTA advised of the need for an ad hoc technical expert group on forest biological diversity has been incorporated in the draft decision on the operations of the Convention (item 19 of the agenda) where establishment of the technical expert groups is considered collectively.*

#### The Conference of the Parties

1. Urges the Parties, Governments and organizations to advance the implementation of the work programme for forest biological diversity;
2. Decides to expand the focus of the work programme from research to practical actions in order to address urgently the conservation and sustainable use of forest biological diversity, applying the ecosystem approach and taking into consideration the outcome of the fourth session of the Intergovernmental Forum on Forests;
4. Requests Parties, countries, international organizations and other relevant bodies to provide relevant information on the implementation of the work programme through, inter alia, case-studies, entries in national reports and other means, as appropriate;
5. Requests the Executive Secretary to invite the Food and Agriculture Organization of the United Nations and other forest-related bodies, institutions and processes to contribute to the assessment of status and trends, including gaps and priority actions needed to address threats to forest biological diversity;
6. Requests the Executive Secretary to liaise with the United Nations Framework Convention on Climate Change with regard to, inter alia, the Special Report on Land Use, Land-Use Change and Forestry of the Intergovernmental Panel on Climate Change, and with the Ramsar Convention on Wetlands, and to seek ways and means to integrate consideration of forest biological diversity in future activities of the United Nations Framework Convention on Climate Change addressing forests and carbon sequestration.

#### **16.2 Agricultural biological diversity: review of phase I of the programme of work and adoption of a multi-year work programme.**

#### [Programme of work]

*The following is based on SBSTTA recommendation V/9, by paragraph 3 of which, SBSTTA requests COP to consider the need for arrangements to provide financial support, in accordance with Article 21 of the Convention, for activities and capacity building for the implementation of the programme of work, is not included in this draft decision. This is because at previous meetings the practice has been to consider such suggestions collectively under the item of the agenda addressing financial issues (item 18.1 of the agenda for this meeting). Furthermore, ISOC recommended that this practice be promoted in future*

*meetings of the COP. Paragraph 1 is inserted in line with the suggestion in the note by the Executive Secretary (UNEP/CBD/COP/5/11).*

### The Conference of the Parties

1. Takes note of the assessment of ongoing activities and instruments (as contained in document UNEP/CBD/SBSTTA/5/INF/10) and its main findings as presented in document UNEP/CBD/COP/5/11.
2. Endorses the programme elements, contained in the annex to this decision, contributing to the implementation of decision III/11;
3. Urges Parties, Governments, international and regional organizations, civil-society organizations and other relevant bodies to promote, and, as appropriate, carry out, the programme of work and to promote regional and thematic cooperation, as appropriate, within this framework;
4. Requests the Executive Secretary to invite the Food and Agriculture Organization of the United Nations to continue to work together with other relevant bodies, and also to expand cooperation by inviting other relevant organizations (such as the United Nations Development Programme, the United Nations Environment Programme, the World Bank, regional development banks, the centres of the Consultative Group on International Agricultural Research and other international agricultural research centres, and IUCN-The World Conservation Union), in supporting the implementation of the programme of work, and to avoid duplication of activities.

### Annex

#### PROGRAMME OF WORK ON AGRICULTURAL BIODIVERSITY

##### A. Overall objectives, approach and guiding principles

1. The overall aim of the programme of work is to promote the objectives of the Convention in the area of agricultural biodiversity, in line with relevant decisions of the Conference of Parties, notably decisions II/15, III/11 and IV/6. This programme of work will also contribute to the implementation of chapter 14 of Agenda 21 (Sustainable agriculture and rural development). The scope of agricultural biodiversity is described in the appendix hereto.
2. More specifically, the objectives, as spelt out in paragraph 1 of decision III/11 of the Conference of the Parties to the Convention on Biological Diversity, are:
  - (a) To promote the positive effects and mitigate the negative impacts of agricultural systems and practices on biological diversity in agro-ecosystems and their interface with other ecosystems;
  - (b) To promote the conservation and sustainable use of genetic resources of actual and potential value for food and agriculture;
  - (c) To promote the fair and equitable sharing of benefits arising out of the use of genetic resources.
3. The proposed elements of the programme of work have been developed bearing in mind the need:
  - (a) To support the development of national strategies, programmes and action plans concerning agricultural biodiversity, in line with decision III/11 of the Conference of the Parties to the Convention on Biological Diversity, and to promote their integration in sectoral and cross-sectoral plans, programmes and policies;

(b) To build upon existing international plans of action, programmes and strategies that have been agreed by countries, in particular, the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture, the Global Strategy for the Management of Farm Animal Genetic Resources, and the International Plant Protection Convention (IPPC);

(c) To ensure harmony with the other relevant programmes of work under the Convention on Biological Diversity, including those relating to forest biological diversity, inland water biological diversity, marine and coastal biological diversity, and dry and sub-humid lands, as well as with cross-cutting issues such as access and benefit-sharing, sustainable use, indicators, alien species, the Global Taxonomy Initiative, and issues related to Article 8(j);

(d) To promote synergy and coordination, and to avoid duplication, between relevant programmes of various international organizations and between programmes at the national and regional levels established under the auspices of international organizations, while respecting the mandates and existing programmes of work of each organization and the intergovernmental authority of the respective governing bodies, commissions and other forums.

4. In implementing the programme of work, the ecosystem approach adopted under the Convention on Biological Diversity will be applied. The application of this approach implies, *inter alia*, intersectoral cooperation, decentralization of management to the lowest level appropriate, equitable distribution of benefits, and the use of adaptive management policies that can deal with uncertainties and are modified in the light of experience and changing conditions. The implementation process will also build upon the knowledge, innovations and practices of local communities and thus complement Article 8(j) of the Convention. A multi-disciplinary approach that takes into account scientific, social and economic issues is required.

5. The proposed programme of work has been developed in the light of the basis for action annexed to decision III/11. Its implementation, particularly the implementation of programme element 1, will shed further light on the status and trends of agricultural biodiversity.

#### B. Proposed elements of a programme of work

6. Based on the above, the following elements for a programme of work are proposed as options to be considered by the Conference of the Parties. It is important to note that the four programme elements are intended to be mutually reinforcing: outputs of certain elements would feed into others. Accordingly, the ordering of the elements does not imply sequential implementation. However prioritization of activities within each programme element will be necessary as set out in the sections on ways and means and timing of expected outputs. Within the framework of this programme of work, targeted cooperative initiatives may be launched. For example, an "International Pollinators Initiative" is proposed based on the recommendations of the Sao Paulo International Workshop on the Conservation and Sustainable Use of Pollinators in Agriculture, with Emphasis on Bees.

#### Programme element 1. Assessments

##### Operational objective

To provide a comprehensive analysis of status and trends of the world's agricultural biodiversity and of their underlying causes (including a focus on the goods and services agricultural biodiversity provides), as well of local knowledge of its management.

##### Rationale

Processes for country-driven assessments are in place, or under development, for the crop and farm-animal genetic resources components. The assessments draw upon, and contribute to, comprehensive data and information systems. There is also much information about resources that provide the basis for

agriculture (soil, water), and about land cover and use, climatic and agro-ecological zones. However, further assessments may be needed, for example, for microbial genetic resources, for the ecosystem services provided by agricultural biodiversity such as nutrient cycling, pest and disease regulation and pollination, and for social and economic aspects related to agricultural biodiversity. Understanding of the underlying causes of the loss of agricultural biodiversity is limited, as is understanding of the consequences of such loss for the functioning of agricultural ecosystems. Moreover, the assessments of the various components are conducted separately; there is no integrated assessment of agricultural biodiversity as a whole. There is also lack of widely accepted indicators of agricultural biodiversity and its various components. The further development and application of such indicators, as well as assessment methodologies, are necessary to allow an analysis of the status and trends of agricultural biodiversity and its various components and to facilitate the identification of biodiversity-friendly agricultural practices (see programme element 2).

### Activities

1.1. Support the ongoing or planned assessments of different components of agricultural biodiversity, for example, the reports on the state of the world's plant genetic resources for food and agriculture, <sup>2/</sup> and the state of the world's animal genetic resources for food and agriculture, as well as other relevant reports and assessments by FAO and other organizations, elaborated in a country-driven manner through consultative processes.

1.2. Promote and develop specific assessments of additional components of agricultural biodiversity that provide ecological services, drawing upon the outputs of programme element 2. This might include targeted assessments on priority areas (for example, loss of pollinators, pest management and nutrient cycling).

1.3. Develop methods and techniques for assessing and monitoring the status and trends of agricultural biodiversity, including:

(a) For a limited set of criteria, indicators of agricultural biodiversity to facilitate monitoring and assessment of the status and trends in different production systems and environments, and the impacts of various practices, building wherever possible on existing work, in accordance with SBSTTA recommendation V/11, on the development of indicators on biological diversity;

(b) An agreed terminology and classification for agro-ecosystems and production systems to facilitate the comparison and synthesis of various assessments and monitoring of different components of agricultural biodiversity, at all levels and scales, between countries and partner organizations; <sup>3/</sup>

(c) Data and information exchange on agricultural biodiversity, in particular through the clearing-house mechanism under the Convention on Biological Diversity, building on existing networks, databases, and information systems;

(d) Methodology for analysis of the trends of agricultural biodiversity and its underlying causes, including socio-economic causes.

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<sup>2/</sup> It should be noted that the FAO Commission on Genetic Resources for Food and Agriculture has decided that the second report on the state of the world's plant genetic resources will be prepared, only once the negotiations for the revision of the International Undertaking have been completed.

<sup>3/</sup> This would draw upon, and not seek to replace, existing classification systems for ecosystems and farming systems (e.g. eco-region, agro-ecological zones, landscapes, land evaluation systems, production systems/environments, farming systems and farm typologies, etc.), taking into account physical resources (air, climate, land, water, vegetation types), human resource attributes (population intensity, land-use pressures, settlement patterns), and degree of market integration.

### Ways and means

Exchange and use of experiences, information and findings from the assessments shall be facilitated by Parties, Governments and networks with consultation between countries and institutions, including use of existing networks.

Country-driven assessments of genetic resources of importance for food and agriculture (activity 1.1) shall be implemented, including through programmes of FAO and in close collaboration with other organizations, such as CGIAR. Resources may need to be identified to support additional assessments (activity 1.2), which would draw upon elements of existing programmes of international organizations, and the outputs of programme element 2.

This programme element, particularly activity 1.3, will be supported through catalytic activities, building upon and bringing together existing programmes, in order to develop agricultural biodiversity indicators, agreed terminology, etc., through, *inter alia*, technical workshops, meetings and consultations, e-mail conferences, preparation of discussion papers, and travel. Funding of these catalytic activities would be through the Secretariat, with in-kind contributions from participating organizations.

### Timing of expected outputs

A key set of standard questions and a menu of potential indicators of agricultural biodiversity that may be used by Parties at their national level, and agreed terminology of production environments by 2002.

Reports on the state of the world's genetic resources, as programmed, leading progressively towards a comprehensive assessment and understanding of agricultural biodiversity, with a focus on the goods and services it provides, by 2010.

## Programme element 2. Adaptive management

### Operational objective

To identify management practices, technologies and policies that promote the positive and mitigate the negative impacts of agriculture on biodiversity, and enhance productivity and the capacity to sustain livelihoods, by expanding knowledge, understanding and awareness of the multiple goods and services provided by the different levels and functions of agricultural biodiversity.

### Rationale

There are large and fairly well-defined research agendas for genetic resources for food and agriculture. These include the development of complementary conservation and use strategies, and a focus on developing the conservation and use of under-utilized species. There are also an increasing number of case-studies on, for example, farm and *in situ* conservation of genetic resources, and community integrated pest management. However, far more understanding is needed of the multiple functions of biodiversity in production systems. Much more research is needed, for example, to examine the relationship between diversity, resilience and production in agro-ecosystems.

A blend of traditional and newer practices and technologies is used in agriculture, which utilize, or impact on, agricultural biodiversity in different ways, with particular consequences for biological diversity and for the sustainability and productivity of agricultural systems. A better understanding and application of these complex interactions could help to optimize the management of agricultural biodiversity in production systems.

Such work is essential in order to meet the objectives of decision III/11 of the Conference of the Parties to promote the positive and mitigate the negative impacts of agriculture on biological diversity, and enhance productivity and capacity to sustain livelihoods.

### Activities

2.1. Carry out a series of case-studies, in a range of environments and production systems, and in each region:

(a) To identify key goods and services provided by agricultural biodiversity, needs for the conservation and sustainable use of components of this biological diversity in agricultural ecosystems, and threats to such diversity;

(b) To identify best management practices; and

(c) To monitor and assess the actual and potential impacts of existing and new agricultural technologies.

This activity would address the functions of agricultural biodiversity and the interaction between the various components, as set out in the appendix hereto with a focus on certain specific and cross-cutting issues, such as:

(a) The role and potential of wild, under-utilized and neglected species and products;

(b) The role of genetic diversity in providing resilience, reducing vulnerability, and enhancing adaptability of production systems to changing environments and needs;

(c) The synergies and interactions between different components of agricultural biodiversity;

(d) The role of pollinators, with particular reference to their economic benefits, and the effects of introduced species on indigenous pollinators and other aspects of biological diversity;

(e) The role of soil and other below-ground biodiversity in supporting agricultural production systems, especially in nutrient cycling;

(f) Pest and disease control mechanisms, including the role of natural enemies and other organisms at field and landscape levels, host plant resistance, and implications for agro-ecosystem management;

(g) The wider ecosystem services provided by agricultural biodiversity;

(h) The role of different temporal and spatial patterns in mosaics of land use, including complexes of different habitats;

(i) Possibilities of integrated landscape management as a means for the conservation and sustainable use of biodiversity.

2.2. Identify and promote the dissemination of information on cost-effective practices and technologies, and related policy and incentive measures that enhance the positive and mitigate the negative impacts of agriculture on biological diversity, productivity and capacity to sustain livelihoods, through:

- (a) Comprehensive analyses in selected production systems of the costs and benefits of alternative management practices as identified from activity 2.1, and the valuation of the goods and services provided by agricultural biodiversity;
- (b) Comprehensive analyses of the impacts of agricultural production, including their intensification and extensification, on the environment and identification of ways to mitigate negative and promote positive impacts;
- (c) Identification, at international and national levels, in close collaboration with relevant international organizations, of appropriate marketing and trade policies, legal and economic measures which may support beneficial practices:
  - (i) Promotion of neglected and under-utilized crops;
  - (ii) Promotion of local and indigenous knowledge;
  - (iii) Measures to add value to products of production systems that sustain biodiversity, and to diversify market opportunities;
  - (iv) Access and benefit-sharing measures and intellectual property issues;
  - (v) Economically and socially sound measures that act as incentives, in accordance with Article 11 and consistent with Article 22; and
  - (vi) Training and capacity-building in support of the above.

#### Ways and means

Case-studies will be carried out by national institutions, civil-society organizations, and research institutes, with support from international organizations for catalysing preparation of studies, mobilizing funds, disseminating results, and facilitating feedback and lessons learned to case-study providers and policy makers. Resources may need to be identified to promote such studies, to analyse the results and to provide necessary capacity-building and human-resource development, especially at the inter-community or district level. Where a need is identified, for example, through lessons learned from earlier case-studies, the Subsidiary Body on Technical, Technological Advice or the Conference of the Parties will be consulted to consider the promotion of regional or global programmes of case-studies, or focused research activities.

#### Timing of expected outputs

Thirty selected case-studies published, analysed and disseminated by 2005. The case-studies should be representative of regional issues and prioritize best practices and lessons learned that can be broadly applied.

### Programme element 3. Capacity-building

#### Operational objective

To strengthen the capacities of farmers, their communities, and organizations and other stakeholders, including agro-enterprises, to manage agricultural biodiversity so as to increase the benefits they derive from the sustainable use of agricultural biodiversity, and to promote increased awareness and responsible action.

#### Rationale

The management of agricultural biodiversity involves many stakeholders and often implies transfers of costs and benefits between stakeholder groups. It is therefore essential that mechanisms be developed not only to consult stakeholder groups, but also to facilitate their genuine participation in decision-making and in the sharing of benefits.

The sustainable management of agricultural biodiversity by farmers and their communities, in particular, is a prerequisite to achieving sustainable increases in food and livelihood security and to protecting natural resources. Decision III/11, paragraph 17 (c), of the Conference of the Parties encourages Parties to promote the "mobilization of farming communities, including indigenous and local communities for the development, maintenance and use of their knowledge and practices in the conservation and sustainable use of biological diversity in the agricultural sector". By paragraph 15 of the same decision, countries are encouraged "to set up and maintain local-level forums for farmers, researchers, extension workers and other stakeholders to evolve genuine partnerships". There is a largely unrealized potential to improve the management of various aspects of agricultural biodiversity at the level of the agro-ecosystem, through, for example, participatory breeding and selection strategies. Farmer groups, and other producer organizations, can be instrumental in furthering the interests of farmers in optimizing sustainable, diversified, production systems and consequently in promoting responsible actions concerning the conservation and sustainable use of agricultural biodiversity. Consumer organizations are also increasingly influential in this regard.

#### Activities

3.1 Promote enhanced capabilities to manage agricultural biodiversity by promoting partnerships among researchers, extension workers and farmers in research and development programmes for biological diversity conservation and sustainable use of biological diversity in agriculture. To achieve this, countries should be encouraged to set up and maintain, *inter alia*, local level forums for farmers, including indigenous farmers using traditional knowledge, researchers, extension workers and other stakeholders to evolve genuine partnerships, including training and education programmes.

3.2 Enhance the capacity of indigenous and local communities for the development of strategies and methodologies for *in situ* conservation, sustainable use and management of agricultural biological diversity, building on indigenous knowledge systems.

3.3 Provide opportunities for farmers and local communities, and other stakeholder groups, to participate in the development and implementation of national strategies, plans and programmes for agricultural biodiversity, through decentralized policies and plans, and local government structures.

3.4. Identify and promote possible improvements in the policy environment, including benefit-sharing arrangements and incentive measures, to support local-level management of agricultural biodiversity.

3.5 Promote awareness about the value and functions of agricultural biodiversity for sustainable productivity amongst producer organizations, agricultural cooperatives and enterprises, and consumers, with a view to promoting responsible practices.

3.6 Promote networks of farmers and farmers' organizations at regional level for exchange of information and experiences.

#### Ways and means

This programme element is to be implemented primarily through initiatives within countries, including through extension services, local government, educational and civil-society organizations, including farmer/producer and consumer organizations and mechanisms emphasizing farmer-farmer exchange. This programme element would engage the widest possible range of civil-society organizations, including those not normally linked to biodiversity initiatives.

Funding is likely to be on a project or programme basis. Catalytic support may need to be provided through national, regional and global programmes, organizations, facilities and funding mechanisms, in particular to support capacity-building, exchange and feedback of policy and market information, and of lessons learned from this and programme element 2, between local organizations and policy makers, nationally, regionally and globally.

#### Timing of expected outputs

Progressive establishment of local-level forums and regional networks, with a coverage target of at least 1,000 communities by 2010.

Examples at country level of operational mechanisms for participation by a wide range of stakeholder groups including civil-society organizations, by 2002.

Involvement of farmers and local communities in the majority of national programmes by 2010.

#### Programme element 4. Mainstreaming

##### Operational objective

To support the development of national plans or strategies for the conservation and sustainable use of agricultural biodiversity and to promote their mainstreaming and integration in sectoral and cross-sectoral plans and programmes.

##### Rationale

Many countries are now developing biodiversity strategies and action plans in the context of the Convention on Biological Diversity, and many also have a number of other policies, strategies and plans related to agriculture, the environment and national development.<sup>4/</sup> Moreover, countries have agreed on global action plans for major components of biological diversity, such as plant genetic resources for food and agriculture, and, in Agenda 21 and the World Food Summit Plan of Action, on plans for sustainable development and food security in general.

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<sup>4/</sup> These include agricultural sector plans, national environment action plans, national sustainable development strategies, national forestry action plans, World Bank plans for structural adjustment, etc.

In most countries, activities related to agricultural biodiversity are undertaken primarily by ministries responsible for agriculture. There is clearly a need to mainstream the action plans for components of agricultural biodiversity in sectoral development plans concerned with food, agriculture, forestry and fisheries, and to promote synergy and avoid duplication between the plans for the various components. Together with other thematic programmes of work, this could contribute to the integration of biodiversity considerations in national plans.

Development and implementation of action plans requires reliable and accessible information, but many countries do not have well developed information, communication or early-warning systems or the capacity to respond to identified threats.

### Activities

4.1. Support the institutional framework and policy and planning mechanisms for the mainstreaming of agricultural biodiversity in agricultural strategies and action plans, and its integration into wider strategies and plans for biological diversity, through:

(a) Support for relevant institutions in the conduct of assessments on the status and trends of agricultural biodiversity within the context of ongoing biodiversity and sectoral assessments;

(b) Development of policy and planning guidelines, and training materials, and support for capacity-building initiatives at policy, technical and local levels in agricultural and environmental forums for the development, implementation, monitoring and evaluation of policies, programmes and actions for the conservation and sustainable use of agricultural biodiversity; and

(c) Improved consultation, coordination, and information-sharing within countries among respective focal points and lead institutions, relevant technical committees and coordinating bodies, to promote synergy in the implementation of agreed plans of action and between ongoing assessments and intergovernmental processes.

4.2. Support the development or adaptation of relevant systems of information, early warning and communication to enable effective assessment of the state of agricultural biodiversity and threats to it, in support of national strategies and action plans, and of appropriate response mechanisms.

4.3. Promote public awareness of the goods and services provided by agricultural biological diversity, and the value and importance of such diversity for agriculture and for society in general.

4.4. Promote ongoing and planned activities for the conservation, on farm, in situ, and ex situ, in particular, in the countries of origin, of the variability of genetic resources for food and agriculture, including their wild relatives.

### Ways and means

Activities would be implemented primarily at national level through enhanced communication, coordination mechanisms and planning processes that involve all stakeholder groups, facilitated by international organizations, and by funding mechanisms.

This programme element should draw upon the experience of ongoing programmes (such as UNEP's support to national biodiversity strategies and action plans) and a critical analysis of existing practice.

National, regional and international projects and programmes that address policy and institutional development within specific sectors should make provision, as appropriate, for integration across sectors.

Similarly, the development of guidelines should be carried out within the context of the objectives of this programme element.

Resources may need to be identified to further develop or adapt early-warning systems, including the capacity to identify thresholds and action needed, and for pilot examples of effective and sustainable response mechanisms to address threats at local, national and supranational levels.

#### Timing of expected outputs

Progressively increased capacity at national level for information management, assessment and communication. Over 100 countries to participate in various assessments under activities 1.1 and 1.2 by 2005.

Coordination between sectoral assessments and plans of action at national level in the majority of countries by 2005.

Range of guidelines published at the international level (on topics to be determined according to needs at national and regional levels).

### Appendix

#### THE SCOPE OF AGRICULTURAL BIODIVERSITY

1. Agricultural biodiversity is a broad term that includes all components of biological diversity of relevance to food and agriculture, and all components of biological diversity that constitute the agro-ecosystem: the variety and variability of animals, plants and micro-organisms, at the genetic, species and ecosystem levels, which are necessary to sustain key functions of the agro-ecosystem, its structure and processes, in accordance with annex I of decision III/11 of the Conference of the Parties to the Convention on Biological Diversity.

2. The Conference of Parties has recognized "the special nature of agricultural biodiversity, its distinctive features, and problems needing distinctive solutions".<sup>5/</sup> The distinctive features include the following:

- (a) Agricultural biodiversity is essential to satisfy basic human needs for food and livelihood security;
- (b) Agricultural biodiversity is managed by farmers; many components of agricultural biodiversity depend on this human influence; indigenous knowledge and culture are integral parts of the management of agricultural biodiversity;
- (c) There is a great interdependence between countries for the genetic resources for food and agriculture;
- (d) For crops and domestic animals, diversity within species is at least as important as diversity between species and has been greatly expanded through agriculture;
- (e) Because of the degree of human management of agricultural biodiversity, its conservation in production systems is inherently linked to sustainable use;
- (f) Nonetheless, much biological diversity is now conserved ex situ in gene banks or breeders' materials;

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<sup>5/</sup> See decision II/15 of the Conference of the Parties to the Convention on Biological Diversity.

(g) The interaction between the environment, genetic resources and management practices that occurs in situ within agro-ecosystems often contributes to maintaining a dynamic portfolio of agricultural biodiversity.

3. The following dimensions of agricultural biodiversity can be identified:

(a) Genetic resources for food and agriculture, including:

- (i) Plant genetic resources including pasture and rangeland species and forest genetic resources; <sup>6/</sup>
- (ii) Animal genetic resources, including fishery genetic resources; <sup>7/</sup>
- (iii) Microbial and fungal genetic resources.

These constitute the main units of production in agriculture, including cultivated species, domesticated species and managed wild plants and animals;

(b) Components of agricultural biodiversity that provide ecological services. These include a diverse range of organisms in agricultural production systems that contribute, at various scales to, inter alia:

- (i) Nutrient cycling, decomposition of organic matter and maintenance of soil fertility;
- (ii) Pest and disease regulation;
- (iii) Pollination;
- (iv) Maintenance and enhancement of local wildlife and habitats in their landscape,
- (v) Maintenance of the hydrological cycle;
- (vi) Erosion control;
- (vii) Climate regulation and carbon sequestration;

(c) Abiotic factors, which have a determining effect on these aspects of agricultural biodiversity;

(d) Socio-economic and cultural dimensions since agricultural biodiversity is largely shaped by human activities and management practices. These include:

- (i) Traditional and local knowledge of agricultural biodiversity, cultural factors and participatory processes;
- (ii) Tourism associated with agricultural landscapes;
- (iii) Other socio-economic factors.

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<sup>6/</sup> Forest genetic resources are considered under the work programme on forest biodiversity. For the purpose of the present programme of work, the focus is on trees that are an integral part of farming systems.

<sup>7/</sup> Aspects of fishery genetic resources may be considered under the work programmes on inland waters and marine and coastal biodiversity. For the purposes of the present programme of work, the focus is on fish production that is part of farming systems.

**[Genetic Use Restriction Technologies]**

*In decision IV/6 COP requested advise from SBSTTA on Genetic Use Restriction Technologies. Accordingly, SBSTTA adopted recommendation IV/5 on "Consequences of the use of the new technology for the control of plant gene expression for the conservation and sustainable use of biological diversity" The following draft decision is taken from this recommendation.*

The Conference of the Parties

**[At the international level]**

1. Decides to continue the work in this area under the umbrella of, and integrated into, the programme of work on agricultural biological diversity;
2. Desiring to make the most efficient use of resources by avoiding duplication of effort and being cognizant of the work being undertaken and the expertise available in different forums, in particular, the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture, invites the Food and Agriculture Organization of the United Nations, in close collaboration with the United Nations Educational, Scientific and Cultural Organization, the United Nations Environment Programme and other member organizations of the Ecosystem Conservation Group (ECG), and other competent organizations and research bodies, to further study the potential implications of such technologies on the conservation and sustainable use of agricultural biological diversity and the range of agricultural production systems in different countries, and identify relevant policy questions and socio-economic issues that may need to be addressed;
3. Invites the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture and other competent organizations to inform the Conference of the Parties at its sixth meeting of its initiatives in this area;
4. Recognizing the need to better understand the intellectual-property-rights implications of genetic use restriction technologies, invites relevant organizations to study the impact of technologies on the protection of intellectual property in the agriculture sector, and its appropriateness for the agricultural sector, and to make assessments of the technologies concerned available through the clearing-house mechanism;
5. Recommends that, in the current absence of reliable data on genetic use restriction technologies without which there is an inadequate basis on which to assess their potential risks, and in accordance with the precautionary approach, products incorporating such technologies should not be approved by Parties for field testing until appropriate scientific data can justify such testing, and for commercial use until appropriate, authorized and strictly controlled scientific assessments with regard to, inter alia, their ecological and socio-economic impacts and any adverse effects for biological diversity, food security and human health have been carried out in a transparent manner and the conditions for their safe and beneficial use validated. In order to enhance the capacity of all countries to address these issues, Parties should widely disseminate information on scientific assessments, including through the clearing-house mechanism, and share their expertise in this regard.

**[At the national level]**

6. Encourages Parties and Governments to consider how to address generic concerns regarding such technologies as genetic use restriction technologies under international and national approaches to the safe and sustainable use of germplasm;

7. Reaffirming the need of Parties and Governments for additional information, and recalling Article 8(g) of the Convention on Biological Diversity, which calls on Parties and Governments to establish or maintain procedures for regulating, managing or controlling risks associated with the use and release of living modified organisms resulting from biotechnology, invites Parties to carry out and disseminate the results through the clearing-house mechanism and submit scientific assessments on, inter alia, ecological, social and economic effects of genetic use restriction technologies taking into account such information, as available, as:

- (a) The molecular biology information available;
- (b) The genetic constructs and inducers used;
- (c) Effects at the molecular level, such as site-specific effects, gene-silencing, epigenesis and recombination;
- (d) Potential positive applications of the variety-specific genetic use restriction technologies on limiting gene flow, and possible negative impacts of genetic use restriction technologies on small populations of threatened wild relatives;

and to make these assessments available through, inter alia, the clearing-house mechanism;

8. Further encourages Parties and Governments to identify ways and means to address the potential impacts of genetic use restriction technologies on the in situ and ex situ conservation and sustainable use, including food security, of agricultural biological diversity;

9. Urges Parties and Governments to assess whether there is a need to develop, and how to ensure the application of, effective regulations at national level which take into account, inter alia, the specific nature of variety-specific and trait-specific genetic use restriction technologies, in order to ensure the safety of human health, the environment, food security and the conservation and sustainable use of biological diversity and to make this information available through, inter alia, the clearing-house mechanism;

#### [Secretariat]

10. Requests the Executive Secretary to prepare a report, to be considered by the Subsidiary Body on Scientific, Technical and Technological Advice at a future meeting prior to the sixth meeting of the Conference of the Parties, on the status of development of genetic use restriction technologies and of relevant initiatives at international, regional and national levels on the basis of information provided by organizations, Parties and Governments;

11. Recognizing the importance of indigenous and local communities in the conservation and sustainable use of plant genetic resources according to Article 8(j) of the Convention, and taking into account the revision of the International Undertaking on Plant Genetic Resources for Food and Agriculture, requests the Executive Secretary to discuss with those organizations with relevant expertise and representatives of indigenous and local communities on the potential impacts of the application of genetic use restriction technologies on those communities and on Farmers' Rights in keeping with the revision of the aforementioned International Undertaking to keep, use, exchange and sell seed or propagating material and to prepare a report to be considered by the Conference of the Parties.

#### **17. Cross-cutting issues:**

##### **17.1 Ecosystem approach: adoption of principles (implementation of decision IV/1 B);**

*The following is based on SBSTTA recommendation V/10.*

### The Conference of the Parties

1. Calls upon Parties, other Governments, and international organizations to apply the ecosystem approach, in line with the principles and guidance contained in the annex to the present decision, in particular in the context of activities developed within the thematic areas of the Convention, and national policies and legislation;
2. Endorses the principles and guidance contained in the annex to this decision, as reflecting the present level of common understanding and encourages further conceptual elaboration;
3. Invites Parties, other Governments and relevant bodies to identify case-studies and implement pilot projects, and to organize, as appropriate, regional, national and local workshops, and consultations aiming to enhance awareness, share experiences, including through the clearing-house mechanism, and strengthen regional, national and local capacities on the ecosystem approach;
4. Requests the Executive Secretary to prepare a synthesis of case-studies and lessons learned;
5. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to prepare guidelines for the implementation of the ecosystem approach, on the basis of case-studies and lessons learned, and to review the incorporation of the ecosystem approach into various programmes of work of the Convention; and
6. Recognizes the need for support for capacity-building to implement the ecosystem approach. *[NOTE: to the extent that any decision of the COP on this recommendation requires support from the Secretariat and other bodies of the Convention the matter will be consider under item 20 (budget). To the extent that such actions require support from the financial mechanism and other donors the practise has been to consider them collectively under item 18 of the agenda.]*

### Annex

#### A. Description of the ecosystem approach

1. The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Thus, the application of the ecosystem approach will help to reach a balance of the three objectives of the Convention: conservation; sustainable use; and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.
2. An ecosystem approach is based on the application of appropriate scientific methodologies focused on levels of biological organization, which encompass the essential structure, processes, functions and interactions among organisms and their environment. It recognizes that humans, with their cultural diversity, are an integral component of many ecosystems.
3. This focus on structure, processes, functions and interactions is consistent with the definition of "ecosystem" provided in Article 2 of the Convention on Biological Diversity:  
  
"Ecosystem' means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit."

This definition does not specify any particular spatial unit or scale, in contrast to the Convention definition of "habitat". Thus, the term "ecosystem" does not, necessarily, correspond to the terms "biome" or "ecological zone", but can refer to any functioning unit at any scale. Indeed, the scale of

analysis and action should be determined by the problem being addressed. It could, for example, be a grain of soil, a pond, a forest, a biome or the entire biosphere.

4. The ecosystem approach requires adaptive management to deal with the complex and dynamic nature of ecosystems and the absence of complete knowledge or understanding of their functioning. Ecosystem processes are often non-linear, and the outcome of such processes often shows time-lags. The result is discontinuities, leading to surprise and uncertainty. Management must be adaptive in order to be able to respond to such uncertainties and contain elements of "learning-by-doing" or research feedback. Measures may need to be taken even when some cause-and-effect relationships are not yet fully established scientifically.

5. The ecosystem approach does not preclude other management and conservation approaches, such as biosphere reserves, protected areas, and single-species conservation programmes, as well as other approaches carried out under existing national policy and legislative frameworks, but could, rather, integrate all these approaches and other methodologies to deal with complex situations. There is no single way to implement the ecosystem approach, as it depends on local, provincial, national, regional or global conditions. Indeed, there are many ways in which ecosystem approaches may be used as the framework for delivering the objectives of the Convention in practice.

#### B. Principles of the ecosystem approach

6. The following 12 principles are complementary and interlinked, and need to be applied as a whole.

**Principle 1: The objectives of management of land, water and living resources are a matter of societal choice.**

Rationale: Different sectors of society view ecosystems in terms of their own economic, cultural and societal needs. Indigenous peoples and other local communities living on the land are important stakeholders and their rights and interests should be recognized. Both cultural and biological diversity are central components of the ecosystem approach, and management should take this into account. Societal choices should be expressed as clearly as possible. Ecosystems should be managed for their intrinsic values and for the tangible or intangible benefits for humans, in a fair and equitable way.

**Principle 2: Management should be decentralized to the lowest appropriate level.**

Rationale: Decentralized systems may lead to greater efficiency, effectiveness and equity. Management should involve all stakeholders and balance local interests with the wider public interest. The closer management is to the ecosystem, the greater the responsibility, ownership, accountability, participation, and use of local knowledge.

**Principle 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; therefore, possible impacts need careful consideration and analysis. This may require new arrangements or ways of organization for institutions involved in decision-making to make, if necessary, appropriate compromises.

**Principle 4:** **Recognizing potential gains from management, there is usually a need to understand and manage the ecosystem in an economic context. Any such ecosystem-management programme should:**

- (a) **Reduce those market distortions that adversely affect biological diversity;**
- (b) **Align incentives to promote biodiversity conservation and sustainable use;**
- (c) **Internalize costs and benefits in the given ecosystem to the extent feasible.**

Rationale: The greatest threat to biological diversity lies in its replacement by alternative systems of land use. This often arises through market distortions, which undervalue natural systems and populations and provide perverse incentives and subsidies to favour the conversion of land to less diverse systems.

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.

**Principle 5:** **Conservation of ecosystem structure and functioning, in order to maintain ecosystem services, should be a priority target of the ecosystem approach.**

Rationale: Ecosystem functioning and resilience depends on a dynamic relationship within species, among species and between species and their abiotic environment, as well as the physical and chemical interactions within the environment. The conservation and, where appropriate, restoration of these interactions and processes is of greater significance for the long-term maintenance of biological diversity than simply protection of species.

**Principle 6:** **Ecosystems must be managed within the limits of their functioning.**

Rationale: In considering the likelihood or ease of attaining the management objectives, attention should be given to the environmental conditions that limit natural productivity, ecosystem structure, functioning and diversity. 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.

**Principle 7:** **The ecosystem approach should be undertaken at the appropriate spatial and temporal scales.**

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, scientists and indigenous and local peoples. Connectivity between areas should be promoted where necessary. The ecosystem approach is based upon the hierarchical nature of biological diversity characterized by the interaction and integration of genes, species and ecosystems.

**Principle 8:** **Recognizing the varying temporal scales and lag-effects that 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 favour short-term gains and immediate benefits over future ones.

**Principle 9: Management must recognize the change is inevitable.**

Rationale: Ecosystems change, including species composition and population abundance. Hence, management should adapt to the changes. 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. Traditional disturbance regimes may be important for ecosystem structure and functioning, and may need to be maintained or restored. 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 that may foreclose options, but, at the same time, consider mitigating actions to cope with long-term changes such as climate change.

**Principle 10: The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity.**

Rationale: Biological diversity is critical both for its intrinsic value and because of the key role it plays in providing the ecosystem and other services upon which we all ultimately depend. 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 are seen in context and the full range of measures is applied in a continuum from strictly protected to human-made ecosystems.

**Principle 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. A much better knowledge of ecosystem functions and the impact of human use is desirable. All relevant information from any concerned area should be shared with all stakeholders and actors, taking into account, *inter alia*, any decision to be taken under Article 8(j) of the Convention on Biological Diversity. Assumptions behind proposed management decisions should be made explicit and checked against available knowledge and views of stakeholders.

**Principle 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.

**C. Operational guidance for application of the ecosystem approach**

7. In applying the 12 principles of the ecosystem approach, the following five points are proposed as operational guidance.

**1. Focus on the functional relationships and processes within ecosystems**

8. The many components of biodiversity control the stores and flows of energy, water and nutrients within ecosystems, and provide resistance to major perturbations. A much better knowledge of ecosystem functions and structure, and the roles of the components of biological diversity in ecosystems, is required, especially to understand: (i) ecosystem resilience and the effects of biodiversity loss (species and genetic levels) and habitat fragmentation; and (ii) determinants of local biological diversity in management decisions. Functional biodiversity in ecosystems provides many goods and services of economic and social importance. While there is a need to accelerate efforts to gain new knowledge about functional biodiversity, ecosystem management has to be carried out even in the absence of such knowledge. The

ecosystem approach can facilitate practical management by ecosystem managers (whether local communities or national policy makers).

2. Promote the fair and equitable access to the benefits derived from the functions of biological diversity in ecosystems and from the use of its components

9. Benefits that flow from the array of functions provided by biological diversity at the ecosystem level provide the basis of human environmental security and sustainability. The ecosystem approach seeks that the benefits derived from these functions are distributed equitably. In particular, these functions should benefit the stakeholders responsible for their production and management. This requires, *inter alia*: capacity-building, especially at the level of local communities managing biological diversity in ecosystems; the proper valuation of ecosystem goods and services; the removal of perverse incentives that devalue ecosystem goods and services; and, consistent with the provisions of the Convention on Biological Diversity, where appropriate, their replacement with local incentives for good management practices.

3. Use adaptive management practices

10. Ecosystem processes and functions are complex and variable. Their level of uncertainty is increased by the interaction with social constructs, which need to be better understood. Therefore, ecosystem management must involve a learning process, which helps to adapt methodologies and practices to the ways in which these systems are being managed and monitored. Implementation programmes should be designed to adjust to the unexpected, rather than to act on the basis of a belief in certainties. Ecosystem management needs to recognize the diversity of social and cultural factors affecting natural-resource use. Similarly, there is a need for flexibility in policy-making and implementation. Long-term, inflexible decisions are likely to be inadequate or even destructive. Ecosystem management should be envisaged as a long-term experiment that builds on its results as it progresses. This "learning-by-doing" will also serve as an important source of information to gain knowledge of how best to monitor the results of management and evaluate whether established goals are being attained. In this respect, it would be desirable to establish or strengthen capacities of Parties for monitoring.

4. Carry out management actions at the scale appropriate for the issue being addressed, with decentralization to lowest level, as appropriate

11. As noted in section A above, an ecosystem is a functioning unit that can operate at any scale, depending upon the problem or issue being addressed. This understanding should define the appropriate level for management decisions and actions. Often, this approach will imply decentralization to the level of local communities. Effective decentralization requires proper empowerment, which implies that the stakeholder both has the opportunity to assume responsibility and the capacity to carry out the appropriate action, and needs to be supported by enabling policy and legislative frameworks. Where common property resources are involved, the most appropriate scale for management decisions and actions would necessarily be large enough to encompass the effects of practices by all the relevant stakeholders. Appropriate institutions would be required for such decision-making and, where necessary, for conflict resolution. Some problems and issues may require action at still higher levels, through, for example, transboundary cooperation, or even cooperation at global levels.

5. Ensure intersectoral cooperation

12. As the primary framework of action to be taken under the Convention, the ecosystem approach should be fully taken into account in developing and reviewing national biodiversity strategies and action plans. There is also a need to integrate the ecosystem approach into agriculture, fisheries, forestry and other production systems that have an effect on biodiversity. Management of natural resources, according to the ecosystem approach, calls for increased intersectoral communication and cooperation at a range of

levels (government ministries, management agencies, etc.). This might be promoted through, for example, the formation of inter-ministerial bodies within the Government or the creation of networks for sharing information and experience.

#### D. Other remarks

13. The ecosystem approach should be applied in each of the thematic and cross-cutting work programmes of the Convention, based upon the 12 principles and using the five points of operational guidance derived therefrom.

14. The application of the ecosystem approach can help to promote delivery to people of the full array of benefits derived from the functions of biological diversity at the ecosystem level. Lessons learned from case-studies on the ecosystem approach that take into account the three objectives of the Convention should be widely promoted.

### **17.2 Identification, monitoring and assessment, and indicators (implementation of decision IV/1 A);**

*The following draft decision is taken from recommendation V/11 of SBSTTA.*

#### The Conference of the Parties,

1. Requests the Executive Secretary, in broad consultation with Parties and in collaboration with other relevant organizations/bodies and processes, to carry out the pending activities set out in the work programme on indicators of biological diversity as approved by decision IV/1 A of the Conference of the Parties and, in particular, to develop:

(a) A set of principles for designing national-level monitoring programmes and indicators;

(b) A key set of standard questions and a list of available and potential indicators that may be used by Parties at their national level and in national reporting also to allow for regional and global overviews on the state and trends of biodiversity and, if possible and appropriate, any responses from policy measures;

2. Encourages Parties and Governments to establish or increase regional cooperation in the field of indicators, monitoring and assessment and Invites the Executive Secretary to establish a process through which the documents mentioned above are reviewed and broadly discussed at regional workshops on the basis of national case-studies;

3. Invites Parties, Governments and organizations to undertake appropriate actions to assist other Parties (particularly developing countries) to increase their capacity to develop and use indicators. Appropriate actions may include:

(a) Provision of training;

(b) Assisting in the development of national networks;

(c) Sharing experiences between and among countries, regions and organizations involved in the development and use of indicators;

4. Requests the Executive Secretary to produce an interim report on progress for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at its sixth or seventh meetings and a final report on the conclusions of this initiative to the Conference of the Parties at its sixth meeting.

**17.3 Alien species that threaten ecosystems, habitats or species (implementation of decision IV/1 C);**

*SBSTTA considered issues of relevance to this item of the agenda at its fourth and fifth meetings. At its fourth meeting it adopted recommendation IV/4 on "Development of guiding principles for the prevention of impacts of alien species and identifying priority areas of work on isolated ecosystems and giving recommendations for further development of the Global Invasive Species Programme". By this recommendation SBSTTA requested the Executive Secretary to develop principles for the prevention, introduction and mitigation of impacts of alien species, in cooperation with GISP, and an outline for case studies on alien species. Parties, other Governments and relevant bodies were invited to urgently submit available case-studies on alien species to the Executive Secretary, to contribute to the Secretariat's work of preparing advice for the fifth meeting of SBSTTA. Recommendation IV/4 also covers a number of matters that were further considered by SBSTTA at its fifth meeting. At its fifth meeting, SBSTTA adopted recommendation V/4 on "Alien Species: guiding principles for the prevention, introduction and mitigation of impacts". The following draft decision is based on recommendation V/4.*

The Conference of the Parties,

1. Invites Parties to take into account the interim guiding principles contained in annex I to recommendation V/4 of the Subsidiary Body for Scientific, Technical and Technological Advice in the context of activities aimed at implementing Article 8(h) of the Convention on Biological Diversity;
2. Endorses the outline for case-studies contained in the annex to this decision;
3. Invites Parties to submit case-studies particularly focusing on thematic assessments to the Executive Secretary on the basis of the outline contained in the annex to this decision;
4. Requests the clearing-house mechanism to disseminate and compile these case-studies;
5. Requests the Executive Secretary, in close collaboration with the Global Invasive Species Programme, relevant organizations and other relevant international and regional binding and non-binding instruments to ensure consistency with the development of standard terminology on alien species (as referred to in paragraph 4 (f) (i) of recommendation IV/4, of the Subsidiary Body for Scientific, Technical and Technological Advice), and to further elaborate the interim guiding principles on the prevention, introduction and mitigation of the impacts of alien species, to be considered by the Subsidiary Body at its sixth meeting, in preparation for the sixth meeting of the Conference of the Parties;
6. Requests Parties, other Governments, relevant bodies and other relevant international and regional binding and non-binding instruments, in the light of discussions by the Subsidiary Body at its fifth meeting, to submit to the Executive Secretary written comments on the interim guiding principles, to be taken into account, together with the case-studies, in the further elaboration of the interim guiding principles, to be considered by the Subsidiary Body at its sixth meeting, and requests the Executive Secretary to distribute those comments through the national focal points;
7. Invites the Global Invasive Species Programme to report on its September 2000 meeting on the "synthesis of GISP phase 1" to the Subsidiary Body on Scientific, Technical and Technological Advice at its sixth meeting;
8. Requests the Executive Secretary to cooperate with other international bodies and other relevant international and regional binding and non-binding instruments, such as the Convention on the Conservation of Migratory Species of Wild Animals, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar), the Convention on the Conservation of European Wildlife and Natural Habitats, the International Plant Protection Convention and regional plant protection

organizations, Codex Alimentarius, DIVERSITAS, the Office International des Epizooties, the United Nations Educational, Scientific and Cultural Organization, and the organizations mentioned in paragraph 4 (f) of recommendation IV/4 of the Subsidiary Body for Scientific, Technical and Technological Advice, with the aim to coordinate work on alien species, and to report on potential joint programmes of work to the Subsidiary Body for Scientific, Technical and Technological Advice at its sixth meeting;

9. Requests the Executive Secretary to develop a paper, for consideration at the sixth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice and the sixth meeting of the Conference of the Parties, setting out options for future work of the Convention on Biological Diversity on alien species, which would provide practical support to Parties, Governments and organizations in the implementation of Article 8(h) of the Convention and the guiding principles on alien species;

10. Urges Parties, other Governments and relevant bodies to give priority to the implementation of alien invasive species strategies and actions plans, as soon as they are developed.

### Annex

#### OUTLINE FOR CASE-STUDIES ON ALIEN SPECIES

To the extent possible, case-studies should be short and succinct summaries of experience on alien species at the country and regional levels. A case-study should focus on the prevention of introduction, control, and eradication of alien species that threaten ecosystems, habitats or species.

Case-studies should include the following sections (a summary of the information may be provided under each heading, and a more detailed paper may be attached; if the information were not available, this should be indicated in the appropriate section):

#### 1. Description of the problem

- (a) Location of the case-study
- (b) History (origin, pathway and dates, including time-period between initial entry/first detection of alien species and development of impacts) of introduction(s)
- (c) Description of the alien species concerned: biology of the alien species (the scientific name of species should be indicated if possible) and ecology of the invasion(s) (type of and potential or actual impacts on biological diversity and ecosystem(s) invaded or threatened, and stakeholders involved)
- (d) Vector(s) of invasion(s) (e.g. of deliberate importation, contamination of imported goods, ballast water, hull-fouling and spread from adjacent area. It should be specified, if known, whether entry was deliberate and legal, deliberate and illegal, accidental, or natural)
- (e) Assessment and monitoring activities conducted and methods applied, including difficulties encountered (e.g. uncertainties due to missing taxonomic knowledge)

#### 2. Options considered to address the problem

- (a) Description of the decision-making process (stakeholders involved, consultation processes used, etc.)

- (b) Type of measures (research and monitoring; training of specialists; prevention, early detection, eradication, control/containment measures, habitat and/or natural community restoration; legal provisions; public education and awareness)
- (c) Options selected, time-frame and reasons for selecting the options
- (d) Institutions responsible for decisions and actions

### 3. Implementation of measures, including assessment of effectiveness

- (a) Ways and means set in place for implementation
- (b) Achievements (specify whether the action was fully successful, partially successful, or unsuccessful), including any adverse effects of the actions taken on the conservation and sustainable use of biodiversity
- (c) Costs of action

### 4. Lessons learned from the operation and other conclusions

- (a) Further measures needed, including transboundary, regional and multilateral cooperation
- (b) Replicability for other regions, ecosystems or groups of organisms
- (c) Information compilation and dissemination needed

#### **17.4 Global Taxonomy Initiative: implementation and further advance of the Suggestions for Action (implementation of decision IV/1 D).**

*By recommendation V/3 on "Review of the Global Taxonomy Initiative" the SBSTTA recommended that the Conference of the Parties consider the following elements of a draft decision on alien species. The SBSTTA also considered the issue at its fourth meeting and adopted recommendation IV/2 on "further advancement of a Global Taxonomy Initiative". The following draft decision is a synthesis of elements from both recommendations, but is principally based on the recommendation V/3.*

#### The Conference of the Parties,

1. Establishes a Global Taxonomy Initiative coordination mechanism to assist the Executive Secretary to facilitate international cooperation and coordinate activities under the Global Taxonomy Initiative in accordance with the terms of reference contained in the annex to this decision;
2. Urges Parties, Governments and relevant organizations to undertake the following priority activities to further the Global Taxonomy Initiative:
  - (a) The identification of national and regional priority taxonomic information requirements;
  - (b) Assessments of national taxonomic capacity to identify and, where possible, quantify national and regional-level taxonomic impediments and needs, including the identification of taxonomic tools, facilities and services required at all levels, and mechanisms to establish, support and maintain such tools, facilities and services;
  - (c) Establishment or consolidation of regional and national taxonomic reference centres;

(d) The building of taxonomic capacity in particular in developing countries, including through partnerships between national, regional and international taxonomic reference centres;

(e) Communicate to the Executive Secretary and Global Taxonomy Initiative coordination mechanism suitable programmes, projects and initiatives for consideration as pilot projects under the Global Taxonomy Initiative;

3. Requests that the Executive Secretary, with the assistance of the Global Taxonomy Initiative coordination mechanism:

(a) Draft as a component of the strategic plan for the Convention on Biological Diversity, a work programme for the Global Taxonomy Initiative defining timetables, goals, products and pilot projects, emphasizing its role in underpinning conservation, sustainable use and equitable sharing of benefits, for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice;

(b) Initiate short-term activities, in particular regional meetings of scientists, managers and policy makers to prioritize the most urgent global taxonomic needs, and facilitate the formulation of specific projects to meet the needs identified, and to report thereon to the Conference of the Parties at its sixth meeting;

(c) Synthesize the findings of previous meetings of experts on the Global Taxonomy Initiative (as contained in the note by the Executive Secretary on the review of the Global Taxonomy Initiative (UNEP/CBD/SBSTTA/5/4)), relevant sections of national reports submitted to the Conference of the Parties and recommendations of the Subsidiary Body on Scientific, Technical and Technological on the Global Taxonomy Initiative, as advice for the proposed regional meetings;

(d) Use the Global Taxonomy Initiative as a forum to promote the importance of taxonomy and taxonomic tools in the implementation of the Convention;

4. Requests all Parties and Governments to designate a national Global Taxonomy Initiative focal point, linked to other national focal points, and participate in the development of regional networks to facilitate information-sharing for the Global Taxonomy Initiative;

#### Annex

#### TERMS OF REFERENCE FOR THE COORDINATION MECHANISM OF THE GLOBAL TAXONOMY INITIATIVE

##### Mandate

Building on the guidance contained in SBSTTA recommendation V/3, the Coordination Mechanism shall assist the Executive Secretary in facilitating international cooperation and coordinating activities on matters pertaining to the implementation and development of the Global Taxonomy Initiative (GTI). The Coordination Mechanism shall work closely with the clearing-house mechanism.

##### Specific short-term activities

The Executive Secretary, with the assistance of the Coordination Mechanism, shall:

(a) Develop a work programme for the GTI, consistent with the Convention strategic plan, for the sixth or seventh meeting of SBSTTA

(b) Convene regional meetings of scientists, managers and policy makers to prioritize the most urgent global taxonomic needs for the sixth or seventh meeting of SBSTTA, and

(c) Establish mechanisms to use the GTI as a forum to promote the importance of taxonomy and taxonomic tools in the implementation of the Convention's programmes of work.

#### Membership

The Executive Secretary will select the members of the Coordination Mechanism, with due regard to geographical balance, on the basis of nominations from the organizations listed in SBSTTA recommendation V/3, key taxonomic institutions and, to the extent possible, from the roster of experts.

#### Meetings of the Coordination Mechanism

The Executive Secretary will chair the meetings of the Coordination Mechanism.

Based on the agenda and objectives of the Coordination Mechanism, regular meetings through electronic means shall be held as required to ensure the timely handling of issues. Formal meetings in person will be held, when necessary and as far as possible, back-to-back with the meetings of SBSTTA or the Conference of the Parties or other meetings of the Convention. The first meeting of the Coordination Mechanism shall take place no later than 30 August 2000.

#### Funding

The work of the Coordination Mechanism will be conducted on a voluntary basis, and where funding is required it will be through voluntary contributions.

### **18. Mechanisms for implementation:**

#### **18.1 Financial resources and mechanism (Article 20 and 21);**

##### **[Further guidance to the financial mechanism]**

*SBSTTA, the Panel of Experts on Access and Benefit-sharing and the Working Group on Article 8(j) and Related Provisions have recommended that the COP consider further guidance on the following items of the agenda: (biodiversity of dry and sub-humid lands, the ecosystem approach, Article 8(j), agricultural biodiversity, national reports, capacity-building for access to genetic resources and marine and coastal). Elements of a draft decision based on these recommendations have not been included elsewhere on the understanding that they would be considered under this item of agenda collectively, which has been the practise for previous meetings of the COP and has been recommended by ISOC in its review of the operations of the Convention as being advisable for future meetings of the COP.*

*Furthermore, as a result of the first review of the effectiveness of the financial mechanism the COP has requested the Executive Secretary to advise Parties on the relationship of these recommendations to previous guidance and any possible effects that draft guidance may have on the implementation of previous guidance. As a result, the Executive Secretary prepared document UNEP/CBD/COP/5/13/Add.2. Accordingly, when considering these recommendations the Conference of the Parties is requested to refer to this document.*

*Nevertheless, for those areas covered by existing guidance, the Conference of the Parties may wish to consider requesting the financial mechanism to take account of its decision adopted at this meeting. The following draft element is provided y way of example.*

#### The Conference of the Parties

Calls upon the financial mechanism revise its operations in light of the decisions of the Conference, including the new and revised Programmes of Work on the biodiversity of dry and sub-humid lands, agricultural biodiversity, marine and coastal biodiversity, as well as decisions relating to national reports, capacity-building for access to genetic resources, the ecosystem approach and Article 8(j) and related provisions.

**[Second review of the financial mechanism]**

*Based on the experience of the first review of the effectiveness of the financial mechanism and pursuant to decision IV/11 of the Conference of the Parties, the Executive Secretary has proposed the following elements for the second review of the financial mechanism in document UNEP/CBD/COP/5/13.*

The Conference of the Parties,

1. Decides to adopt the attached annex, containing the objectives and criteria for the second review of the effectiveness of the financial mechanism to be conducted in time for the sixth meeting of the Conference of the Parties;
2. Decides also that this second review should be conducted under the authority of the Conference of the Parties;
3. Decides further that, based on the results of the review, the Conference of the Parties shall take appropriate action to improve the effectiveness of the mechanism if necessary.

Annex

TERMS OF REFERENCE FOR THE SECOND REVIEW OF THE  
EFFECTIVENESS OF THE FINANCIAL MECHANISM

A. Objectives

1. In accordance with Article 21, paragraph 3, the Conference of the Parties will review the effectiveness of the mechanism, including the criteria and guidelines referred to in Article 21, paragraph 2, with a view to taking appropriate action to improve the effectiveness of the mechanism if necessary. For this purpose, effectiveness will include:
  - (a) The effectiveness of the financial mechanism in providing financial resources
  - (b) The conformity of the activities of the Global Environment Facility (GEF), as the institutional structure operating the financial mechanism, with the guidance of the Conference of the Parties; and
  - (c) The effectiveness of the GEF-funded activities on the implementation of the Convention.

B. Methodology

2. The review will cover the activities of the financial mechanism for the period from November 1996 to June 2000.
3. The review shall draw upon, inter alia, the following sources of information:
  - (a) Information provided by the Parties on their experiences gained through requesting funding from, and implementing activities funded by, the financial mechanism;
  - (b) Reports prepared by the Global Environment Facility, including its reports to the Conference of the Parties, programme status reports, annual project implementation reviews, reports of the GEF Monitoring and Evaluation Programme, operational reports on GEF programmes, and the GEF pipeline report;
  - (c) Information provided by other relevant stakeholders in GEF-financed biodiversity activities.

### C. Criteria

4. The effectiveness of the financial mechanism shall be assessed taking into account, inter alia:

- (a) The steps and actions taken by the financial mechanism in response to the following actions requested by the Conference of the Parties at its fourth meeting to improve the effectiveness of the financial mechanism, as set out in the annex to its decision IV/11:
- (i) Further streamlining its project cycle with a view to making project preparation simpler, more transparent and more country-driven;
  - (ii) Further simplifying and expediting procedures for approval and implementation, including disbursement, for GEF-funded projects;
  - (iii) Developing policies and procedures that fully comply with the guidance from the Conference of the Parties in a straightforward and timely manner;
  - (iv) Increasing support to priority actions identified in national plans and strategies of developing countries;
  - (v) Applying in a more flexible, pragmatic and transparent manner the incremental cost principle;
  - (vi) Promoting genuine country ownership through greater involvement of participant countries in GEF-funded activities;
  - (vii) 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;
  - (viii) Promoting the catalytic role of GEF in mobilizing funding from other sources for GEF-funded activities;
  - (ix) Including in its monitoring and evaluation activities the assessment of the compliance under its operational programmes with the policy, strategy, programme priorities and eligibility criteria established by the Conference of the Parties;
  - (x) 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 GEF; and
  - (xi) Undertaking efforts to improve the efficiency, effectiveness and transparency of the process of cooperation and coordination between the implementing agencies with a view to improving the processing and delivery systems of GEF, and to avoid duplication and parallel processes; and
- (b) Any other significant issue raised by the Parties in their response to the questionnaire.

### D. Procedures

5. Under the authority and with the support of the Conference of the Parties, the Secretariat shall prepare background documentation for review by the Conference of the Parties at its sixth meeting.

6. The Parties and stakeholders, including relevant organizations, are invited to communicate to the Secretariat [, by 30 June 2001,] their detailed views on the effectiveness of the financial mechanism on the basis of experience during the period under review.

7. The communications referred to above shall be structured along the lines of a questionnaire provided by the Secretariat using the criteria adopted in the present terms of reference, to be sent to the Parties as soon as practicable after the fifth meeting of the Conference of the Parties.

8. The Secretariat shall prepare a compilation and synthesis of the information received to assist the Conference of the Parties in its review of the effectiveness of the financial mechanism at its sixth meeting. The compilation shall be submitted to the Bureau for review and comments prior to its circulation to Parties.

9. The draft compilation/synthesis will also be made available to GEF (the GEF secretariat and implementing agencies) for its review and comments. Such comments shall be included in the compilation/synthesis and identified by source.

10. The Secretariat shall submit the document to Parties at least three months prior to the sixth meeting of the Conference of the Parties.

### **Additional financial resources**

*Pursuant to decision IV/12 the Executive Secretary has proposed a programme of work for this matter in document UNEP/CBD/COP/5/14. Based on this proposal, the Executive Secretary has invited the Conference of the Parties to consider the following elements.*

#### **The Conference of the Parties**

1. Expresses its appreciation to those bilateral and regional funding institutions, United Nations institutions, intergovernmental organizations and nongovernmental organizations and convention secretariats that provided information regarding financial resources to the Conference of the Parties at its fifth meeting;

2. Notes that a number of funding institutions have increased financial support to biodiversity projects and activities or take this into account in their regular operations;

3. Also notes the lack of comprehensive information about financial support to biological diversity;

4. Welcomes the pilot study on aid targeting the objectives of the Rio conventions being carried out by the Development Assistance Committee of the Organisation for Economic Co-operation and Development;

#### **[Monitoring of financial resources]**

5. Requests the Executive Secretary to further develop a database on biodiversity-related funding information, and make it available through the clearing-house mechanism and other means of communications, as appropriate;

6. Recognizing the difficulties in compiling biodiversity-related financial-resources information, decides to adopt the format for reporting biodiversity-related financial support contained in annex I below;

7. Urges developed country Parties and encourages developing country Parties, where appropriate, to establish a process to monitor financial support to biodiversity, and to provide further information, using the suggested format for reporting, on financial support to biodiversity to the Conference of the Parties at its sixth meeting;

8. Invites funding institutions to develop a reporting relationship, including the designating of focal points, with the Convention, and to provide annual biodiversity-related funding information to the Secretariat;

#### **[Collaboration among relevant institutions]**

9. Requests the Executive Secretary, in collaboration with the Global Environment Facility, the United Nations Environment Programme, the World Bank and the Development Assistance Committee of the Organisation for Economic Co-operation and Development, to convene a workshop on biodiversity finance with a view to sharing knowledge and experience among funding institutions;

10. Requests the Executive Secretary to explore further collaboration with the work on financial issues on Agenda 21 under the Commission on Sustainable Development, and to seek to contribute to the High-Level Consultation on Financing for Development of the General Assembly in 2001;

11. Requests the Executive Secretary to further develop collaboration with funding mechanisms of relevant conventions and agreements, and with relevant biodiversity-related programmes of international and regional organizations;

12. Requests the Executive Secretary to assist, as appropriate, in assisting funding institutions in the definition of their funding strategies and programmes and the promotion of capacity building;

**[Additional financial resources]**

13. Urges developed country Parties to take biodiversity into account in the funding policy of their bilateral funding institutions and that of regional and multilateral funding institutions;

14. Urges developing country Parties to incorporate biodiversity into their dialogue with funding institutions;

**[Involvement of private sector]**

15. Notes the cross-cutting nature of the involvement of the private sector, and resolves that the involvement of the private sector shall be included as appropriate on the agenda of the Conference of the Parties at its regular meetings and be integrated into the sectoral and thematic items under its programme of work;

16. Requests Parties to include in their second national reports information on the involvement of the private sector;

17. Invites the United Nations Environment Programme through its financial-sector initiatives to promote consideration of biodiversity by the financial sector;

18. Urges Parties to promote the consideration of tax exemptions in national taxation systems for biodiversity-related donations, and requests the Executive Secretary to promote biodiversity activities of charitable institutions;

19. Requests the Executive Secretary to promote studies and workshops on the following topics and to make their outcomes available through the publication of Secretariat technical papers:

- (a) The relationship between biodiversity and private financial flows, including case-studies;
- (b) Private-sector conservation initiatives and incentive measures;
- (c) Funding modalities for facilitating technology transfer;
- (d) The role of the private sector in the sustainable use of biological resources, with specific attention to fisheries, forestry, agriculture and ecotourism, and benefit-sharing.

Annex

FORMAT FOR REPORTING FINANCIAL SUPPORT TO BIODIVERSITY

(1) Percentage of biodiversity funding in official development assistance and in domestic gross products [for Parties] or total lending [for funding institutions].

(2) New development of funding policies related to biological diversity, including measures to integrate biological diversity into regular operations.

(3) Special funding programmes related to biological diversity.

(4) Contributions (in United States dollars) of new and additional financial resources to the financial mechanism, including explanations of how new and additional financial resources are determined [for Parties]; provisions of co-finance to projects funded by the financial mechanism [for funding institutions].

(5) [For Parties] Contributions (in United States dollars) to biodiversity-related programmes of international and regional institutions and other entities: World Bank, UNDP, UNEP, FAO, UNESCO, UNCTAD, UNIDO, UNU, IMF, IFAD, IAEA, UPOV, OECD, African Development Bank, Asian Development Bank, IDB, EBRD, IUCN, WWF, WRI, SPREP, SADC, ITTO, IEED, SADC, IED, etc.

(6) Annual project/activity financing (in United States dollars) in thematic areas: marine and coastal, inland water, forest, mountain, arid and semi-arid, agricultural biological diversity.

(7) Annual project/activity financing (in United States dollars) on cross-cutting issues: biodiversity planning, identification and monitoring, *in situ* and *ex situ* conservation, sustainable use, access to genetic resources and benefit-sharing, incentive measures, capacity-building (research, training, public education and awareness), impact assessment, transfer of technology, biosafety, scientific and technical cooperation including clearing-house mechanism, indigenous and local communities.

(8) Annual voluntary contributions (in United States dollars) to the Convention on Biological Diversity, and contributions to international agreements of relevance, such as Ramsar, CITES, UNFCCC, UNCCD.

#### Notes

- (i) For the purpose of reporting on sections (6) and (7), biodiversity projects/activities are:
  - Those projects/activities in which biodiversity can be identified as being fundamental in the design and impact of the project/activity and in which one of the three objectives of the Convention is addressed (they may be selected by answering the question: "would the project/activity have been undertaken without the objective of biodiversity?"); and
  - Those projects/activities in which biodiversity is not one of the principal reasons for undertaking the activity, but biodiversity accounts for at least 25 percent of the project/activity budget.
- (ii) Projects/activities targeted at the root cause of biodiversity loss, i.e. poverty eradication, and projects/activities that avoids negative impacts on biodiversity conservation and sustainable use should be disclosed in section (2).
- (iii) As far as possible, a project/activity should be reported under the thematic areas of destination (i.e., section (6)).
- (iv) The cross-cutting issues of destination (i.e., section (7)) are to be used only when a project/activity is ecosystems non-allocable, unspecified or unknown.
- (v) Contributions to biodiversity-related international and regional institutions and other entities should be only reported under section (5).

### **18.2 Scientific and technical cooperation and the clearing-house mechanism (Article 18);**

*The following draft decision is based on SBSTTA recommendation V/2.*

#### The Conference of the Parties

1. Notes with appreciation the report of the independent review of the pilot phase of the clearing-house mechanism, as contained in document UNEP/CBD/SBSTTA/5/INF/1;
2. Endorses the immediate implementation of the strategic plan for the clearing-house mechanism, as contained in document UNEP/CBD/COP/5/INF/3, and takes into consideration that it would form part of an overall strategic planning of the Convention on Biological Diversity;

3. Also endorses the longer-term programme of work for the clearing-house mechanism, as contained in document UNEP/CBD/COP/5/INF/4, while recognizing that the role of the Informal Advisory Committee is limited to advising the Executive Secretary;
4. As priorities for the biennium 2001-2002, recommends Parties and Governments, subject to availability of resources and relevance, to:
- (a) Establish a national directory of scientific institutions and experts working on specific thematic areas of the Convention on Biological Diversity and make it available through the clearing-house mechanism;
  - (b) Conduct a survey to establish a national baseline of existing scientific and technical cooperation initiatives relevant to the implementation of the provisions of the Convention on Biological Diversity;
  - (c) Establish, through the national clearing-house mechanism focal points, links to non-governmental organizations and other institutions holding important relevant databases or undertaking significant work on biodiversity;
  - (d) Establish regional or subregional clearing-house mechanism focal points;
  - (e) Establish national, regional and subregional clearing-house mechanism thematic focal points;
  - (f) Further develop the clearing-house mechanism to assist developing countries in gaining access to information in the field of scientific and technical cooperation, in particular on:
    - (i) Funding opportunities;
    - (ii) Access to and transfer of technologies;
    - (iii) Research cooperation facilities;
    - (iv) Repatriation of information;
    - (v) Training opportunities; and
    - (vi) Promoting and facilitating contact with relevant institutions, organizations, and the private sector, providing such services;
  - (g) Consider information providers as primary partners to ensure that a critical mass of scientific and technical information is made available;
  - (h) Consider the general public as an important target audience of users of the clearing-house mechanism;
  - (i) Develop initiatives to make information available through the clearing-house mechanism more useful for researchers and decision makers;
  - (j) Develop, provide and share services and tools for the purposes of enhancing and facilitating the implementation of the clearing-house mechanism and further improving synergies with the biodiversity-related and Rio conventions;

(k) Undertake cost-effectiveness analyses regarding the effective implementation of the clearing-house mechanism, taking into account investments related to institutional, human, financial, technological and informational resources;

5. Requests the Executive Secretary, in consultation with the Informal Advisory Committee and other relevant bodies, to:

(a) Develop ways and means to ensure a broader understanding of the role of, and value added by, the clearing-house mechanism;

(b) Further develop non-Internet-based tools to assist Parties in their national implementation efforts;

(c) Identify and establish cooperative arrangements with international thematic focal points, which can provide relevant and appropriate thematic information, using the following criteria:

(i) Expertise on themes directly relevant to the Convention on Biological Diversity;

(ii) Experience and expertise at the international level;

(iii) Endorsement of proposed thematic focal points by at least three national focal points;

(iv) Designation of a specific theme and a defined period of time;

(v) Selection between one or more thematic focal points for each theme;

(vi) Ability to leverage infrastructure;

(vii) Provision of relevant content;

(viii) Experience with specific issues;

(ix) Ability to advance the clearing-house mechanism's objectives;

(x) Ability to advance partner's objectives;

(xi) Provision of open access to information;

(xii) Allowance for the custodianship to remain with the provider of information, as well as the provision of metadata in the public domain;

(d) Convene regional workshops to support capacity-building for clearing-house mechanism activities, training and awareness, with a focus on cooperation in biodiversity information related to the implementation and management of the clearing-house mechanism at the national, subregional, biogeographic and regional levels, as appropriate;

(e) Develop a pilot initiative for supporting the thematic issues directly linked to the work programme of the Subsidiary Body on Scientific, Technical and Technological Advice, including:

(i) Identification of national institutions and experts working on that specific theme by national focal points, including through interlinkages with the rosters of experts in the relevant fields of the Convention on Biological Diversity;

- (ii) Provision of particular information to the Subsidiary Body on Scientific, Technical and Technological Advice by national focal points;
  - (iii) Use of the clearing-house mechanism to facilitate a consultation process for relevant assessments;
  - (iv) Identification of needs for scientific and technical cooperation at the national level to ensure the implementation of pilot initiatives;
- (f) Propose options for improving the means for facilitating access to and transfer of technology by the clearing-house mechanism;
- (g) Develop a list of best practices and identify potential functions recommended for implementation by clearing-house mechanism national focal points;
- (h) Identify possible formats, protocols and standards for the improved exchange of biodiversity-related data, information and knowledge, including national reports, biodiversity assessments and Global Biodiversity Outlook reports, and convene an informal meeting on this issue;
- (i) Identify options and explore cooperative arrangements to overcome language barriers as regards the use of the clearing-house mechanism, including the development or consolidation of tools and services;
- (j) Develop a global electronic platform for scientific and technical cooperation in biodiversity on the Internet to match the demands and needs of Parties with respect to Article 18 of the Convention, as a transparent, open and publicly accessible forum;
- (k) Encourage the establishment and maintenance of mirror sites of the Secretariat's website, within the other United Nations regions, as appropriate, in order to expedite access to Internet-based information.

### **18.3 Incentive measures (Article 11);**

*The following recommendation is based on the conclusion of the further analysis of the design and implementation of incentive measures called for by the COP in decision IV/10 A and presented to this meeting in document UNEP/CBD/COP/5/15.*

#### The Conference of the Parties

1. Requests the Executive Secretary:
  - (a) To gather additional information on instruments in support of positive incentives and their performance, and to develop a matrix identifying the range of instruments available, their purpose, interaction with other policy measures and effectiveness, with a view to identifying and designing relevant instruments in support of positive measures;
  - (b) To continue gathering information on perverse incentive measures, and on ways and means to remove or mitigate their negative impacts on biological diversity, and assess how these corrective measures can be applied widely;
  - (c) To integrate actions on incentives in thematic work programmes and ensure synergy with the activities on sustainable use, noting that incentive measures are essential elements in developing effective approaches to sustainable use of biological diversity (SBSTTA recommendation V/12, paragraph 4);

(d) To promote coordinated action on incentives, including the optimal design and implementation of incentive measures instruments, and identification and control of perverse incentives, with other international biodiversity-related agreements and organizations, noting specifically that the joint work plan 2000-2001 of the Convention on Biological Diversity and the Convention on Wetlands (UNEP/CBD/SBSTTA/5/INF/12) includes consideration of incentive measures;

(e) With regard to perverse incentives, to coordinate with the World Trade Organization.

2. Urges Parties and other Governments to explore possible ways and means in which incentive measures used to implement the Kyoto Protocol under the United Nations Framework Convention on Climate Change can also contribute to the objectives of the Convention on Biological Diversity.

#### **18.4 Article 8(j) and related provisions;**

*The following draft decision is based on the recommendations of the Open-ended Ad Hoc Working Group on Article 8(j) and Related Provisions (UNEP/CBD/COP/5/5, annex I).*

The Conference of Parties,

#### **[Development of a programme of work on Article 8(j) and related provisions of the Convention on Biological Diversity]**

Recalling its decision IV/9,

Noting the need for a long-term approach to the programme of work on implementation of Article 8(j) and related provisions, within a vision to be elaborated progressively, in line with the overall objectives set out in Article 8(j) and related provisions,

Recognizing the need to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application,

Noting also that the methods of implementation of Article 8(j) and related provisions differ among regions and countries in approach and capacity,

Further noting the linguistic and cultural diversity among indigenous and local communities as well as differences in their capacities,

Further noting that there are existing international agreements, intellectual property rights, current laws and policies that may have influence on the implementation of Article 8(j) and its related provisions,

Emphasizing the fundamental importance of ensuring the full and effective participation of indigenous and local communities in the implementation of Article 8(j) and related provisions,

Recognizing the vital role that women play in the conservation and sustainable use of biodiversity, and emphasizing that greater attention should be given to strengthening this role and the participation of women of indigenous and local communities in the programme of work,

Noting, the importance of integrating with the full and effective participation of indigenous and local communities the work on Article 8(j) and related provisions into national, regional and international strategies, policies and action plans,

Noting existing declarations by indigenous and local communities to the extent they relate to the conservation and sustainable use of biodiversity, including, inter alia, the Kari Oca Declaration, the Mataatua Declaration, the Santa Cruz Declaration, the Leticia Declaration and Plan of Action, the Treaty for Life Forms Patent Free Pacific, the Ukupseni Kuna Yala Declaration, the Heart of the Peoples

Declaration on Biodiversity and Biological Ethics, the Jovel Declaration on Indigenous Communities, Indigenous Knowledge and Biodiversity, the Chiapas Declaration, other relevant declarations and statements of Indigenous Forums, as well as Convention 169 of the International Labour Organization, Agenda 21 and other relevant international conventions,

1. Endorses the programme of work as contained in the annex to this decision, which shall be subject to periodic review during its implementation;

2. Urges Parties, other Governments and relevant organizations, to promote and implement this programme of work and to integrate the tasks identified into their ongoing programmes taking into account the identified collaboration opportunities;

3. Requests Parties, other Governments and relevant organizations to take full account of existing instruments, guidelines, codes and other relevant activities in the implementation of the programme of work;

4. Recognizes the proposals for action on traditional forest-related knowledge of the Intergovernmental Panel on Forests/Intergovernmental Forum on Forests as an important part of this work programme;

5. Requests Parties, other Governments, the financial mechanism and other international, regional and national organizations to provide appropriate financial support for the implementation of the programme of work [*NOTE: ). To the extent that such actions require support from the financial mechanism and other donors the practise has been to consider them collectively under item 18 of the agenda. Furthermore, with respect to guidance to the financial mechanisms ISOC recommended that this practice become the standard procedure for future meetings of the COP*];

6. Requests the Executive Secretary to facilitate the integration of the relevant tasks of the programme of the work in the future elaboration of the thematic programmes of the Convention;

7. Decides to extend the mandate of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity to review progress in the implementation of the programme of work and to report to the Conference of the Parties;

8. Recognizes the importance of the role of women in indigenous and local communities and requests Parties, other Governments, subsidiary bodies of the Convention, the Executive Secretary and relevant organizations, including indigenous and local communities, when implementing the programme of work contained in the annex to the present decision and other relevant activities under the Convention to fully incorporate women and women's organizations in the activities;

9. Urges Parties and other Governments, international organizations and organizations representing indigenous and local communities to examine ways and means to establish guidelines at national and international levels to promote equitable sharing of benefits arising from the utilization of knowledge, innovations and practices of indigenous and local communities,

10. Urges Parties and other Governments and, as appropriate, international organizations, and organizations representing indigenous and local communities, to facilitate the full and effective participation of indigenous and local communities in the implementation of the Convention and to this end:

(a) To provide opportunities for indigenous and local communities to identify their capacity needs, with the assistance of Governments and others if they so require;

(b) Include, in proposals and plans for projects carried out in indigenous and local communities, funding requirements to build the communications capacity of indigenous and local communities to facilitate dissemination and exchange of information on traditional knowledge, innovations and practices;

(c) Provide for sufficient capacity in national institutions to respond to the needs of indigenous and local communities related to Article 8(j) and related provisions,

(d) Strengthen and build capacity for communication among indigenous and local communities, and between indigenous and local communities and Governments, at local, national, regional and international levels, including with the Secretariat of the Convention on Biological Diversity and using the clearing-house mechanism, with direct participation and responsibility of indigenous and local communities;

(e) Use other means of communication in addition to the Internet, such as newspapers, bulletins, and radio, and increasing the use of local languages;

(f) Provide case-studies on methods and approaches for the recording the knowledge, innovations and practices of indigenous and local communities and for controlling such records.

**[Application and development of legal and other appropriate forms of protection for the knowledge, innovations and practices of indigenous and local communities]**

11. Emphasizes once again the need for case-studies developed in conjunction with indigenous and local communities requested in paragraphs 10 (b) and 15 of its decision IV/9, to enable a meaningful assessment of the effectiveness of existing legal and other appropriate forms of protection for the knowledge, innovations and practises of indigenous and local communities;

12. Requests the Executive Secretary to review activities relating to the knowledge, innovations and practices of indigenous and local communities being undertaken by United Nations organizations and agencies and other relevant bodies, including indigenous, local and regional organizations and activities, with a view to identifying areas of complementarities and synergy and mechanisms for promoting coordination and mutual supportiveness of activities aiming at implementing Article 8(j) of the Convention;

13. Reaffirms the importance of making Article 8(j) and related provisions of the Convention and provisions of international agreements related to intellectual property rights mutually supportive;

14. Recognizes the importance of sui generis and other appropriate systems for the protection of traditional knowledge of indigenous and local communities and the equitable sharing of benefits arising from its use to meet the provisions of the Convention on Biological Diversity, taking into account the ongoing work on Article 8(j) and related provisions, and transmit its findings to the World Trade Organization and the World Intellectual Property Organization, as suggested in paragraph 6 (b) of recommendation 3 of the Inter-Sessional Meeting on the Operations of the Convention;

15. Invites Parties and other Governments to review or, as appropriate, develop, with the participation of indigenous and local communities, national, regional and international legislation or other measures, including sui generis, interim and other appropriate systems for the protection of the knowledge, innovations and practices of indigenous and local communities as appropriate incorporating the elements recommended by the Panel of Experts on Access and Benefit-sharing;

16. Further invites Parties and other Governments to exchange information and share experiences regarding, national legislation and other measures for the protection of the knowledge, innovations and practices of indigenous and local communities;

17. Recognizes that the maintenance of knowledge, innovations, and practices of indigenous and local communities is dependent on the maintenance of cultural identities and the material base that sustains them and invites Parties and Governments to take measures to promote the conservation and maintenance of such identities;

18. Requests Parties to support the development of national registers of traditional knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity through participatory programmes and consultations with indigenous and local communities, taking into account the principles of strengthening legislation, customary practices and traditional systems of resource management, such as the protection of traditional knowledge against unauthorized use;

19. Invites Parties to ensure the participation of indigenous and local communities in the negotiation of the conditions for the access and utilization of their knowledge, innovations and practices, including, inter alia, their prior informed consent.

**[Measures to strengthen cooperation among indigenous and local communities at the international level]**

20. Emphasizes the need for Parties to increase the participation of representatives of indigenous and local community organizations in official delegations to meetings held under the Convention on Biological Diversity and, in order to facilitate traditional approaches to networking, decision-making and consensus-building on the issues to be discussed, to allocate sufficient time and resources for indigenous and local community participants to meet together beforehand;

21. Requests that Parties, with due regard to their national legislation, strengthen ongoing international cooperation among indigenous and local communities and assist them in identifying other networking opportunities that would facilitate the implementation of the programme of work on Article 8(j), including through the organization of meetings on relevant topics, the provision of adequate financial support, communications projects (for example, radio and newsletters), and the development of collaborative and capacity-building projects addressing thematic areas and cross-cutting issues from the perspective of indigenous and local communities;

22. Emphasizes the need for arrangements controlled and determined by indigenous and local communities, to facilitate cooperation and information exchange among indigenous and local communities, for the purposes of, inter alia, helping to ensure that such communities are in a position to make informed decisions on whether or not to consent to the release of their knowledge, and, in this respect:

(a) Requests the Executive Secretary, with the expertise of the clearing-house mechanism, to cooperate closely with indigenous and local communities to explore ways in which such needs may best be addressed;

(b) Invites Parties to consider ways and means of providing the necessary resources to enable the Secretariat to undertake the above-mentioned tasks;

23. Requests the Executive Secretary to compile information on existing initiatives undertaken or commenced by indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity with a view to:

(a) Better articulating and understanding barriers and support-mechanisms for ongoing cooperation among indigenous and local communities;

(b) Increasing the respect and worth of indigenous and local community initiatives; and

- (c) Fostering trust between such communities and others;

24. Requests Parties to strengthen the capacity of indigenous and local communities to promote their full and effective participation in the development and implementation of national biodiversity strategies and action plans and other activities carried out under the Convention;

25. Further requests Parties, international financial institutions and the Global Environment Facility to explore ways of providing necessary funding for these activities.

### Annex

## PROGRAMME OF WORK ON THE IMPLEMENTATION OF ARTICLE 8(j) AND RELATED PROVISIONS

### Objectives

The aim of this programme of work is to promote in the framework of the Convention a just implementation of Article 8(j) and related provisions, at local, national, regional and international levels and to ensure the full and effective participation of indigenous and local communities at all stages and levels of its implementation.

### I. GENERAL PRINCIPLES

1. Full and effective participation of indigenous and local communities in all stages of the identification and implementation of the elements of the programme of work.
2. Full and effective participation of women of indigenous and local communities in all activities of the programme of work.
3. Traditional knowledge should be valued, given the same respect and considered as useful and necessary as other forms of knowledge.
4. A holistic approach consistent with the spiritual and cultural values and customary practices of the indigenous and local communities and their rights to have control over their traditional knowledge, innovations and practices.
5. The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use of biological diversity in an equitable way.

### II. TASKS OF THE FIRST PHASE OF THE PROGRAMME OF WORK

#### Element 1. Participatory mechanisms for indigenous and local communities

Task 1. Enhance and strengthen, with the approval and participation of indigenous and local communities, the capacity of those to control and be effectively involved in the decision-making related to the use of their knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity, subject to their prior informed consent.

Task 2. Develop mechanisms, guidelines, legislation and other appropriate initiatives to foster and promote the effective participation of indigenous and local communities in decision-making, policy planning and development and implementation of the conservation and sustainable use of biological resources at international, regional, subregional, national and local levels, including access and benefit-sharing and the designation and management of protected areas, taking into account the ecosystem approach.

Task 3. On the request of the Executive Secretary, Parties and other Governments, with the full participation of indigenous and local communities, would establish a roster of experts based on the methodologies used for that purpose by the Conference of Parties, so that the experts support the implementation of this programme of work.

Task 4. Develop mechanisms for promoting the full and effective participation of women of indigenous and local communities in all elements of the programme of work, taking into account the need to:

- (a) Build on the basis of their knowledge,
- (b) Strengthen their access to biological diversity;
- (c) Strengthen their capacity on matters pertaining to the conservation, maintenance and protection of their biological diversity;
- (d) Promote the exchange of experiences and knowledge;
- (e) Document and preserve their knowledge and biological diversity.

Element 2: Status and trends in relation to Article 8(j) and related provisions.

Task 5. The Executive Secretary to prepare, for the next meeting of the Ad Hoc Working Group, an outline of a composite report on the status and trends regarding the knowledge, innovations and practices of indigenous and local communities, and a plan and a timetable for its preparation, based, *inter alia*, on advice submitted by Parties, other Governments, indigenous and local communities and other relevant organizations regarding sources and availability of information on these matters. Parties, other Governments and indigenous and local communities and other relevant organizations to submit the information and advice to address the requirements of this task and to Parties include in their national reports the current state of implementation of Article 8(j).

Element 3: Traditional cultural practices for conservation and sustainable use

Task 6. The Ad Hoc Working Group to develop guidelines for the respect, preservation and maintenance of traditional knowledge, innovations and practices and their wider application in accordance with Article 8(j).

Element 4. Equitable sharing of benefits

Task 7. The Working Group develop guidelines for the development of mechanisms, legislation or other appropriate initiatives to ensure: (i) that indigenous and local communities attain a fair and equitable share of benefits arising from the use and application of their knowledge, innovations and practices; (ii) that private and public institutions interested in using such knowledge, practices and innovations obtain the prior informed consent of the indigenous and local communities; (iii) advance the identification of the obligations of countries of origin and Parties where such knowledge, innovations and practices and the associated genetic resources are used.

Element 5: Exchange and dissemination of information.

Task 8. Identification of a focal point within the clearing-house mechanism to liaise with indigenous and local communities.

Element 6: Monitoring elements

Task 9. The Working Group to develop, in cooperation indigenous and local communities, guidelines and recommendations for the conduct of cultural, environmental and social impact assessments regarding any development proposed to take place on sacred sites and on lands or waters occupied or used by indigenous and local communities. The guidelines and recommendations should ensure the participation of indigenous and local communities in the assessment and review.

Task 10. Develop standards and guidelines for the reporting and prevention of illicit appropriation of traditional knowledge and related genetic resources.

Element 7. Legal elements

Task 11. The Working Group assess existing national and international instruments, particularly intellectual property rights instruments, that may have implications on the protection of the knowledge, innovations and practices of indigenous and local communities, with a view to ways of possible harmonization of these instruments with the objectives of Article 8(j).

Task 12. Develop guidelines that will assist Parties and other Governments in the establishment of legal instruments to implement Article 8(j) and its related provisions (which could include sui generis systems), and definitions of key terms and concepts, at international, regional and national levels, that recognize, safeguard and fully guarantee the rights of indigenous and local communities to have control over their traditional knowledge, practices, innovations, cultural heritage and customs, in countries of origin and use, within the context of the Convention. This work shall take into account, and as far as possible be carried out in collaboration with other relevant organizations, including the World Intellectual Property Organization (WIPO).

III. TASKS OF THE SECOND PHASE OF THE PROGRAMME OF WORK

Element 3: Traditional cultural practices for conservation and sustainable use

Task 13. Develop a set of guiding principles and standards to strengthen the use of traditional knowledge and other forms of knowledge for the conservation and sustainable use of biological diversity, taking into account the role that traditional knowledge can play with respect to the ecosystem approach, in situ conservation, taxonomy, biodiversity monitoring and environmental impact assessments in all biodiversity sectors.

Task 14 Develop guidelines and proposals for the establishment of national incentive schemes for indigenous and local communities to preserve and maintain their traditional knowledge, innovations and practices and for the application of such knowledge, innovations and practices in national strategies and programmes for the conservation and sustainable use of biological diversity.

Task 15. Develop guidelines that would facilitate repatriation of information, including cultural property, in accordance with Article 17, paragraph 2, of the Convention on Biological Diversity in order to facilitate the recovery of traditional knowledge of biological diversity.

Element 5: Exchange and dissemination of information.

Task 16. Identify, compile and analyse, with the participation of indigenous and local communities, existing and customary codes of ethical conduct to guide the development of models for codes of ethical conduct for research, access to, use, exchange and management of information concerning traditional knowledge, innovations and practices for the conservation and sustainable use of biological diversity.

Element 6: Monitoring elements

Task 17. Develop, in cooperation with Governments and indigenous and local communities, methods and criteria to assist in assessing the implementation of Article 8(j) and related provisions at the international, regional, national and local levels, and reporting of such in national reports in conformity with Article 26.

#### IV. WAYS AND MEANS

The Executive Secretary to develop, in consultation with indigenous and local communities, Parties, other Governments, and relevant international organizations, a questionnaire, as a basis for the provision of information concerning: (i) existing instruments and activities relevant to the tasks of the programme of work; (ii) gaps and needs concerning the guidelines referred to in task 6 above, and (iii) priorities for the further development of the programme of work.

The Executive Secretary to solicit information from Parties, other Governments, indigenous and local communities and other relevant organizations, in preparation for consideration by tasks 7, 8, 9, 12 and 13 in a second phase of the work programme.

The Executive Secretary to consult with and invite relevant international organizations to contribute to the implementation of this programme of work, also with a view to avoiding duplication and to encouraging synergies.

Parties, other Governments, the financial mechanism and other international, regional and national organizations to provide appropriate financial support for the implementation of the programme of work.

#### **18.5 Education and public awareness (Article 13);**

##### The Conference of the Parties,

1. Takes note of the information provided by the Executive Secretary, and invites UNESCO to launch the process envisaged in document UNEP/CBD/COP/5/INF/5, and requests the Executive Secretary to report on progress made in its implementation to the Conference of the Parties at its sixth meeting;

2. Endorses the recommendation of the Inter-Sessional Meeting on the Operations of the Convention and requests the Executive Secretary to designate a theme each year for the International Day for Biological Diversity; and

3. Endorses paragraph 7 of recommendation IV/1 of the Subsidiary Body on Scientific, Technical and Technological Advice that education and public awareness be included in the discussions on the work programmes on thematic issues.

#### **18.6 Impact assessment, liability and redress (Article 14);**

##### **[Impact assessment]**

*SBSTTA at its fourth meeting in recommendation IV/6 on "incorporation of biological diversity considerations into environmental impact assessment" recommended that the Conference of the Parties consider the following elements.*

##### The Conference of the Parties

1. Invites Parties, Governments and other relevant organizations:

(a) To implement Article 14 of the Convention on Biological Diversity in connection with other components of the Convention and to integrate environmental impact assessment into the work programme on thematic areas, such as inland waters, marine and coastal, forest, agricultural biological diversity, dryland ecosystems, and on alien species and tourism;

(b) To address loss of biological diversity, and the interrelated socio-economic, cultural and human health aspects relevant to biological diversity in carrying out environmental impact assessments;

(c) To consider biological diversity concerns in the development of new legislative and regulatory frameworks from the early stages of the drafting process;

(d) To ensure the involvement of interested and affected stakeholders in a participatory approach to all stages of the assessment process, including governmental bodies, the private sector, research and scientific institutions, indigenous and local communities and non-governmental organizations, including by the use of appropriate mechanisms, such as the setting up of committees, at the appropriate level, to this end;

(e) To organize experts meetings, workshops, seminars, as well as training, educational and public-awareness programmes and exchange programmes, in order to promote the development of local expertise in methodologies, techniques and procedures;

2. Encourages Parties, Governments and relevant organizations to use strategic environmental assessment in order to assess impacts not only of individual projects, but also of the cumulative and global effects, incorporating biological diversity considerations at the decision-making/environmental planning level, to include the development of alternatives, mitigation measures and consideration of the elaboration of compensation measures in environmental impact assessment;

3. Requests Parties to include in their national reports practices, systems, mechanisms and experiences on the subject;

4. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to further develop guidelines on the incorporation of biodiversity-related issues into legislation and/or processes on environmental impact assessment, in collaboration with the scientific community, the private sector, indigenous and local communities, non-governmental organizations and relevant organizations at the international, regional, subregional and national level, such as the Scientific and Technical Review Panel of the Convention on Wetlands, the scientific body of the Convention on Migratory Species, DIVERSITAS, IUCN and the International Association for Impact Assessment, the United Nations Environment Programme and the Parties, and further elaborate the application of the precautionary approach and the ecosystem approach, with a view to completion by the sixth meeting of the Conference of the Parties;

5. Requests the Executive Secretary also to make accessible and increase the call for case-studies, including negative impacts and, in particular, impact assessments taking the ecosystem approach into account, to compile and evaluate existing guidelines, procedures and provisions for environmental impact assessment, and make this information available, together with information on existing guidelines on incorporating biological diversity considerations into environmental impact assessment through, inter alia, the clearing-house mechanism in order to facilitate sharing of information and exchange of experiences at regional, national and local level.

### **[Liability and Redress]**

*With respect to liability and redress and paragraph 2 of Article 14 the Executive Secretary in document UNEP/CBD/COP/5/16 recommends that the Conference of the Parties consider the following draft decision.*

### The Conference of the Parties

Decides to consider at its seventh meeting a process for reviewing paragraph 2 of Article 14 with a view to taking a decision on the paragraph at its eighth meeting and requests the Executive Secretary to preparing a proposal to this end in time for its seventh meeting.

#### **18.7 National reporting (Article 26).**

*In its decision IV/14, the Conference of the Parties requested SBSTTA to provide advice on the intervals and forms of future national reports at its next meeting. As a result SBSTTA adopted recommendation V/13. By this recommendation SBSTTA requested the Executive Secretary, for the consideration of the Conference of the Parties at its fifth meeting, to: revise the matrix contained in annex I to his note on the establishment of guidelines for future national reports (document UNEP/CBD/SBSTTA/5/14), taking into account the views expressed at the fifth meeting of SBSTTA; and propose a format for thematic reports by Parties on items for in-depth consideration at meetings of the Conference of the Parties, in accordance with its programme of work. This information is contained in document UNEP/CBD/COIP/5/13/Add.2. The following draft decision is based on endorse the recommendation of SBSTTA, as amended by document UNEP/CBD/COP/5/13/Add.2. In paragraph 6 of recommendation v/13 SBSTTA advised the COP to consider the need for arrangements for making financial resources available to eligible Parties to assist in the preparations of their national reports. This recommendation has not been included below as it has been raised pursuant to item 18.1 of the agenda.*

### The Conference of the Parties

1. Takes note of recommendation V/13 of the Subsidiary Body for Scientific, Technical and Technological Advice on guidelines for national reports,
2. Endorses the format contained in Annex I of document UNEP/CBD/COP/5/13/Add.2 as the format for future national reports to be submitted by Parties in accordance with Article 26 of the Convention;
3. Requests Parties to make use of this format when preparing future national reports;
4. Requests Parties to submit their next national report:
  - (a) By 15 May 2001;
  - (b) In a working language of the Conference of the Parties;
  - (c) In both hard copy and electronic format;

and thereafter for consideration at alternate ordinary meetings of the Conference of the Parties, and include them in their clearing-house mechanism national focal point where feasible;
5. Recommends that Parties prepare their national reports through a consultative process involving all relevant stakeholders, as appropriate, or by drawing upon information developed through other consultative processes;
6. Also invites Parties to prepare detailed thematic reports on one or more of the items for in-depth consideration at its ordinary meetings;
7. Accordingly, invites Parties to submit to the Executive Secretary, reports on forest ecosystems, alien species and benefit-sharing for consideration at its sixth meeting:

(a) In accordance with the formats contained, respectively, in Annexes II, III and IV of document UNEP/CBD/COP/5/13/Add.2;

(b) By, respectively, 15 May 2001, 30 September 2000, and 30 December 2000;

(c) In a working language of the Conference of the Parties;

(d) In both hard copy and electronic format;

8. Requests the Executive Secretary to:

(a) Prepare reports based on information contained in national reports for consideration by the Conference of the Parties at its meetings, and make them available through the clearing-house mechanism;

(b) Keep the format of national reports under review, and provide further advice to the Conference of Parties on its revision;

(c) Proceed with the further development of the proposals for streamlining national reporting contained in section 5.2 of the "Feasibility study for a harmonized information management infrastructure for biodiversity-related treaties", in collaboration with the secretariats of the other biodiversity-related conventions and report on progress to the Conference of the Parties at its sixth meeting;

9. Invites organizations, such as the United Nations Development Programme and the United Nations Environment Programme, undertaking regional or global programmes providing support to Parties in biodiversity planning, including capacity development, to provide the Executive Secretary with information on programme activities and lessons learned;

## **19. Operations of the Convention.**

*The Inter-Sessional Meeting on the Operations of the Convention recommended that the Conference of the Parties at its fifth meeting consider the following elements of a draft decision with a view to their adoption:*

### The Conference of the Parties

#### **[A. Conference of the Parties]**

1. Decides to amend rule 4 of its rules of procedure by replacing paragraph 1 with the following paragraph:

“1. Ordinary meetings of the Conference of the Parties shall be held every [two] year[s]. The Conference of the Parties shall from time to time review the periodicity of its ordinary meetings in the light of the progress achieved in the implementation of the Convention.”

[2. Decides that meetings of the Subsidiary Body on Scientific Technical and Technological Advice should take place every year;]

3. Decides that its provisional agenda should include the following standing items:

- (a) Organizational matters;
- (b) Reports from subsidiary bodies, the financial mechanism and the Executive Secretary;
- (c) Review of the implementation of the programme of work;
- (d) Priority issues for review and guidance; and
- (e) Other matters;

4. Decides that, to the extent possible, its decisions should identify expected outcomes, activities to achieve those outcomes, those to whom the decisions are directed and timetables for action and follow-up;

5. Also decides to review its previous decisions periodically in order to assess their status of implementation;

6. Further decides to revise its procedures for decision-making regarding administrative and financial matters with a view to ensuring transparency, participation and full consideration of other decisions that are being considered by the Conference of the Parties;

7. Decides that guidance to the financial mechanism should be incorporated into a single decision, including the identification of priority issues which will provide support for cross-cutting issues and capacity-building, especially for developing countries, in a manner that is transparent and allows participation and full consideration of other decisions that are being considered by the Conference of the Parties;

8. Requests the Executive Secretary to limit the number of pre-session documents for any of its meetings, to keep them as short as feasible, if possible less than 15 pages and to include an executive summary;

9. Decides to consider whether there is a need to review the institutional linkages of the Secretariat;

#### **[B. Strategic Plan for the Convention]**

10. Requests the Executive Secretary, under the guidance of the Bureau of the Conference of the Parties and, as appropriate, the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice, to develop options for a strategic plan, based on the programme of work contained in decision IV/16, for consideration and adoption at the sixth meeting of the Conference of the Parties. For this purpose, it:

- (a) Invites Parties to make submissions to guide the Executive Secretary in this task;
- (b) Requests the Subsidiary Body on Scientific, Technical and Technological Advice at its sixth meeting to develop the elements of the strategic plan regarding scientific, technical and technological matters as mentioned in recommendation IV/1 of the Subsidiary Body; \*

#### **[C. Improvement in the operations of the Subsidiary Body on Scientific, Technical and Technological Advice]**

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\* Note. The procedure is to be considered and determined at the fifth meeting of the Conference of the Parties, including the possibility of making use of an open-ended inter-sessional mechanism or other option as mentioned in paragraphs 25 and 26 of this recommendation.

11. Decides that the Chair of the Subsidiary Body on Scientific, Technical and Technological Advice or other members of the Bureau authorized by him or her may represent the Subsidiary Body at meetings of the scientific bodies of other conventions and relevant biological-diversity-related conventions, institutions and processes;

12. Encourages the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice to hold meetings with equivalent bodies of other relevant biological-diversity-related conventions, institutions and processes;

13. Recognizes that in certain cases it will be appropriate for the Subsidiary Body on Scientific, Technical and Technological Advice to make recommendations that include options or alternatives;

14. Decides that the Subsidiary Body on Scientific, Technical and Technological Advice may establish ad hoc technical expert groups and adopt terms of reference for them, and shall seek ways to ensure transparency in the choice of experts, and the rationalization of meetings and to give effect to this by amending paragraph 12 (c) of the modus operandi of the Subsidiary Body (decision IV/16, annex I) to read:

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

15. Confirms that the Subsidiary Body on Scientific, Technical and Technological Advice may request the Executive Secretary and utilize the clearing-house mechanism to assist in the preparation of its meetings;

16. Decides to make an assessment at its sixth meeting of the recommendations made to it by the Subsidiary Body on Scientific, Technical and Technological Advice with a view to providing guidance to the Subsidiary Body on ways to improve its inputs;

17. Decides that the guidance to the Subsidiary Body on Scientific, Technical and Technological Advice contained in specific decisions of a meeting of the Conference of the Parties should take into account the need for a coherent and realistic programme of work for the Subsidiary Body, including the identification of priority issues;

18. Decides, in line with paragraph 21 of its decision IV/16 and recommendations IV/1 B and V/14 of the Subsidiary Body on Scientific, Technical and Technological Advice, to undertake sound scientific assessments based on the use of ad hoc technical expert groups, rosters of experts, extensive in-depth peer-reviews and the clearing-house mechanism under the guidance of the Subsidiary Body on Scientific, Technical and Technological Advice, in order to mobilize national and international scientific, technical and technological expertise for in-depth assessments of the state of knowledge on issues critical for the implementation of the Convention and calls on the Subsidiary Body on Scientific, Technical and Technological Advice to propose a mechanism for undertaking such assessments, including the preparation of the Global Biodiversity Outlook report, as provided for in decision II/1, and to reflect properly the findings of in-depth assessments in its recommendations;

#### **[D. Miscellaneous]**

19. Decides that every effort should be made to promote the development of the clearing-house mechanism with respect to its role in the transfer of technology and know-how and in enhancing capacity-building, especially at the national level, taking into account the review of the mechanism;

[20. Recognizes that regional-level activities, including existing regional processes established for other biological-diversity-related purposes, have an important role to play in preparing for Convention meetings and enhancing implementation of the Convention and calls on Parties to actively participate in suitable regional-level activities as well as on the Executive Secretary, subject to necessary voluntary contributions, to facilitate the involvement in such regional-level activities of developing country Parties, in particular the least developed and small island developing States, and other Parties with economies in transition;]

21. Requests the Executive Secretary to enhance communication with the Parties by introducing a notification system for the Convention with respect to: inter-sessional activities, documents received, selection of experts for technical panels, peer-review processes initiated by the Executive Secretary, liaison groups and other expert bodies, and to make such information available through the clearing-house mechanism save to the extent that an expert objects to the release of information concerning him or her;

22. Decides to improve the functioning of the existing operational procedures for the conduct of meetings under the Convention to allow small delegations to participate more effectively, including in relation to the scheduling of agenda items and dealing with timetable changes;

23. Calls on the Executive Secretary to use national reports, as appropriate, to gather focused information as part of the preparatory process for issues in the work programme, and decides to reflect this approach in its decisions on national reports arising from work agreed to in decision IV/14;

24. Requests the Executive Secretary to designate a theme each year for the International Day for Biological Diversity;

#### **[E. Implementation]**

25. Decides that it is necessary to enhance the review and facilitation of implementation of the Convention;

[26. Decides to review the implementation of the Convention within its existing institutions and procedures [which could include limitation of and clearer guidance to ad hoc inter-sessional mechanisms such as expert panels and workshops];]

[26. Decides to change the organization of its meetings to include a Working Group on Implementation;]

[26. Decides to hold a second inter-sessional meeting on the operations and implementation of the Convention;]

[26. Decides to enhance further the functions of regional meetings in preparing for meetings under the Convention and in promoting the implementation of the Convention at the regional, subregional and national levels;]

[26. Decides that its Bureau [jointly with the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice] shall act as an inter-sessional executive body to guide the work and performance of the Convention in periods between meetings of the Conference of the Parties;]

[26. Decides to establish, pursuant to paragraph 4(g) of Article 23 of the Convention, a Subsidiary Body on Implementation, with the following terms of reference. The Subsidiary Body shall:

- (a) Assist the Conference of the Parties in the assessment and review of the effective implementation of the Convention and shall report regularly to the Conference of the Parties on all aspects of its work;
- (b) Be open to participation by all Parties;
- (c) Under the guidance of the Conference of the Parties, have authority to:
  - (i) Consider the information communicated in accordance with Article 26 of the Convention (National reports) for the purpose of assessing the overall effectiveness of the measures taken by Parties to meet the objectives of the Convention;
  - (ii) Elaborate and review the [programme of work] [strategic plan] of the Convention;
  - (iii) Review the Memorandum of Understanding between the Conference of the Parties and the Council of the Global Environment Facility as approved by decision III/8 of the Conference of the Parties and, in particular, the guidance given to the financial mechanism;
  - (iv) Consider ways in which to support implementation of the Convention by developing country Parties, in particular the least developed and small island developing States, and other Parties with economies in transition;
  - (v) Identify the most appropriate modalities for the transfer of appropriate technologies and know-how in accordance with the provisions of the Convention;
  - (vi) Assist the Conference of the Parties as appropriate in the preparation and implementation of its decisions; and
  - (vii) Consider administrative and financial matters;]

[26. Decides to establish a mechanism for voluntary review of national programmes and needs relating to implementation of the Convention.]

**[Strategic Plan]**

*Pursuant to recommendation IV/1 of SBSTTA and paragraph 10 of recommendation 1 of ISOC, the Executive Secretary has proposed the following elements of a draft decision on the preparation and development of a strategic plan in document UNEP/CBD/COP/5/17.*

The Conference of the Parties

1. Decides to prepare and develop a strategic plan for the Convention, with a view to considering and adopting the strategic plan at its sixth meeting;
2. Decides that the strategic plan shall be based on the longer-term programmes of work of the Conference of the Parties, and of SBSTTA, and that the plan shall provide operational guidance for the implementation of these programmes of work;
3. Decides that the strategic plan will initially cover the period between [2002-2005] [2002-2008] [2002-2010];

4. Decides that the strategic plan shall contain a set of operational goals that the Conference of the Parties has decided that it wishes to be achieved in the period covered by the strategic plan, and that these goals shall relate to the following three main areas of work:

- (a) The thematic programmes, both current and envisaged;
- (b) Cross-cutting issues; and
- (c) The provisions of the Convention;

5. Decides that these goals shall reflect levels of elaboration, progress of development, stages of implementation, state of knowledge and capacities, and degrees of co-operation, with respect to the themes, issues and provisions at hand;

6. Decides that within each of these goals, the strategic plan shall identify, as far as possible, the following operational aspects:

- (a) Planned, envisaged, and possible activities;
- (b) The expected products;
- (c) The timing of each of these activities and products;
- (d) The actors carrying out these activities, including the appropriate levels;
- (e) The institutional mechanisms and techniques used to realize/support the goals and activities, or to generate the expected products; and
- (f) Financial and human-resource requirements;

7. Requests the Executive Secretary to draw up a detailed structure for the strategic plan, based on the parameters set out above, and communicate this to the Parties no later than [1 August 2000];

8. Invites Parties to make submissions, on the basis of the parameters set out above, and the detailed structure as communicated by the Executive Secretary, and forward these to the Executive Secretary before [1 January 2001].

9. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to consider, at its sixth [and seventh] meeting[s], the scientific, technical and technological aspects of the strategic plan, on the basis of the parameters set out above, and the detailed structure as communicated by the Executive Secretary;

10. Requests the Executive Secretary to prepare a draft strategic plan, taking full account of submissions received from Parties, and the considerations of the Subsidiary Body on Scientific, Technical and Technological Advice, and under the guidance of the Bureaux of the Conference of the Parties and the Subsidiary Body on Scientific, Technical and Technological Advice;

11. Requests the Executive Secretary to communicate the draft strategic plan to the Parties, no later than [1 April 2001], with a view to [soliciting comments from the Parties, to be submitted to the Executive Secretary before 1 September 2001.][to presenting the draft to the Inter-Sessional Meeting on the Operations of the Convention];

12. Requests the Executive Secretary to take account of the comments received from Parties, and prepare a full draft strategic plan, in time for consideration and adoption by the Conference of the Parties at its sixth meeting.

**[Scientific Assessments Mechanism]**

*Pursuant to recommendation IV/1 of SBSTTA and paragraph 18 of recommendation 1 of ISOC, the Executive Secretary has proposed the following elements of a draft decision on the development of a scientific assessment mechanism under SBSTTA in document UNEP/CBD/COP/5/17.*

The Conference of the Parties.

1. Decides to establish a scientific-assessment mechanism, to be steered by a Scientific Assessments Panel on Biological Diversity under the auspices of SBSTTA;
2. Decides that the role of the Scientific Assessments Panel will be to assess available scientific, technical and technological information relevant for the understanding of the conservation and sustainable use of biological diversity, and to provide SBSTTA with assessment reports of the highest possible quality;
3. Decides that the Scientific Assessments Panel shall be composed of [30] [Party] members / [persons representing their governments], in addition to the Chair of the Subsidiary Body on Scientific, Technical and Technological Advice, who shall be the Chair of the Panel;
4. Decides that the Subsidiary Body on Scientific, Technical and Technological Advice shall elect the members of the Panel, [drawing from the rosters of experts under the Convention][on the basis of nomination by Parties], taking into account the need for balanced geographical representation;
5. Decides that elected members, shall, in principle, serve on the Panel for a duration of [2] [4] years;
6. Decides that the Scientific Assessments Panel shall be comprised of [3] working groups [a working group on [], a working group on [], and a working group on []\*];
7. Decides that each working group shall be comprised of [10] Panel members, [two] of whom shall act as Co-Chairs, and [eight] of whom shall act as Vice-Chairs;
8. Decides that the Panel shall meet in working group and plenary session [once a year][every two years], for a total period of maximum [3] consecutive days, and that the meetings shall be convened, as much as possible, [back-to-back] [in conjunction] with meetings of the Subsidiary Body on Scientific, Technical and Technological Advice;
9. Decides that working group sessions of the Panel shall have as their main goals:
  - (a) To accept draft working group reports; and/or
  - (b) To select the experts participating in the process of writing and reviewing new Working Group reports;
10. Decides that plenary sessions of the Panel shall have as their main goals:
  - (a) To produce and endorse, on the basis of the reports accepted by the respective working groups, a synthesized summary report, which shall be presented to the Subsidiary Body on Scientific, Technical and Technological Advice;
  - (b) To initiate and to define the scope and contents of new Working Group reports;

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\* Possible areas of work: [methodologies on monitoring, including indicators][the ecosystem approach][status and trends of, and threats to, biological diversity][the effects of measures].....

11. Decides to adopt the rules of procedures with respect to the nomination and election of Panel members and with respect to the production of assessment reports, as well as procedures with respect to endorsement by the Panel as a whole of a synthesized summary report, as contained in annex VI to the report of the brainstorming meeting on scientific assessment, Oslo, 17–19 November 1999 (UNEP/CBD/COP/5/INF/1).

*The fifth meeting of the SBSTTA with respect to cooperation recommended that the Conference of the Parties also consider the following elements. In this recommendation SBSTTA also requested the COP to consider follow-up action based on the outcome of the consultations of the Executive Secretary with the Interim Steering Committee of the Millennium Ecosystem Assessment. The results of these consultations will be before the meeting in document UNEP/CBD/COP/5/INF/19.*

#### The Conference of the Parties

1. Takes note of ongoing cooperation activities;
2. Invites the Executive Secretary to strengthen cooperation, particularly in the area of scientific and technical assessment of biodiversity, bearing in mind the importance of biodiversity assessments in identifying emerging issues and reviewing the programmes of work and the impact of measures taken under the Convention;
3. Takes note of the proposed Millennium Ecosystem Assessment, taking into account and making use of the Global Biodiversity Assessment;
4. Invites the Executive Secretary to strengthen the cooperation with the United Nations Framework Convention on Climate Change, including its Kyoto Protocol, on issues relevant to forest biological diversity and coral reefs;
5. Takes note of the International Biodiversity Observation Year of DIVERSITAS, to take place from 2001 to 2002, and requests the Executive Secretary to find ways and means of collaborating with this initiative and ensure complementarity with the initiative foreseen to be undertaken by the United Nations Educational, Scientific and Cultural Organization and the Secretariat of the Convention on Biological Diversity to increase scientific knowledge and public awareness of the crucial role of biodiversity for sustainable development;
6. Welcomes and endorses the second joint work plan (2000–2001) between the Convention on Biological Diversity and the Ramsar Convention on Wetlands, and commends it as a useful example of future cooperation between the Convention on Biological Diversity and other environmental conventions;
7. Notes that the second joint work plan between the Convention on Biological Diversity and the Ramsar Convention on Wetlands includes a range of cooperative actions in relation to several ecosystem themes and cross-cutting issues of the Convention on Biological Diversity, as well as proposing actions to harmonize institutional processes, and requests the Subsidiary Body on Scientific, Technical and Technological Advice and the Executive Secretary to take these actions fully into consideration in furthering the respective programmes of work for these areas.

#### **[Terms of reference for ad hoc technical expert groups]**

*In accordance with its modus operandi the fifth meeting of SBSTTA proposed the establishment of three ad hoc technical expert groups in recommendation V/14 and requested the COP to adopt this proposal. Paragraph 3 of this recommendation, by which SBSTTA requested the COP to address the budgetary matters related to the cost of participation in meetings of the groups, is addressed in the proposed budget of the Executive Secretary contained in document UNEP/CBD/COP/5/18.*

The Conference of the Parties,

1. Approves the terms of reference and the duration of work specified for the ad hoc technical expert groups on marine and coastal protected areas and mariculture, as contained in annex II of recommendation IV/14 of the Subsidiary Body on Scientific, Technical and Technological Advice;
2. Establishes the ad hoc technical expert group on forest biological diversity and approve the terms of reference as contained annex II of recommendation IV/14 of the Subsidiary Body on Scientific, Technical and Technological Advice, taking into account the outcome of the Intergovernmental Forum on Forests and other relevant international processes;
3. Encourages Parties, other Governments and relevant bodies when nominating their experts for inclusion in the roster to consider:
  - (a) Gender balance;
  - (b) Involvement of indigenous people and members of local communities;
  - (c) Range of relevant disciplines and expertise, including, inter alia, biological, legal, social and economic sciences, and traditional knowledge;

**20. Budget for the programme of work for the biennium 2001-2002.**

*Pursuant to the rules of procedure the Executive Secretary has proposed the following elements of a draft decision for the Budget for the Programme of Work for the biennium 2001-2002 in documents UNEP/CBD/COP/5/18 and UNEP/CBD/COP/5/18.Add.1. Paragraphs 14 and 15 of the draft decision come from document UNEP/CBD/COP/5/9 and are the suggestions of the Executive Secretary arising from the experience of the administration of the Convention.*

The Conference of the Parties:

1. Approves a programme budget of \$11,378,200 for the year 2001 and of \$13,602,200 for the year 2002, for the purposes listed in table 1 below.
2. Adopts the indicative scale of contribution for 2001 and 2002 contained in the annex to this decision;
3. Approves the staffing table for the programme budget contained in table 1 below and request that all staff positions be filled expeditiously;
4. Authorizes the Executive Secretary to make transfer resources among the programmes within the limits agreed to in decisions IV/17 and III/23, namely the ability to transfer between each of the main appropriation lines set out in Table 2 up to an aggregate of 15 per cent of the total programme budget, provided that a further limitation of up to a maximum of 25 per cent of each such appropriation line shall apply;
5. Authorizes the Executive Secretary to enter into commitments up to the level of the approved budget, drawing on available cash resources, including unspent balances or contributions from previous financial periods;
6. Approves a working capital reserve of 5 per cent, established in accordance with the Financial Regulations and Rules of the United Nations;
7. Authorizes the Executive Secretary to incur additional expenditures of up to \$1 million to offset part of the costs of activities arising from the preparatory process leading to the Sixth Meeting of the Conference of the Parties, drawing on available resources, including unspent balances or contributions from previous financial periods, on the understanding that additional voluntary contributions to the

Special Voluntary Trust Funds for Facilitating Participation of Developing Country Parties in the Convention Process (BZ Trust Fund) and for Additional Approved Activities (BE Trust Fund), will be needed in order to cover all activities envisaged in the preparatory process of the Sixth Meeting of the Conference of the Parties.

8. Decides that the three Trust Funds (BY, BE, BZ) for the Convention shall be extended for the period of two years, beginning 1 January 2002 and ending 31 December 2003;

9. 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 2001 and 2002, the contributions required to finance expenditures approved under paragraph 2 above, and in this regard, requests that Parties be notified of the amount of their contributions by 1 October of the year preceding the year in which their contributions are due;

10. 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;

11. 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 2001-2002 specified by the Executive Secretary and included in Table 3 below, and invites Parties to make contributions to this fund;

12. 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 2001-2002 specified by the Executive Secretary and included in table 4 below, and invites Parties to make contributions to this fund;

13. Requests the Executive Secretary to report to the Conference of the Parties at its sixth session on income and budget performance, and to propose any adjustments that might be needed in the Convention budget for the biennium 2001-2002.

14. Authorizes the Executive Secretary, in an effort to improve the efficiency of the Secretariat and to attract highly qualified staff to the Secretariat to enter into direct administrative and contractual arrangements with Parties and organizations – in response to offers of human resources and other support to the Secretariat - as may be necessary for the effective discharge of the functions of the Secretariat, while ensuring the efficient use of available competencies, resources and services;

15. Recognizes the need for ensuring the wider participation of Parties in the meetings of the Convention and, in that light, takes note of the decision of the Bureau of the Conference of the Parties authorizing the Executive Secretary to utilize savings from the BY Trust Fund to fund the participation of developing country Parties, in particular the least developed and small island developing States, and other Parties with economies in transition, in the meetings of the Convention.

Table 1  
Biennium budget of the Trust Fund for the Convention on Biological Diversity  
2001-2002  
(thousands of United States dollars)

Expenditure	2001	2002
I. <u>Programmes</u>		
Executive direction and management	642.6	668.4
Scientific technical and technological matters	1,361.2	1,422.6
Social, economic and legal matters	1,244.7	1,295.3
Implementation and outreach	1,886.9	2,016.8
Biosafety	891.6	934.2
Resource management and conference services	3,562.7	5,126.8
Sub-total (I)	9,589.7	11,464.1
II. <u>Programme support charge</u> 13%	1,246.7	1,490.3
III. <u>Fund reserve</u> 5%	541.8	647.7
Total budget (I + II + III)	11,378.2	13,602.2

Table 2. Secretariat-wide staffing requirements from the core budget

	2000	2001	2002
A. Professional category			
D-2	1	1	1
D-1	3	3	3
P-5	1	3	3
P-4	10	15	15
P-3	9	13	13
P-2	3	2	2
Total Professional category	27	37	37
B. Total General Service category	20	27	27
TOTAL (A+B)	47	64	64

Table 3  
Special Voluntary Trust Fund (BE) for Additional Voluntary Contributions  
in Support of Approved Activities for the Biennium 2001-2002  
(thousands of United States dollars)

Table 4  
Special Voluntary Trust Fund (BZ) for Facilitating Participation  
of Parties in the Convention Process for the Biennium 2001 - 2002<sup>(\*)</sup>  
(thousands of United States dollars)

<sup>\*)</sup> Developing Country Parties, in particular the least developed and small island developing States, and other Parties with economies in transition.

AnnexCONTRIBUTIONS TO THE TRUST FUND FOR THE  
CONVENTION ON BIOLOGICAL DIVERSITY FOR THE 2001 - 2002(\*)**IV. PRIORITY ISSUES FOR REVIEW AND GUIDANCE****21. Consideration of options for conservation and sustainable use of biological diversity in dryland, Mediterranean, arid, semi-arid, grassland and savannah ecosystems.**

*By recommendation IV/3 the SBSTTA recommended that the COP consider establishing a work programme for this biome. The draft decision is based on recommendation V/8 of the SBSTTA. Paragraph 4 of recommendation V/8 by which SBSTTA requested the COP to consider the need to provide the necessary financial support, in accordance with Articles 20 and 21 of the Convention on Biological Diversity, for activities required for the implementation of the programme of work, and for capacity-building is not contained in the draft decision below. . This is because at previous meetings the practice has been to consider such suggestions collectively under the item of the agenda addressing financial issues (item 18.1 of the agenda for this meeting). Furthermore, ISOC recommended that this practice be promoted in future meetings of the COP. Specific proposals with respect to a joint programme of work are currently being finalised with the Secretariat of the CCD and will be presented to the fifth meeting of the Conference of the Parties in document UNEP/CBD/COP/5/INF.15.*

The Conference of the Parties

1. Establishes a programme of work on the biological diversity of dryland, Mediterranean, arid, semi-arid, grassland, and savannah ecosystems, which may also be known as the programme on "dry and sub-humid lands", bearing in mind the close linkages between poverty and loss of biological diversity in these areas;
2. Endorses a first phase of the programme of work, contained in the annex to recommendation V/8 of the Subsidiary Body on Scientific, Technical and Technological Advice;
3. Urges Parties, countries, international and regional organizations, major groups and other relevant bodies to implement it;
4. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to review and assess periodically (initially after two years, thereafter every four years) the status and trends of the biological diversity of dry and sub-humid lands on the basis of the outputs of the activities of the programme of work, and make recommendations for the further elaboration of the programme of work, as appropriate;
5. Requests the Executive Secretary to collaborate with the Secretariat of the Convention to Combat Desertification, including through the development of a joint work programme, as well as with other relevant bodies, in the implementation and further elaboration of the programme of work;
6. Requests the Executive Secretary to establish a roster of experts on the biological diversity of dry and sub-humid lands and to explore the possibility of establishing an ad hoc technical expert group to assess the loss of biological diversity of dry and sub-humid lands;
7. Requests the Executive Secretary to make available relevant information on the biological diversity of dry and sub-humid lands through various means, including the clearing-house mechanism, including the development in the clearing-house mechanism of a database on drylands.

Annex

DRAFT PROGRAMME OF WORK ON DRY AND SUB-HUMID LANDS

I. INTRODUCTION

1. The overall aim of the programme of work is to promote the three objectives of the Convention in dry and sub-humid lands.
2. The elaboration and implementation of the programme of work should:
  - (a) Build upon existing knowledge and ongoing activities and management practices, and promote a concerted response to fill knowledge gaps while supporting best management practices through partnership among countries and institutions;
  - (b) Ensure harmony with the other relevant thematic programmes of work under the Convention on Biological Diversity, as well as the work on cross-cutting issues;
  - (c) Promote synergy and coordination, and avoid unnecessary duplication, between related conventions, particularly the Convention to Combat Desertification, and the programmes of various international organizations, while respecting the mandates and existing programmes of work of each organization and the intergovernmental authority of the respective governing bodies;
  - (d) Promote effective stakeholder participation, including the identification of priorities, in planning, in research and in monitoring and evaluating research;
  - (e) Respond to national priorities through the implementation of specific activities in a flexible and demand-driven manner;
  - (f) Support the development of national strategies and programmes and promote the integration of biological-diversity concerns in sectoral and cross-sectoral plans, programmes and policies, in furtherance of Article 6 of the Convention on Biological Diversity, in seeking harmonization and avoiding duplication when undertaking activities relevant to other related conventions, in particular the United Nations Convention to Combat Desertification.
3. The elaboration and implementation of the programme of work should aim at applying the ecosystem approach adopted under the Convention on Biological Diversity. Implementation of the programme of work will also build upon the knowledge, innovations and practices of indigenous and local communities consistent with Article 8(j) of the Convention.

II. PROPOSED PROGRAMME OF WORK

4. The proposed programme of work is divided in two parts, "Assessments" and "Targeted actions in response to identified needs", to be implemented in parallel. Knowledge gained through the assessments will help guide the responses needed, while lessons learned from activities will feed back into the assessments.

Part A: Assessments

Operational objective

5. To assemble and analyse information on the state of the biological diversity of dry and sub-humid lands and the pressures on it, to disseminate existing knowledge and best practices, and to fill knowledge gaps, in order to determine adequate activities.

## Rationale

6. Ecosystems of dry and sub-humid lands tend to be naturally highly dynamic systems. Assessment of the status and trends of the biological diversity of dry and sub-humid lands is therefore particularly challenging. A better understanding of the biological diversity of dry and sub-humid lands, their dynamics, their socio-economic value and the consequences of their loss and change is needed. This also includes the merits of short-term adaptive management practices compared with long-term management planning. This should not, however, be seen as a prerequisite for targeted actions for the conservation and sustainable use of the biological diversity of dry and sub-humid lands. Indeed, lessons learned from practices, including indigenous and local communities practices, contribute to the knowledge base.

## Activities

Activity 1. Assessment of the status and trends of the biological diversity of dry and sub-humid lands, including landraces, and the effectiveness of conservation measures.

Activity 2. Identification of specific areas within dry and sub-humid lands of particular value for biological diversity and/or under particular threat, such as, *inter alia*, endemic species and low lying wetlands, with reference to the criteria in Annex I to the Convention on Biological Diversity.

Activity 3. Further development of indicators of the biological diversity of dry and sub-humid lands and its loss, for use in the assessment of status and trends of this biological diversity.

Activity 4. Building knowledge on ecological, physical and social processes that affect the biological diversity of dry and sub-humid lands, especially ecosystem structure and functioning (e.g., grazing, droughts, floods, fires, tourism, agricultural conversion or abandonment).

Activity 5. Identification of the local and global benefits derived from the biological diversity of dry and sub-humid lands, and assessment of the socio-economic impact of its loss.

Activity 6. Identification and dissemination of best management practices, including knowledge, innovations and practices of indigenous and local communities that can be broadly applied.

## Ways and means

7. The activities of part A are to be carried out through:

(a) Consolidation of information from various ongoing sources, including those under the Convention to Combat Desertification and other international conventions, the Global Observing Systems, and other programmes. This process would draw upon ongoing work of these existing programmes, with additional catalytic activities, such as workshops, further use of the clearing-house mechanism under the Convention on Biological Diversity, and partnerships between organizations, including, where appropriate, joint activities of the secretariats of the Convention on Biological Diversity and of the Convention to Combat Desertification;

(b) Targeted research, including existing programmes of international and national research centres and research systems and other relevant international or regional programmes, with additional funding for priority work needed to overcome barriers to the conservation and sustainable use of the biological diversity of dry and sub-humid lands;

(c) Case-studies on management practices, carried out primarily by national and regional institutions, including civil-society organizations and research institutions, with support from

international organizations for catalysing the preparation of studies, mobilizing funds, disseminating results, and facilitating feedback and lessons learned to case-study providers and policy makers. New resources could be needed to promote such studies to analyse the results and to provide necessary capacity-building and human-resource development;

- (d) Dissemination of information and capacity-building required by assessment activities.

#### Part B: Targeted actions in response to identified needs

##### Operational objective

8. To promote the conservation of the biological diversity of dry and sub-humid lands, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of its genetic resources, and to combat the loss of biological diversity in dry and sub-humid lands and its socio-economic consequences.

##### Rationale

9. The activity needed to promote the conservation and sustainable use of the biological diversity of dry and sub-humid lands will depend on the state of the dry and sub-humid lands resources and the nature of the threats. Hence, a range of options needs to be considered, from sustainable use to in situ and ex situ conservation.

10. Many dry and sub-humid land resources must be managed at the level of watersheds, or at higher spatial levels, implying community or inter-community, rather than individual, management. This is often further complicated by multiple user groups (e.g., agriculturalists, pastoralists and fisherfolk) and the migratory habits of some animal species and users of biological diversity. Institutions need to be developed or strengthened to provide for biological diversity management at the appropriate scale and for conflict resolution.

11. Sustainable use of biological diversity in dry and sub-humid lands may require the development of alternative livelihoods, and the creation of markets and other incentives to enable and promote responsible use.

##### Activities

Activity 7. Promotion of specific measures for the conservation and sustainable use of the biological diversity of dry and sub-humid lands, through, inter alia:

- (a) The use and the establishment of additional protected areas and the development of further specific measures for the conservation of the biological diversity of dry and sub-humid lands, including the strengthening of measures in existing protected areas; investments in the development and promotion of sustainable livelihoods, including alternative livelihoods, and conservation measures;

- (b) The rehabilitation or restoration of the biological diversity of degraded dry and sub-humid lands;

- (c) The management of invasive alien species;

- (d) The sustainable management of dry and sub-humid land production systems;

- (e) Where necessary, the conservation in situ as well as ex situ, as a complement to the latter, of the biological diversity of dry and sub-humid lands, taking due account of better understanding of climate variability in developing effective in situ biological conservation strategies;
- (f) The economic valuation of the biological diversity of dry and sub-humid lands, as well as the development and the use of economic instruments and the promotion of the introduction of new technologies that enhance productivity of dry and sub-humid lands ecosystems;
- (g) The sustainable harvesting of plant biomass and appropriate forms of animal husbandry that take into account their natural potential and limitations as well as socio-economic factors and, on the other hand, sustainable pastoralism;
- (h) The establishment and promotion of educational and public-awareness programmes;
- (i) The facilitation and improvement of the availability, the accessibility and exchange of information on sustainable use of the biological diversity of dry and sub-humid lands;
- (j) The establishment and promotion of research and development programmes with a focus on, inter alia, building local capacity for effective conservation and sustainable use of the biological diversity of dry and sub-humid lands;
- (k) The cooperation with the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat and the Convention on the Conservation of Migratory Species of Wild Animals with regard to, inter alia, the creation of migratory-species corridors across dry and sub-humid lands during seasonal periods, as well as with the Convention on International Trade in Endangered Species of World Fauna and Flora (CITES) with regard to rare and endangered species in dry and sub-humid lands;
- (l) Cooperation with all relevant conventions, in particular with the Convention to Combat Desertification with respect to, inter alia, the sustainable use of the biological diversity of dry and sub-humid lands, the ecosystem approach, the assessment of the status and trends of this biological diversity as well as to its threats.

Activity 8. Promotion of responsible resource management, at appropriate levels, applying the ecosystem approach, through an enabling policy environment, including, inter alia:

- (a) Decentralization of management to the lowest level, as appropriate, keeping in mind the need for common resource management and with due consideration to, inter alia, involving indigenous and local communities in planning and managing projects;
- (b) Creating or strengthening appropriate institutions for land tenure and conflict resolution;
- (c) Encouraging bilateral and subregional cooperation to address transboundary issues (such as facilitating access to transboundary rangelands);
- (d) Harmonizing sectoral policies and instruments to promote the conservation and the sustainable use of biological diversity of dry and sub-humid lands, including by, inter alia, taking advantage of the existing national action programmes under the Convention to Combat Desertification frameworks at the country level, as well as, as appropriate, of other existing and relevant sectoral plans and policies.

Activity 9. Support for sustainable livelihoods through, inter alia:

- (a) Diversifying sources of income to reduce the negative pressures on the biological diversity of dry and sub-humid lands;
- (b) Promoting sustainable harvesting as well as ranching;
- (c) Exploring innovative sustainable uses of the biological diversity of dry and sub-humid lands for local income generation, and promoting their wider application;
- (d) Developing local markets for products derived from the sustainable use of biological diversity in dry and sub-humid lands, adding value to harvested produce; and
- (e) Promoting fair and equitable sharing of the benefits arising out of the utilization of the genetic resources of dry and sub-humid lands, including bioprospecting.

Ways and means

The activities of part B to be carried out through:

- (a) Capacity-building, particularly at the national and local levels, as well as investments in the development and promotion of sustainable livelihoods, including alternative livelihoods, and conservation measures, through participatory and bottom-up processes, with funding from bilateral and multilateral sources, and catalytic support from international organizations;
- (b) Establishment of an international network of designated demonstration sites to facilitate the sharing of information and experience in implementing the programme of work, as well as to demonstrate and to promote conservation and sustainable use integration on the context of dry and sub-humid lands;
- (c) Case-studies on successful management of dry and sub-humid lands that could be disseminated through, inter alia, the clearing-house mechanism;
- (d) Improved consultation, coordination and information-sharing, including, inter alia, documentation on knowledge and practices of indigenous and local communities, within countries among respective focal points and lead institutions relevant to the implementation of the Convention to Combat Desertification, the Convention on Biological Diversity and other relevant global conventions and programmes, facilitated by the secretariats of the various conventions and other international organizations;
- (e) Enhanced interaction between the work programmes of the Convention on Biological Diversity and the Convention to Combat Desertification, through, inter alia, the regional networks and action plans of the latter; and
- (f) Partnerships between all relevant stakeholders at all levels, including international organizations and programmes, as well as national and local partners, scientists and land users.

### III. REPORTING FRAMEWORK

12. It is proposed that Parties and other bodies be requested to report on the implementation of the programme of work through, inter alia:

- (a) Appropriate sections of the national reports on biological diversity prepared for the Conference of the Parties under Article 26 of the Convention on Biological Diversity; and/or

(b) Reports made in the context of the Convention to Combat Desertification and other relevant conventions, with due regard to, inter alia, promoting harmonization, avoiding duplication, and enhancing transparency;

13. The Subsidiary Body on Scientific, Technical and Technological Advice is to review such reports after two years, and make recommendation for the further elaboration of the programme of work at that time. Thereafter, it is proposed that the implementation of the programme be reviewed every four years.

## **22. Sustainable use, including tourism.**

*The following draft decision is based on SBSTTA recommendation IV/7 "development of approaches and practices for the sustainable use of biological resources, including tourism( elements 1-7) and recommendation V/12 "sustainable use of the components of biological diversity: identification of sectoral activities that could adopt biodiversity-friendly practices and technologies," (elements 8 to 13 ).*

### The Conference of the Parties

#### **[biodiversity and tourism]**

1. Endorses the assessment of the interlinkages between biological diversity and tourism, as contained in the annex the present decision, which includes:

(a) The role of tourism in the sustainable use of biological resources, including the economic importance of tourism in the interrelationship between tourism and the environment and potential benefits for the conservation and sustainable use of biological diversity;

(b) The potential impacts on biological diversity of tourism, including economic, social and environmental impacts;

2. Accepts the invitation to participate in the international work programme on sustainable tourism development under the CSD process with regard to biological diversity, in particular, with a view to contributing to international guidelines for activities related to sustainable tourism development in vulnerable terrestrial, marine and coastal ecosystems and habitats of major importance for biological diversity and protected areas, including fragile mountain ecosystems;

3. Decides to transmit the assessment of the interlinkages between tourism and biological diversity to the Commission on Sustainable Development, with the recommendation to the Commission on Sustainable Development to incorporate the assessment in the international work programme on sustainable tourism development;

4. Recommends to Parties, Governments, the tourism industry and relevant international organizations to consider this assessment as a basis for their policies, programmes and activities in the field of sustainable tourism and encourages them to pay particular attention to:

(a) The unique role of ecotourism - i.e. tourism that relies on the existence and maintenance of biological diversity and habitats - and to develop clear strategies to develop sustainable ecotourism sectors which provides viable income-generating opportunities for indigenous and local communities;

(b) The need to develop, with all the potential stakeholders, strategies and planning, based on an ecosystem approach and aiming at the correct balance between economic, social and environmental concerns, maximizing opportunities for the conservation and sustainable use of biological diversity and the equitable sharing of benefits, recognition of traditional knowledge, and minimizing risks to biological diversity;

(c) The need for long-term monitoring and assessment, including the development and use of indicators to measure impacts of tourism on biological diversity and consequently to improve strategies and plans for tourism activities;

(d) Bringing to the local economies tangible benefits, such as job creation and sharing of benefits arising from the sustainable use of biological diversity for tourism purposes. In this regard, small and medium-sized enterprises can play a major role;

(e) The need to develop sustainable tourism which is essential for the conservation and management of biological diversity and to meet the expectations of all stakeholders, while encouraging responsible behaviour on the part of tourists, of people working in tourism enterprises and of the local population;

(f) Awareness-raising, information-sharing, education and training of tourism operators and sensitization of tourists on biological diversity issues, which enhance the goal of the respect and the conservation of biological diversity and its sustainable use;

(g) The fact that in order to ensure the sustainable use of biological diversity through tourism, there is a need to implement a flexible mix of instruments, such as integrated planning, multi-stakeholder dialogue processes, zoning in land-use planning, environmental impact assessment, including strategic environmental impact assessment, standards, industry performance-recognition programmes, ecolabelling, codes of good practices, environmental management and audit systems, economic instruments, indicators and limits for the carrying capacity of the natural areas;

(h) The importance of the involvement and the need for participation of indigenous and local communities and their interface with other sectors in the development and management of tourism, as well as their monitoring and assessment, including of cultural and spiritual impacts; and

(i) The importance of the understanding of the values and knowledge of use of the biological diversity by the indigenous and local communities and their opportunities for sustainable tourism and the promotion of local tourism;

5. Endorses the work of the Subsidiary Body on Scientific, Technical and Technological Advice on tourism as an example of sustainable use of biological diversity by exchanging experiences, knowledge and best practices through the clearing-house mechanism and encourage Parties, Governments and relevant organizations to continue to submit to the Executive Secretary case-studies in this regard;

6. In order to contribute further to the international work programme on sustainable tourism development under the Commission on Sustainable Development process with regard to biological diversity, in particular, to the review of its implementation, which will be carried out in 2002, requests the Subsidiary Body on Scientific, Technical and Technological Advice, through the Executive Secretary, to transmit its findings to the Commission on Sustainable Development at its tenth session;

7. Encourages Parties, Governments, the tourism industry and relevant organizations to undertake activities that would be supportive of the preparations for both the International Year of Ecotourism and the International Year of Mountains, as well as activities of the International Coral Reef Initiative.

**[sustainable use as a cross-cutting issue]**

8. Reminds Parties to integrate, as far as possible and as appropriate, the sustainable use of biological diversity into their relevant sectoral or cross-sectoral plans, programmes, policies and national biodiversity strategies and action plans, in accordance with Articles 6(b) and 10 of the Convention, and

taking into account the decisions of the Conference of the Parties and the principles of the ecosystem approach;

9. Requests the Executive Secretary to gather, compile and disseminate through the clearing-house mechanism and other means, case-studies on best practices and lessons learned from the use of biological diversity under the thematic areas of the Convention, drawing on the experience of Parties, Governments and relevant organizations such as the Food and Agriculture Organization of the United Nations, the Commission on Sustainable Development and the Organisation for Economic Co-operation and Development, and including, in particular, the Sustainable Use Initiative of IUCN-The World Conservation Union;

10. Requests the Executive Secretary to assemble, drawing from an assessment of the case-studies in paragraph 2 above, practical principles, operational guidelines and associated instruments which would assist Parties and Governments to develop ways to achieve the sustainable use of biological diversity, within the framework of the ecosystem approach;

11. Notes the important linkages with the programmes of work on indicators (recommendation V/11) and incentive measures and that appropriate indicators and incentive measures are essential elements in developing effective approaches to the sustainable use of biological diversity;

12. Commends to the Executive Secretary the process used to develop the ecosystem approach and requests the Executive Secretary to adapt that process for the work on sustainable use, and report on its progress under paragraphs 2 and 3 above for discussion by the Subsidiary Body on Scientific, Technical and Technological Advice at its seventh meeting;

13. Invites Parties, Governments and organizations to undertake appropriate actions to assist other Parties to increase their capacity to implement the sustainable-use objective at regional, national and local levels. Appropriate actions may include:

- (a) Workshops;
- (b) Assistance to Parties in the identification of sectors where priority action is required;
- (c) Assistance to Parties in the development of appropriate action plans;
- (d) Information dissemination and appropriate technology transfer under mutually agreed terms.

### Annex

## ASSESSMENT OF THE INTERLINKAGES BETWEEN TOURISM AND BIOLOGICAL DIVERSITY

### I. THE ROLE OF TOURISM IN THE SUSTAINABLE USE OF BIOLOGICAL RESOURCES

1. The sustainable use of the components of biological diversity is one of the three objectives of the Convention on Biological Diversity. For the purposes of the Convention, "sustainable use" means "the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations" (Article 2). This definition of sustainable use is consistent with the concept of sustainable development as elaborated in the Rio Declaration on Environment and Development and Agenda 21, whereby "sustainable development" meets the needs and aspirations of the current generations without compromising the ability to meet those of future generations. Sustainable development cannot be achieved without the sustainable use of the world's biological resources. The

concept of sustainable use is grounded in Article 10 of the Convention on Biological Diversity, on sustainable use of components of biological diversity, and in Article 6, on general measures for conservation and sustainable use of biological diversity.

2. Sustainable tourism is developed and managed in a manner that is consistent with Agenda 21 and the ongoing work on this matter as promoted by the Commission on Sustainable Development. As such, sustainable tourism includes such aspects as sustainable use of resources, including biological resources, and minimizes environmental, ecological, cultural and social impacts, and maximizes benefits. For sustainable patterns of consumption and production in the tourism sector, it is essential to strengthen national policy development and enhance capacity in the areas of physical planning, impact assessment, and the use of economic and regulatory instruments, as well as in the areas of information, education and marketing. Particular attention should be paid to the degradation of biological diversity and fragile ecosystems, such as coral reefs, mountains, coastal areas and wetlands. Ecotourism is a new, growing sector of tourism, which relies on the existence and maintenance of biological diversity and habitats. While it may require less infrastructure construction and facility-building than conventional tourism, proper planning and management are important to the sustainable development of ecotourism and to prevent threats to biological diversity on which it is intrinsically dependent.

#### A. Economic importance of tourism

3. Tourism is one of the world's fastest growing industries and the major source of foreign exchange earnings for many developing countries. The receipts from international tourism grew at an average annual rate of 9 per cent for the ten-year period from 1988 to 1997, reaching \$443 billion in 1997. Tourist arrivals worldwide increased by 5 per cent per annum on average during the same period.<sup>8/</sup> According to WTO, tourism receipts accounted for a little over 8 per cent of total world exports of goods and almost 35 per cent of the total world exports of services in 1997. The breakdown of the travel account balance shows that the industrialized countries as a whole are the net importers of such services, while the developing countries as a whole have been increasing their surplus. The surplus for the latter group of countries widened steadily from \$4.6 billion in 1980 to \$65.9 billion in 1996, offsetting more than two thirds of their current account deficit in 1996. The travel surplus has widened steadily in all developing regions in the past decade. Economies in transition recorded a deficit of \$3.5 billion in 1995, which swung back to a surplus of \$1.5 billion in 1996.

4. From the production point of view, tourism contributes around 1.5 per cent of world gross national product (GNP).<sup>9/</sup> Tourism is also a major source of employment, the hotel accommodation sector alone employing around 11.3 million people worldwide.<sup>10/</sup> Furthermore, tourism based on the natural environment is a vital and growing segment of the tourism industry, accounting for \$260 billion in 1995.<sup>11/</sup> In a number of developing countries, tourism has already overtaken cash-crop agriculture or mineral extraction as their major source of national income.<sup>12/</sup>

#### B. Tourism and environment

5. The global social, economic and environmental impacts of tourism are immense and highly complex. Given that a high percentage of tourism involves visits to naturally and culturally distinguished sites, generating large amounts of revenue, there are clearly major opportunities for investing in the maintenance and sustainable use of biological resources. At the same time, efforts must be made to minimize the adverse impacts of the tourism industry on biological diversity.

<sup>8/</sup> World Tourism Organization, Tourism Highlights 1997.

<sup>9/</sup> Report of the Secretary-General on tourism and sustainable development, addendum: Tourism and economic development, Commission on Sustainable Development, seventh session, January 1999 (Advance unedited copy).

<sup>10/</sup> Ibid.

<sup>11/</sup> Jeffrey McNeely, "Tourism and Biodiversity: a natural partnership", presented at the Symposium on Tourism and Biodiversity, Utrecht, 17 April 1997.

<sup>12/</sup> Report of the Secretary-General on tourism and sustainable development, addendum: Tourism and economic development, Commission on Sustainable Development, seventh session, January 1999 (Advance unedited copy).

6. Historical observation indicates that self-regulation of the tourism industry for sustainable use of biological resources has only rarely been successful. This is due to a number of factors. First, as there are many individual operators, local environmental conditions may be viewed as a type of common property resource. It will not be in the interests of any individual operator to invest more than his or her competitors in maintaining the general environmental standards in the resort. Similarly, operators are very likely to "export" their adverse environmental impacts, such as refuse, waste water and sewage, to parts of the surrounding area unlikely to be visited by tourists. This reaches its most extreme form in so-called "enclave" tourism, where tourists may remain for their entire stay in an artificially maintained environment isolated from its surroundings.

7. Second, international tourism operates in an increasingly global market in which investors and tourists have an ever-widening choice of destinations. Indeed the search for new and novel areas and experiences is one of the major engines driving the tourism life-cycle. Moreover, much of the tourism industry is controlled by financial interests located away from tourist destinations. When environmental conditions begin to deteriorate in a given location, operators are likely to shift to alternative locations rather than to invest in improving those conditions.

8. Finally, the international tourism market is fiercely competitive, much of it operating on low profit margins. Operators are therefore often extremely reluctant to absorb any additional costs associated with improving environmental conditions, and instead will often find it economically expedient to shift their area of operation rather than face such costs.

#### C. Potential benefits of tourism for the conservation of biological diversity and the sustainable use of its components

9. Despite the potential negative impacts, and given the fact that tourism generates a large proportion of income and that a growing percentage of tourism is nature-based, tourism does present a significant potential for realizing benefits in terms of the conservation of biological diversity and the sustainable use of its components. This section addresses the potential benefits of tourism. Among the benefits are direct revenues generated by fees and taxes incurred and voluntary payments for the use of biological resources. These revenues can be used for the maintenance of natural areas and the contribution of tourism to economic development, including linkage effects to other related sectors and job-creation.

10. Revenue creation for the maintenance of natural areas. The most direct means of exploiting tourism for the sustainable use of biological resources is through the harnessing of some proportion of tourism revenues for that end. This may be achieved either through a generalized environmental tax on tourists or particular tourism activities or by charging fees for access to biological resources, the revenue from which can then be used for their maintenance. The latter procedure generally means charging entrance fees to national parks and other protected areas, but also includes fees for activities such as fishing, hunting and diving. Voluntary payment from visitors can also assist in conservation and management of places they visit. It may include donation, membership, sponsorship, merchandise and practical tasks.

11. There are several notable, and evidently expanding, specialist tourism sectors, where participants may be willing to pay such fees. There is growing interest in tourism programmes that involve tourists in biodiversity observation and monitoring to support conservation programmes. The largest single specialist sector at present is probably bird-watching, although it is not clear whether bird-watchers as a group are in fact any more willing to pay than less-specialized tourists. In marine-based wildlife tourism, scuba-diving represents an important specialist sector. The specialist sector which appears to show the highest willingness to pay is sport hunting, where very large licence fees can be charged under some circumstances. It must also be recognized that these fees and taxes can also be used as measures to

regulate the level of access to concerned sites and biological resources. In addition, the prospect of their continued revenue generation provides a direct incentive for the maintenance of the populations or ecosystems. One potential negative aspect of specialist tourism, however, can be the relatively low level of local community involvement since relatively few local people will be involved as specialist guides or park managers.

12. The contribution of tourism to economic development. Whether tourists are paying access fees or not, they have a major economic impact on the areas that they visit. Tourist expenditures, in net terms, generate income to the host communities by, for example:

(a) Funding the development of infrastructure and services. Tourism also stimulates infrastructure investment, such as construction of buildings, roads, railroads, airports, sewage systems, water-treatment facilities and other tourism-related facilities. Existing infrastructure may also be used in a manner which benefits local communities, where the tourist is using the facility in one way, while the community uses it in another. For example, a school may gain revenue from its use as a campground or conference venue. Improved and cheap transport services might also be brought to local communities by increased tourism;

(b) Providing jobs. Tourism generates job opportunities in the sector and offers various related business opportunities derived from tourism. People involved in tourism activities may become more conscious of the value of conserving their natural areas;

(c) Providing funds for development or maintenance of sustainable practices. Increasing revenue flows in a region may also allow development of more sustainable land-use practices, by allowing, for example, farmers to use improved rotations and some level of fertilizer input, rather than relying on slash-and-burn cultivation to restore soil fertility through fallow periods;

(d) Providing alternative and supplementary ways for communities to receive revenue from biological diversity. Tourism can also provide a viable economic alternative to unsustainable production or harvesting practices or other activities deleterious to the environment, particularly in marginal areas, helping to eradicate poverty;

(e) Generating incomes. In some areas, low-input and small-scale agricultural activities that result in both an attractive environment and the maintenance of high levels of biological diversity can also offer an opportunity for tourism. Sale of products (souvenirs, crafts and arts) derived from sustainably harvested natural resources may also provide significant opportunities for income-generation and employment. Tourists who have experienced a country associated with clean and green values may be encouraged to select products from that country.

13. Sustainable tourism can make positive improvements to biological diversity conservation especially when local communities are directly involved with operators. If such local communities receive income directly from a tourist enterprise, they, in turn, increase their evaluation of the resources around them. This is followed by greater protection and conservation of those resources as they are recognized as the source of income.

14. Public education and awareness. Tourism can serve as a major educational opportunity, increasing knowledge of natural ecosystems and local communities amongst a broad range of people, in particular by tour operators and guides with specialized training in biological diversity conservation, indigenous and local communities. Such education may be reciprocal. In some parts of the world, local people have become more aware of the uniqueness of their local biological resources, for example the presence of endemic species, through the advent of tourism. Better-informed tourists are more willing to pay for the access to natural sites. Tourism can also provide incentives to maintain traditional arts and crafts and opportunities to learn about different cultures. Furthermore, tourism may, under some

circumstances, encourage the maintenance or revitalization of traditional practices that are favourable to the sustainable use of biological resources and that would otherwise be in danger of being lost.

## II. POTENTIAL IMPACTS ON BIOLOGICAL DIVERSITY OF TOURISM

15. In considering the role of tourism in the sustainable use of biological resources and their diversity, it is important that the potential adverse impacts of tourism are fully considered. These are roughly divided into environmental impacts and socio-economic impacts, the latter generally being those imposed on local and indigenous communities. Although such impacts on biological resources may be less easy to quantify and analyse systematically, they may be at least as important as, if not more important than, environmental impacts in the long term. Section A below addresses the potential adverse impacts on environment, while section B contains the potential socio-economic impacts.

### A. Environmental impacts

16. Use of land and resources. Direct use of natural resources, both renewable and non-renewable, in the provision of tourist facilities is one of the most significant direct impacts of tourism in a given area. Such use may be one-off or may be recurring. The most important are: (i) the use of land for accommodation and other infrastructure provision, including road networks; and (ii) the use of building materials. Strong competition for the use of land between tourism and other sectors results in rising prices, which increase the pressures on, for example, agricultural land. The choice of site is also an important factor. Generally preferred "attractive landscape sites", such as sandy beaches, lakes and riversides, and mountain tops and slopes, are often transitional zones, normally characterized by species-rich ecosystems. As a result of the construction of buildings in these areas, they are often either destroyed or severely impaired.<sup>13/</sup> Deforestation and intensified or unsustainable use of land also cause erosion and loss of biological diversity. Due to lack of more suitable sites for construction of buildings and other infrastructure, coastal wetlands are often drained and filled. Construction of marinas in certain sites and water-based tourist activities can also impact on ecosystems and even coastal coral reefs. In addition, building materials are often extracted in an unsustainable manner from ecosystems. Excessive use of fine sand of beaches, reef limestone and wood can cause severe erosion.<sup>14/</sup> Furthermore, creation of congenial conditions for tourists may often entail various forms of environmental manipulation that may have consequences for biological resources beyond the limits of acceptable change.

17. Impacts on vegetation. Direct impact on the species composition of vegetation on the ground layer can be caused by trampling and off-road driving. Off-road driving is often carried out in ecosystems perceived as a low value, such as deserts. Deserts are fragile ecosystems which can be seriously damaged by a single passage of a motor vehicle. Plant-picking and uprooting by plant collectors and casual flower-pickers can also lead to loss of individual species. Passage of tourism vehicles, particularly in high volumes along popular routes, and associated vehicle pollution also have adverse effects on vegetation, resulting in a loss of vegetation cover. Furthermore, forest fires may be caused by the careless use of campfires. The choice of sites for construction facilities can also affect vegetation patterns and species diversity.<sup>15/</sup>

18. Impacts on wildlife. Wildlife tourism and other types of nature-oriented tourism may have a number of direct impacts on natural resources. The severity of these impacts is variable and has rarely been quantified for any specific cases. Actual or potential impacts include: (i) damage caused by tourism activities and equipment; (ii) increased risk of the spread of pathogens from humans or companion animals to wild species; (iii) increased risk of introduction of alien species; (iv) disturbance of wild

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<sup>13/</sup> Biodiversity and Tourism: Conflicts on the world's seacoasts and strategies for their solution, German Federal Agency for Nature and Conservation ed., 1997.

<sup>14/</sup> Ibid.

<sup>15/</sup> Ibid.

species, thereby disrupting normal behaviour and conceivably affecting mortality and reproductive success; (v) alterations in habitats; and (vi) unsustainable consumption of wildlife by tourists.

19. One of the direct effects on wildlife of unregulated tourism may be the depletion of local populations of certain species caused by unregulated hunting, shooting and fishing. Uneducated divers and tour operators can cause extensive damage to coral reefs through trampling and anchoring. Tourists and tourist transportation means can increase the risk of introducing alien species. In addition, the manner and frequency of human presence can cause disturbance to the behaviour of animals, in particular, noise caused by radios, motorboat engines and motor vehicles. Even without much noise, some waterfowl can be agitated by canoes and rowing boats. Construction activities related to tourism can cause enormous alteration to wildlife habitats and ecosystems. Furthermore, increased consumption of wildlife by tourists can affect local wildlife populations and local fisheries as well as the amount available for consumption by local people. Souvenir manufacturing using wildlife, in particular such endangered species as corals and turtle shells, can also seriously affect those populations.

20. Impacts on mountain environments. Tourism has for many years been focused on mountain areas, which provide opportunities for hiking, white-water rafting, fly fishing, para-gliding and winter sports, especially skiing and related activities. Pressures from these activities on biological resources and their diversity are enormous and include: erosion and pollution from the construction of hiking trails, bridges in high mountains, camp sites, chalets and hotels. There has been increasing awareness of and publicity on the negative effects of tourism on mountains. The Kathmandu Declaration on Mountain Activities was adopted as long ago as 1982 by the International Union of Alpine Associations, in order to address these pressures on the fragile mountain ecosystems and to call for improved practices. The Convention on the Protection of the Alps, signed in 1991, and its Protocol on Tourism are the first international legal instruments addressing the potential risks associated with mountain tourism. The case-study on the Annapurna Conservation Area project also points out the difficulty in managing increased tourism activities in the fragile mountain ecosystems.

21. Impacts on the marine and coastal environment. Tourism activities may have major impacts on the marine and coastal environment, the resources they host and the diversity of those resources. Most often, those impacts are due to inappropriate planning, irresponsible behaviour by tourists and operators and/or lack of education and awareness of the impacts by, for example, tourist resorts along the coastal zones. But sometimes decisions for tourism development are based only on the potential economic benefit, in spite of the known potential damage to the environment, as in the case of various coral reef resorts. Coastal erosion often affects many coastal infrastructures that have been built for tourism purposes. However, it is often those very infrastructures that have altered dune-replenishment processes (causing beach erosion), modified local currents by building harbour-like structures (causing, for example, the smothering of superficial corals), and led to eutrophication through inappropriate positioning of the resort sewage systems and the often absent treatment of the water discharged. In open waters, shipping for tourism purposes has sometimes been found to cause pollution due to intentional release, and to carry alien invasive species into new environments.

22. While the impact of tourism on coastal resources may already be a serious issue, the degradation of these resources may cause the impoverishment of their diversity, as in the case of mangrove ecosystems adjacent to tourist resorts. This may have significant ecological and economic implications for and displacement of local populations.

23. Impacts on water resources. Freshwater, in general, is already facing growing demand from agriculture, industry and households in many parts of the world. In some locations, such as in many small island developing States, additional demand from tourism, which is extremely water-intensive, is an acute problem.<sup>16/</sup> The extraction of groundwater by some tourism activities can cause desiccation, resulting in

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<sup>16/</sup> Report of the Secretary-General on sustainable tourism development in small island developing States (E/CN.17/1996/20/Add.3), submitted to the Commission on Sustainable Development at its fourth session, held in 1996,

loss of biological diversity. For the quality of water, some activities are potentially more damaging than others. For example, use of motorboats can lead to beach and shoreline erosion, dissemination of aquatic weed nuisances, chemical contamination, and turbulence and turbidity in shallow waters.<sup>17/</sup> The disposal of untreated effluents into surrounding rivers and seas can cause eutrophication. It can also introduce a large amount of pathogens into the water body, making it dangerous for swimming. Naturally nutrient-rich ecosystems, such as mangroves, can perform buffer and filtering functions to a certain extent.<sup>18/</sup>

24. Waste management. Disposal of waste produced by the tourism industry may cause major environmental problems. Such waste can generally be divided into: sewage and waste-water; chemical wastes, toxic substances and pollutants; and solid waste (garbage or rubbish). The effect of direct discharge of untreated sewage leading to eutrophication, oxygen deficit and algal blooms has already been pointed out.

25. Environmental impact of travel. Travel to and from international tourist destinations causes significant environmental impacts through pollution and production of "greenhouse" gases. A high proportion of international tourist travel is by air. Such travel is believed to be the most environmentally costly per passenger-kilometre, although the true costs are difficult to assess accurately, as are the impacts on biological resources and their diversity.

#### B. Socio-economic and cultural impacts of tourism

26. Influx of people and related social degradation. Increased tourism activities can cause an influx of people seeking employment or entrepreneurial opportunities, but who may not be able to find suitable employment. This may cause social degradation, such as local prostitution, drug abuse and so forth.<sup>19/</sup> In addition, due to the unstable nature of international tourism, communities that come to rely heavily on tourism in economic terms are vulnerable to the changes in the flow of tourist arrivals and may face sudden loss of income and jobs in times of downturn.

27. Impacts on local communities. When tourism development occurs, economic benefits are usually unequally distributed amongst members of local communities. There is evidence suggesting that those who benefit are often limited in number and that those who benefit most are often those who were at an economic advantage to begin with, particularly landowners who can afford the investment. Specialist tourism can also involve a relatively small segment of a local community, possibly removing contact of the larger community with the resources in question. In the case of foreign direct investment, much of the profit may be transferred back to the home country. Therefore, tourism can actually increase inequalities in communities, and thus relative poverty. In addition, tourism increases local demand for goods and services, including food, resulting in higher prices and potentially decreased availability for local people. Such trends are often more prevalent where there is a lack of consultation with the peoples and communities involved in tourism.

28. A more direct example of where tourism may conflict directly with the needs and aspirations of local peoples is where the latter are excluded from particular areas given over to tourism, or at least have their rights of access severely curtailed. This is most likely to occur in protected areas created to conserve wildlife. In most cases, however, the designation of such areas as protected, and the exclusion of local people from them, have preceded the development of tourism in such areas, rather than having been a product of it. On the other hand, as in the case of the Maldives, direct conflict can be avoided by isolating the tourism industry from the bulk of the indigenous population. This isolation has been possible in the

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<sup>17/</sup> Tourism, ecotourism, and protected areas, Hector Ceballos-Lascurain, IUCN, 1996.

<sup>18/</sup> Biodiversity and Tourism: Conflicts on the world's seacoasts and strategies for their solution, German Federal Agency for Nature and Conservation ed., 1997.

<sup>19/</sup> For further elaboration, see the addendum to the report of the Secretary-General on tourism and sustainable development entitled "Tourism and social development", submitted to the Commission on Sustainable Development at its seventh session, held in 1999.

Maldives because of the availability of a large number of uninhabited islands that can be developed into tourist-resort islands.<sup>20/</sup>

29. Impacts on cultural values. Tourism has a highly complex impact on cultural values. Tourism activities may lead to inter-generational conflicts through changing aspirations of younger members of communities who may have more contact with, and are more likely to be affected by, the behaviour of tourists. Furthermore, they may affect gender relationships through, for example, offering different employment opportunities to men and women. Traditional practices and events may also be influenced by the tourist preferences. This may lead to erosion of traditional practices, including cultural erosion and disruption of traditional lifestyles. Additionally, tourism development can lead to the loss of access by indigenous and local communities to their land and resources as well as sacred sites, which are integral to the maintenance of traditional knowledge systems and traditional lifestyles.

### 23. Access to genetic resources.

*ISOC Under this item, the Conference of the Parties is also invited to consider recommendations 2,3 and 4 of and the report of the Panel of Experts on Access and Benefit-sharing. The following draft decision is based on these recommendations and is taken from document UNEP/CBD/COP/5/21.*

The Conference of the Parties,

#### [Access and benefit-sharing arrangements]

1. Requests Parties to establish/designate a national focal point and one or more competent national authorities, as appropriate, to be responsible for access and benefit-sharing arrangements within its jurisdiction;
2. Requests Parties to notify the Executive Secretary of the names and addresses of its focal points and competent authorities;
3. Urges Parties to ensure that legislative, administrative and policy measures on access and benefit-sharing to be a component of their national biodiversity strategies and to ensure that such arrangements are linked to conservation and sustainable-use objectives;
4. Notes that legislative, administrative and policy measures for access and benefit-sharing need to promote flexibility, while balancing the need for sufficient regulation of access to genetic resources to promote the objectives of the Convention, and that flexibility in providing countries is related to the extent that user countries and organizations implement measures that provide incentives or establish control mechanisms in order to secure the interest of providers over their resources, and therefore urges Parties to pay particular attention to their obligations under paragraph 7 of Article 15 of the Convention;
5. Notes that legal certainty and clarity facilitates access to and use of genetic resources and contributes to mutually agreed terms in line with the aims of the Convention, and therefore urges Parties, in the absence of full and clear legislation and national strategies for access and benefit-sharing, to use voluntary measures, guidelines or government endorsement to help ensure they meet the objectives of the Convention;
6. Requests Parties in developing national legislation on access to take into account and allow for the development of a multilateral system to facilitate access and benefit-sharing for plant genetic resources for food and agriculture;

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<sup>20/</sup> Tourism and the Environment Case Studies on Goa, India, and the Maldives, Kalidas Sawkar, Ligia Noronha, Antonio Mascarenhas, O.S. Chauhan, and Simad Saeed, Economic Development Institute of the World Bank, 1998.

7. Endorses the common understandings of the Panel of Experts on Access and Benefit-sharing with respect to prior informed consent and mutually agreed terms as contained in paragraphs 156 to 165 of its report;

8. Decides that the Panel of Experts on Access and Benefit-sharing should develop guidelines with respect to prior informed consent and mutually agreed terms based on the common understandings referred to in paragraph 7 above;

9. Notes that information is a critical aspect of providing the necessary parity of bargaining power for stakeholders in access and benefit-sharing arrangements, and that, in this respect, there is a particular need for more information regarding:

- (a) User institutions;
- (b) The market for genetic resources;
- (c) Non-monetary benefits;
- (d) New and emerging mechanisms for benefit-sharing;
- (e) Incentive measures;
- (f) Clarification of definitions;
- (g) Sui generis systems; and
- (h) "Intermediaries";

10. Requests the Executive Secretary to compile the information referred to in paragraph 9 above and disseminate it through the clearing-house mechanism, relevant meetings and requests Parties and organizations to provide such information to assist the Executive Secretary;

11. Notes that further development of capacities regarding all aspects of access and benefit-sharing arrangements is required for all stakeholders, in particular, local governments, academic institutions, and indigenous and local communities, and agrees that four of the most critical capacity-building needs are:

- (a) Assessment and inventory of biological resources as well as information management;
- (b) Contract negotiation skills;
- (c) Legal drafting skills for development of access and benefit-sharing measures; and
- (d) Development of sui generis regimes for the protection of traditional knowledge associated with genetic resources;

12. Recalling its guidance to the financial mechanism, urges those Parties for which this issue is a priority to initiate projects which will address these needs and urges the financial mechanism, Parties, other relevant organizations and the private sector to support such projects *[NOTE: In accordance with previous practise on matter involving the financial mechanism the COP may wish to consider this matter pursuant to item 18.1 of the agenda for this meeting];*

13. Noting that the Panel was not able to come to any conclusions about the role of intellectual property rights on the implementation of the access and benefit-sharing arrangements and that

the Panel developed a list of specific issues that require further study (UNEP/CBD/COP/5/8, paragraphs. 127-138):

- (a) Requests Parties to submit to the Executive Secretary information on these issues by 31 December 2000;
- (b) Further requests the Executive Secretary based on these submissions and other relevant material to make available for the second inter-sessional meeting of the Panel a report on these specific issues;
- (c) Recalling ISOC recommendation 3, requests the Executive Secretary to prepare this report in consultation with the secretariat of the World Trade Organization and the World Intellectual Property Organization;
- (d) Requests the Panel to advise the Conference of the Parties on these specific issues at its sixth meeting.

**[The relationship between intellectual property rights and the relevant provisions of the TRIPs Agreement and the Convention]**

Noting ISOC recommendation 3, on the relationship between the intellectual property rights and the relevant provisions of Agreement on Trade-Related Aspects of Intellectual Property Rights and the Convention,

1. Reaffirms the importance of systems such as sui generis and others for the protection of traditional knowledge of indigenous and local communities on the equitable sharing of benefits arising from its use to meet the provisions of the Convention, taking into account the ongoing work on Article 8(j) and related provisions;
2. Invites the World Trade Organization to acknowledge relevant provisions of the Convention and to take into account the fact that the provisions of the TRIPs Agreement and the Convention on Biological Diversity are interrelated and to further explore this interrelationship;
3. Requests the Executive Secretary to transmit the present decision to the Secretariat of the World Trade Organization and the World Intellectual Property Organization, for use by appropriate bodies of these organizations and to endeavour to undertake further cooperation and consultation with these organizations.

**[Ex situ collections acquired prior to the entry into force of the Convention and not addressed by the Commission on Genetic Resources for Food and Agriculture]**

1. Decides to continue the information-gathering exercise on ex situ collections acquired prior to the entry into force of the Convention and not addressed by the Commission on Genetic Resources for Food and Agriculture initiated by decision IV/8;
2. Requests the Executive Secretary to gather available information of the type described in annex I to the present decision, as appropriate;
3. Requests the Executive Secretary to gather information from Parties and relevant organizations and forums through a questionnaire, based on annex II to the present decision;
4. Invites relevant organizations and forums already involved in consideration of these issues to provide this information to the Executive Secretary;

5. Invites Parties, Governments and other organizations to provide capacity-building and technology development and transfer for the maintenance and utilization of ex situ collections acquired before the Convention entered into force;
6. Invites the Panel of Experts on Access and Benefit-sharing in its work on developing guidelines with respect to prior informed consent and mutually agreed terms based on the common understandings identified in the report of the Panel to the extent feasible to consider their application on a voluntary basis to the ex situ collection acquired prior to the entry into force of the Convention;
7. Requests the Executive Secretary to report the result of this exercise to the Conference of the Parties at its [sixth] meeting.

### Annex I

#### ELEMENTS FOR A QUESTIONNAIRE ON EX SITU COLLECTIONS

A questionnaire to solicit the relevant information may contain the following elements:

1. Number, types and status, including legal status and institutional links, of relevant collections;
2. Approximate number of accessions acquired, prior to the entry into force of or not in accordance with the Convention on Biological Diversity (<100; >100; >1000; other);
3. Whether the following information is likely to be available: country of origin; name of depositor; date of deposit; terms of access under which the material is available (All available; Some available; None available);
4. Any relevant policies regarding collections that are not addressed by the FAO Commission on Genetic Resources for Food and Agriculture, where appropriate, in particular those addressing the issue of access to the relevant collections, including matters relating to repatriation of information and repatriation of duplicates of germplasm collections;
5. Information regarding the number of requests for information and the exchange of germplasm;
6. Details of the benefits from shared germplasm and information on costs of maintaining such collections;
7. Any other relevant information.

Annex IIQUESTIONNAIRE ON EX SITU COLLECTIONSObjective

To inform consideration of the implementation of the Convention on Biological Diversity by ex situ collections

1. Information on collections

	Number of accessions			
	Pre-Convention on Biological Diversity		Post-Convention on Biological Diversity	
	Public	Private	Public	Private
<b>PLANT GENETIC RESOURCES</b> <b>seed gene banks:</b> <b>field collections:</b> (e.g. botanic gardens and arboreta) <b>other:</b> (e.g. DNA, pollen in cold storage, tissue cultures, herbaria )				
<b>ANIMAL GENETIC RESOURCES</b> <b>Whole animal collections:</b> (e.g. zoological gardens; rare breed collections) <b>other:</b> (e.g. DNA, semen, ova in cold storage)				
<b>MICROBIAL GENETIC RESOURCES</b> <b>culture collections:</b> <b>other:</b>				

2. Information on pre-Convention on Biological Diversity collections

(Information to be differentiated between plant genetic resources, animal genetic resources and microbial genetic resources.)

<b>Is information available on:</b>	For all accessions	For most accessions	For some accessions	For few accessions	For no accessions
<b>country of origin</b>					
<b>name of depositor</b>					

<b>Is information available on:</b>	For all accessions	For most accessions	For some accessions	For few accessions	For no accessions
<b>date of deposit</b>					
<b>user institution/country</b>					

3. Conditions/restrictions on access and use

(Information to be differentiated between plant genetic resources, animal genetic resources and microbial genetic resources.)

- a. Description of the main conditions/restrictions (including those contained in national law, those set by the collections themselves and those set by depositors) on access to and use of genetic resources identified separately, if appropriate, for pre-Convention on Biological Diversity and post-Convention on Biological Diversity material.
- b. What limitations, if any (legal or practical), are there on applying the provisions of the Convention on Biological Diversity to the supply of pre-Convention on Biological Diversity materials for collections in your country?

4. Use of collections

(Information to be differentiated between plant genetic resources, animal genetic resources and microbial genetic resources.)

Information on the number of requests for genetic resources and for information differentiated by type of collection (public/private) and by the source of the request (national/foreign; public/private).

5. Additional information

(Information to be differentiated between plant genetic resources, animal genetic resources and microbial genetic resources.)

Any additional relevant information on other key characteristics of collections, for example:

- Focus on medicinal plants, certain families/genera/species, emphasis on economic importance, certain ecosystems (e.g. drylands);
- Whether the accessions are duplicated elsewhere (for conservation purposes and to determine the genetic diversity of collections world-wide).