

DECISIONS ADOPTED BY THE CONFERENCE OF THE PARTIES TO THE  
CONVENTION ON BIOLOGICAL DIVERSITY AT ITS FIFTH MEETING  
Nairobi, 15-26 May 2000

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V/1. Work plan of the Intergovernmental Committee for the Cartagena Protocol on Biosafety

The Conference of the Parties,

Welcoming the signatures of the Cartagena Protocol on Biosafety that have already taken place and reiterating the call of decision EM-I/3 to all Parties to the Convention on Biological Diversity to sign the Protocol at the earliest opportunity, and to deposit instruments of ratification, acceptance or approval, or instruments of accession, as appropriate, as soon as possible,

Reiterating also the call of decision EM-I/3 upon States that are not Parties to the Convention to ratify, accept, approve or accede to it, as appropriate, without delay, thereby enabling them also to become Parties to the Protocol,

Recalling the mandate given to the open-ended ad hoc Intergovernmental Committee for the Cartagena Protocol on Biosafety in decision EM-I/3 to undertake, with the support of the Executive Secretary, the preparations necessary for the first meeting of the Parties to the Protocol,

Reaffirming that the meeting of the Parties is the only sovereign body with regard to the implementation of the Protocol,

Emphasizing the preparatory character of the work to be undertaken by the Intergovernmental Committee in order to facilitate the work of the first meeting of the Parties to the Protocol,

Underscoring therefore that, without prejudice to the provisions of the Protocol, including time-frames, the meeting of the Parties is the only body entitled to decide on issues that are required to be addressed during its meetings, and to what extent and in which manner it wishes to use the preparatory work of the Intergovernmental Committee,

Noting that a work programme should reflect all issues that the meeting of the Parties to the Protocol might wish to address at its first meeting,

Emphasizing the necessity to complete as early as possible the preparations for the entry into force of the Protocol,

Emphasizing also the priority of launching the Biosafety Clearing-House no later than the entry into force of the Protocol, and also the need to engage in capacity-building as soon as possible,

Welcoming the decision taken by the Council of the Global Environment Facility at its fifteenth meeting with regard to supporting activities that will assist countries to prepare for the entry into force of the Protocol,

1. Endorses the work plan for the Intergovernmental Committee for the Cartagena Protocol on Biosafety as contained in the annex to the present decision;

2. Requests the Executive Secretary to invite all relevant stakeholders to contribute to the development and/or strengthening of 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. Requests also the Executive Secretary to convene, prior to the first meeting of the Intergovernmental Committee for the Cartagena Protocol on Biosafety, the meeting of technical experts on the Biosafety Clearing-House referred to in the table at the end of decision EM-I/3, and reiterates its invitation to Parties and States to make contributions for the supplementary budget for biosafety to the Special Voluntary Trust Fund (BE) for Additional Voluntary Contributions in Support of Approved Activities for the biennium 1999-2000, as presented in the table at the end of decision EM-I/3;

4. Welcomes the generous offer made by the Government of France to host the first meeting of the Intergovernmental Committee for the Cartagena Protocol on Biosafety from 11 to 15 December 2000 in Montpellier.

#### Annex

##### WORK PLAN OF THE INTERGOVERNMENTAL COMMITTEE FOR THE CARTAGENA PROTOCOL ON BIOSAFETY

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

###### 1. Decision-making (Article 10, para. 7)

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
- Means to ensure confidentiality of information
- Financial and technological resource requirements
- Other issues (such as Article 5)

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

###### Issues:

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- Identification of the needs and involvement 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 the 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 resource requirements
- Other issues (such as Article 6)

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

Issues:

- Overview of relevant international rules and standards pertaining to handling, transport, packaging and identification
- Consideration of modalities for developing standards with regard to handling, transport, packaging and identification

5. Compliance (Article 34)

Issues:

- Elements for a compliance regime
- Options for a compliance regime

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 international rules and procedures in the field of liability and redress for damage resulting from transboundary movements of living modified organisms, including, inter alia:

- Review of existing relevant instruments
- Identification of elements for liability and redress

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, Article 22)

Issue: Elaboration of guidance for the financial mechanism.

5. Rules of procedure for the meeting of the Parties

Issue: Consideration of rules of procedure.

6. Consideration of other issues necessary for effective implementation of the Protocol (e.g., Article 29, para. 4)

7. Elaboration of a draft provisional agenda for the first meeting of the Parties

Items for continued consideration from the first meeting of the ICCP

8. Decision-making (Article 10, para. 7)

9. Information-sharing (Article 20)

10. Capacity-building (Article 22, Article 28, para. 28)

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

Issue: Modalities for a process for discussion on Article 18, paragraph 2 (a) by the first meeting of the Parties.

12. Compliance (Article 34)

V/2. Progress report on the implementation of the programme of work on the biological diversity of inland water ecosystems (implementation of decision IV/4)

The Conference of the Parties,

Recognizing the need for continued cooperation between the Convention on Biological Diversity and other conventions and bodies dealing with different aspects of inland water biological diversity,

1. Takes notes of the various ways and means to implement the programme of work and obstacles in implementing some aspects of the work plan of the Subsidiary Body on Scientific, Technical and Technological Advice, as contained in the note by the Executive Secretary on the subject prepared for the fifth meeting of the Subsidiary Body (UNEP/CBD/SBSTTA/5/6), and requests the Executive Secretary to report to it on these matters before the seventh meeting of the Conference of Parties as part of the review of the programme of work on the biological diversity of inland water ecosystems by the Subsidiary Body at its eighth meeting;

2. Endorses the proposed joint work plan for the period 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), which includes, inter alia, a River Basin Initiative, encourages Parties, other Governments and relevant bodies to support and participate in the Initiative, and stresses that Parties to the Convention on Biological Diversity that are not Parties to the Ramsar Convention shall not be disadvantaged in the workings and implementation of the joint work plan;

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

4. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to consider the recommendations contained in the forthcoming report of the World Commission on Dams, to be published in November 2000, and, as appropriate, to recommend to the Conference of the Parties at its sixth meeting the introduction of suitable elements into the programme of work on the biological diversity of inland water ecosystems;

5. Further requests the Subsidiary Body on Scientific, Technical and Technological Advice to include in its review before the seventh meeting of the Conference of Parties advice on the further elaboration and refinement of the programme of work on the biological diversity of inland water ecosystems, having due regard to the issues relating, inter alia, to water supply, land use and tenure, pollution, alien invasive species, the effects of El Niño, and environmental impact assessment;

6. Requests the Executive Secretary to compile systematically information on the implementation of the programme of work on the biological diversity of inland water ecosystems, including the report of the World Commission on Dams, for dissemination through the clearing-house mechanism, and to report on his efforts as part of the review of that programme of work that the Subsidiary Body on Scientific, Technical and Technological Advice will carry out before the seventh meeting of the Conference of Parties;

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

8. Urges the implementation of capacity-building measures for developing and implementing national and sectoral plans for the conservation and sustainable use of inland water ecosystems, including comprehensive assessments of the biological diversity of inland water ecosystems, and capacity-building programmes for monitoring the implementation of the programme of work and the trends in inland water biological diversity, and for information-gathering and dissemination among the riparian communities.



V/3. Progress report on the implementation of the programme of work on marine and coastal biological diversity (implementation of decision IV/5)

The Conference of the Parties,

Recalling the need to implement the programme of work on marine and coastal biological diversity in a holistic manner, taking into account river basin issues, the effects of land-based activities (including pollution) and tourism plans,

Noting the relevance for the future implementation of the programme of work of the joint work plan 2000-2001 of the Convention on Biological Diversity and Ramsar Convention on Wetlands,

Stressing the importance of regional approaches to the implementation of the programme of work and therefore of cooperation with regional bodies,

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, as set out in the note by the Executive Secretary on the subject prepared for the fifth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/5/7, annex I), requests the Executive Secretary to report to future meetings of the Subsidiary Body on Scientific, Technical and Technological Advice on the application of these tools, encourages the Secretariat and the Subsidiary Body to complete, as soon as possible, the implementation of decision IV/5 on the programme of work on marine and coastal biodiversity as adopted by the Conference of Parties at its fourth meeting, and notes that the work element on coral reefs was enabled at the fifth meeting of the Conference of the Parties, and will have a minimum three year time schedule;

I. CORAL REEFS

2. Endorses the results of the Expert Consultation on Coral Bleaching, held in Manila from 11 to 13 October 1999, as contained in the annex to the present decision;

3. Decides to integrate coral reefs into programme element 2 (Marine and coastal living resources) of the programme of work;

4. 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 set out in the annex to the present decision, as appropriate, and in cooperation with the United Nations Framework Convention on Climate Change, and invites Parties, other Governments and relevant bodies to contribute to its implementation. In conducting his work on coral bleaching, the Executive Secretary will also liaise with, inter alia, the Convention on Wetlands, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, 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 and the Global

International Waters Assessment and will formally liaise with the Global Coral Reef Monitoring Network and the International Coral Reef Initiative;

5. 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, 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;

6. 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 multidisciplinary 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 opportunities for marine taxonomists, ecologists and members of other relevant disciplines, particularly at the national level;

(f) Implementing and coordinating targeted research programmes, including predictive modelling, in the context, as appropriate, of the ongoing activities referred to in paragraph 4 of the present decision;

7. 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;

8. Agrees that physical degradation and destruction of coral reefs also pose a significant threat to the biological diversity of coral-reef ecosystems, and therefore decides to expand its request to the Subsidiary Body on Scientific, Technical and Technological Advice, as contained in section II, paragraph 1, of decision IV/5, so as to include the effects of such factors;

## II. INTEGRATED MARINE AND COASTAL AREA MANAGEMENT

9. Endorses further work on developing guidelines for coastal areas, taking into account decision V/6, on the ecosystem approach;

10. Encourages the Subsidiary Body on Scientific, Technical and Technological Advice, with the assistance of the Executive Secretary, to continue work on ecosystem evaluation and assessment, inter alia, through guidelines on evaluation and indicators;

## III. MARINE AND COASTAL LIVING RESOURCES

11. Requests the Executive Secretary to gather information on approaches to management of marine and coastal living resources in relation to those used by local and indigenous communities and to make the information available through the clearing-house mechanism;

12. Takes note of the work of the Executive Secretary on marine and coastal genetic resources, including bioprospecting, and requests the Subsidiary Body on Scientific, Technical and Technological Advice to analyse, and provide advice on scientific, technical and technological matters related to the issue of marine and coastal genetic resources;

13. Suggests that the Subsidiary Body on Scientific, Technical and Technological Advice consider the following issues and prioritize them as appropriate: the use of unsustainable fishing practices, including the effects on marine and coastal biological diversity of the discard of by-catch; the lack of use of marine and coastal protected areas in the context of management of marine and coastal living resources; and the economic value of marine and coastal resources, including sea grasses, mangroves and other coastal ecosystems; as well as capacity-building for undertaking stock assessments and for economic evaluations;

## IV. ALIEN SPECIES AND GENOTYPES

14. Requests the Executive Secretary to make use of existing information, expertise and best practices on alien species in the marine environment in the implementation of the work programme on alien species under decision IV/1 C;

## V. GENERAL

15. 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 to recommendation V/14 of the Subsidiary Body on Scientific, Technical and Technological Advice, with the addition of "Identification of best practices" for mariculture;

16. Requests the Executive Secretary to make further use of the roster of experts for peer-review and preparation of background documents;

## VI. COOPERATION

17. Invites the United Nations Educational, Scientific and Cultural Organization to continue its strong involvement in the implementation of the

programme of work, and requests the Executive Secretary to further strengthen cooperation with other global organizations;

18. Requests the Executive Secretary to coordinate with the secretariats of regional seas conventions and action plans with a view to exploring the possibility of further collaboration, including the development of joint work programmes, in the implementation of the Jakarta Mandate on Marine and Coastal Biological Diversity, paying particular attention to the identification of priorities for action at the regional level, the development of joint implementation strategies and identification of joint activities and the use of regional networks, and to report to the Conference of the Parties at its sixth meeting on collaboration with the regional seas conventions and action plans.

#### 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 1/ of corals and resilience of the ecosystem after mass mortality.

###### Response:

(a) Implement and coordinate targeted research programmes, including predictive modelling, 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

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1/ 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.

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;

(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 and regional networks, and data-repository and dissemination systems including Reef Base - the Global Coral Reef Database. Also, the current combined Sida-SAREC and World Bank programme on coral-reef degradation in the Indian Ocean, 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 require 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 Hot Spot 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;

(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 temperatures 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;

(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.

V/4. Progress report on the implementation of the programme of work for forest biological diversity

The Conference of the Parties

Stressing that, in the implementation of the programme of work for forest biological diversity, due consideration should be given to the role of all types of forests, including planted forests, and the restoration of forest ecosystems,

Noting the importance of supporting work on taxonomic, ecological and socio-economic issues for the restoration of forest ecosystems and conservation and sustainable use of forest biological diversity,

Noting the importance of forest ecosystems and forest resources (including wood and non-wood forest products and services) to indigenous and local communities and the need to ensure their participation in the assessment of status and trends of forest biodiversity for the conservation and sustainable use of forest biological diversity,

Noting the proposed establishment and coordinating role of the United Nations Forum on Forests,

Noting the potential impact of afforestation, reforestation, forest degradation and deforestation on forest biological diversity and on other ecosystems,

1. Urges the Parties, Governments and relevant organizations to advance the implementation of the work programme for forest biological diversity, as contained in decision IV/7;
2. Decides to consider expanding the focus of the work programme from research to practical action at its sixth meeting;
3. Decides to call upon Parties, Governments and organizations to take practical actions within the scope of the existing programme of work 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 (UNEP/CBD/COP/5/INF/16), and also contributing to the future work of the United Nations Forum on Forests;
4. Decides to establish an ad hoc technical expert group on forest biological diversity to assist the Subsidiary Body on Scientific, Technical and Technological Advice, on the basis of the terms specified in the annex, in its work on forest biological diversity;
5. Requests the Executive Secretary to nominate scientific and technical experts, including expertise in policy matters and traditional knowledge, to the ad hoc technical expert group mentioned in paragraph 4 above, with due regard to geographical representation;
6. Requests the Executive Secretary to prepare for the work of the ad hoc technical expert group by inviting various international organizations and institutions to contribute data and information relevant to the terms of reference;



7. Invites Parties, countries, international organizations, institutions and processes and other relevant bodies, as well as indigenous and local communities and non-governmental organizations 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;

8. Encourages Parties and other Governments to promote the integration of national forest programmes with national biodiversity strategies, applying the ecosystem approach and sustainable forest management;

9. Further encourages Parties and other Governments to ensure participation by the forest sector, private sector, indigenous and local communities and non-governmental organizations in the implementation of the programme of work;

10. Recognizes past efforts by different organizations and encourages Parties and other Governments to strengthen national capacities, including local capacities, to enhance the effectiveness and functions of forest protected area networks, as well as national and local capacities for implementation of sustainable forest management, including restoration, when needed;

11. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to consider before the sixth meeting of the Conference of the Parties, where appropriate and feasible in collaboration with the appropriate bodies of the United Nations Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change, the impact of climate change on forest biological diversity;

12. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to consider the causes and effects of human induced uncontrolled forest fires on forest biological diversity and propose possible approaches to address negative impacts;

13. Urges Parties to consider without delay the proposals for action of the Intergovernmental Forum on Forests and the Intergovernmental Panel on Forests on programme element II.d (v), on valuation of forest goods and services;

14. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to consider the impact of, and propose sustainable practices for, the harvesting of non-timber forest resources, including bush meat and living botanical resources;

15. Requests the Executive Secretary to invite relevant organizations and forest-related bodies, institutions and processes, including criteria and indicator processes, as well as indigenous and local communities, non-governmental organizations, and other relevant stakeholders to contribute to the assessment of status and trends, including gaps and priority actions needed to address threats to forest biological diversity;

16. Urges the United Nations Framework Convention on Climate Change, including its Kyoto Protocol, to ensure that future activities of the United Nations Framework Convention on Climate Change, including forest and carbon sequestration, are consistent with and supportive of the conservation and sustainable use of biological diversity;

17. Requests the Executive Secretary to assemble, in collaboration with the United Nations Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change, existing information relating to the integration of biodiversity considerations, including biodiversity conservation, in the implementation of the United Nations Framework Convention on Climate Change and its Kyoto Protocol;

18. Requests the Subsidiary Body on Scientific, Technical and Technological Advice, prior to the sixth meeting of the Conference of Parties, to prepare scientific advice, where appropriate and feasible in collaboration with the appropriate bodies of the United Nations Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change, in order to integrate biodiversity considerations, including biodiversity conservation, in the implementation of the United Nations Framework Convention on Climate Change and its Kyoto Protocol;

19. Requests the President of the fifth meeting of the Conference of the Parties of the Convention on Biological Diversity to transmit the present decision to the meeting of the Conference of the Parties of the United Nations Framework Convention on Climate Change at its sixth meeting;

20. Invites the Executive Secretary to strengthen cooperation with the United Nations Framework Convention on Climate Change, including its Kyoto Protocol, the United Nations Convention to Combat Desertification, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Ramsar Convention on Wetlands especially on issues relevant to forest biological diversity, taking into account the role of the United Nations Forum on Forests.

#### Annex

##### AD HOC TECHNICAL EXPERT GROUP ON FOREST BIOLOGICAL DIVERSITY

#### Terms of reference

Taking into account the ecosystem approach and sustainable forest management, decisions of the Conference of the Parties on thematic and cross-cutting issues, in particular Article 8(j), proposals for action agreed by the Intergovernmental Panel on Forests (IPF) and the Intergovernmental Forum on Forests (IFF), as well as the work of other relevant international processes and organizations including the Food and Agricultural Organization of the United Nations (FAO), processes related to criteria and indicators, the International Tropical Timber Organization (ITTO), and the Centre for International Forestry Research (CIFOR), the outcome of the Commission on Sustainable Development at its eighth meeting, and contributing to the future work of the United Nations Forum on Forests (UNFF) in the context of and in support of the programme of work for forest biological diversity, and making use of the information contained in available case-studies,

1. Provide advice on scientific programmes and international cooperation in research and development related to conservation and sustainable use of forest biological diversity in the context of the programme of work for forest biological diversity (decisions IV/7 and V/4);

2. (a) Carry out a review of available information on the status and trends of, and major threats to, forest biological biodiversity, to identify significant gaps in that information;

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(b) Identify options and suggest priority actions, timeframes and relevant actors for the conservation and sustainable use of forest biological diversity for their implementation through activities such as:

- (i) Identifying new measures and ways to improve the conservation of forest biological diversity in and outside existing protected areas;
- (ii) Identifying practical measures to mitigate the direct and underlying causes of forest biodiversity loss;
- (iii) Identifying tools and mechanisms to implement the identified measures and actions;
- (iv) Identifying measures for the restoration of degraded forest; and
- (v) Identifying strategies for enhancement of collaborative management with local and indigenous communities;

(c) To identify innovative, efficient and state-of-the-art technologies and know-how relating to assessment, planning, valuation, conservation and sustainable use of forest biodiversity and provide advice on ways and means of promoting the development and transfer of such technologies.

#### Duration of work

The work of the ad hoc technical expert group on forest biodiversity should be initiated immediately after approval by the Conference of the Parties at its fifth meeting of the terms of reference, and the nomination of experts, and completed not later than the seventh meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, in time for the sixth meeting of the Conference of the Parties, which will consider forest biodiversity as one of the main priority issues.

V/5. Agricultural biological diversity: review of phase I of the programme of work and adoption of a multi-year work programme

The Conference of the Parties

I. PROGRAMME OF WORK

1. Welcomes the assessment of ongoing activities and instruments (UNEP/CBD/SBSTTA/5/INF/10) and its main findings as presented in the note by the Executive Secretary on agricultural biological diversity: review of phase I of the programme of work and adoption of a multi-year programme of work (UNEP/CBD/COP/5/11);
2. Takes note of the decision on agriculture adopted by the Commission on Sustainable Development at its eighth session, held in New York from 24 April to 5 May 2000;
3. Endorses the programme of work on agricultural biological diversity contained in the annex to the present decision, contributing to the implementation of decision III/11;
4. 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 within this framework;
5. Recognizes the contribution of farmers, indigenous and local communities to the conservation and sustainable use of agricultural biodiversity and the importance of agricultural biodiversity to their livelihoods, emphasizes the importance of their participation in the implementation of the programme of work, and recognizes the need for incentives, in accordance with Article 11 of the Convention on Biological Diversity and consistent with its Article 22, and support for capacity-building and information exchange to benefit farmers, indigenous and local communities;
6. Recalling decision III/11, requests the Executive Secretary to invite the Food and Agriculture Organization of the United Nations to support the development and implementation of the programme of work, 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;
7. Requests the Executive Secretary to undertake the necessary steps for the full implementation of the programme of work;
8. Requests the Executive Secretary to prepare a progress report and proposals for the further implementation of this programme of work for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice prior to the sixth meeting of the Conference of the Parties on the basis of which the Conference of the Parties may provide further guidance, for example, in the form of:

- (a) A timetable for implementation of activities, including milestones;
- (b) A schedule for reporting on further progress;
- (c) Resource requirements; and
- (d) Responsibilities of partners and collaborators;

9. Invites Parties, in accordance with Article 20 of the Convention, and bilateral and international funding agencies to provide support for the implementation of the activities of the programme of work on agricultural biological diversity, in particular, for capacity-building and case-studies in developing countries and countries with economies in transition;

10. Invites Parties, Governments and relevant organizations to support actions to raise public awareness in support of sustainable farming and food production systems that maintain agricultural biodiversity;

11. Recognizes the potential contribution that the revised International Undertaking on Plant Genetic Resources, in harmony with the Convention, would have to assist in the implementation of this programme of work;

12. While noting the report of the Chairman of the Commission on Genetic Resources for Food and Agriculture of the Food and Agriculture Organization of the United Nations (UNEP/CBD/COP/5/INF/12), urges the Commission to finalize its work as soon as possible. The International Undertaking is envisaged to play a crucial role in the implementation of the Convention on Biological Diversity. The Conference of the Parties affirms its willingness to consider a decision by the Conference of the Food and Agriculture Organization of the United Nations that the International Undertaking become a legally binding instrument with strong links to both the Food and Agriculture Organization of the United Nations and the Convention on Biological Diversity, and calls upon Parties to coordinate their positions in both forums;

13. Welcomes the adoption of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, and urges Parties and Governments to ratify this Convention;

14. Encourages Parties and Governments to support the application of the Executive Secretary of the Convention on Biological Diversity for observer status in the Committee on Agriculture of the World Trade Organization, in line with paragraph 9 of decision IV/6 of the Conference of Parties;

## II. INTERNATIONAL INITIATIVE FOR THE CONSERVATION AND SUSTAINABLE USE OF POLLINATORS

Considering decision III/11, in which the Conference of the Parties established the programme of work on agricultural biodiversity, and called for priority attention to components of biological diversity responsible for the maintenance of ecosystem services important for the sustainability of agriculture, including pollinators,

Considering the recommendations of the Sao Paulo Declaration on Pollinators, based on the results of the Workshop on the Conservation and Sustainable Use of Pollinators in Agriculture, with an Emphasis on Bees, held in Sao Paulo, Brazil, from 7 to 9 October 1998, presented by the Brazilian Government at the fifth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice,

Considering the urgent need to address the issue of worldwide decline of pollinator diversity, and considering recommendation V/9 of the Subsidiary Body on Scientific, Technical and Technological Advice,

15. Decides to establish an International Initiative for the Conservation and Sustainable Use of Pollinators as a cross-cutting initiative within the programme of work on agricultural biodiversity to promote coordinated action worldwide to:

(a) Monitor pollinator decline, its causes and its impact on pollination services;

(b) Address the lack of taxonomic information on pollinators;

(c) Assess the economic value of pollination and the economic impact of the decline of pollination services;

(d) Promote the conservation and the restoration and sustainable use of pollinator diversity in agriculture and related ecosystems;

16. Requests the Executive Secretary to invite the Food and Agriculture Organization of the United Nations to facilitate and coordinate the Initiative in close cooperation with other relevant organizations and to consider establishing a coordination mechanism, with geographical balance and with leading relevant organizations, to prepare a proposal for a plan of action taking into account the recommendations in the Sao Paulo Declaration on Pollinators, as well as on contributions submitted by countries and relevant organizations, for submission to and review by the Subsidiary Body on Scientific, Technical and Technological Advice and consideration by the Conference of the Parties at its sixth meeting;

17. Invites leading relevant organizations, such as IUCN-The World Conservation Union, the International Bee Research Association and the International Commission for Plant-Bee Relationships, the International Centre of Insect Physiology and Ecology, the international agriculture research centres of the Consultative Group on International Agricultural Research and other relevant regional and international bodies, to collaborate in supporting actions in Parties and countries subject to pollinator decline;

18. Requests the Executive Secretary, the Subsidiary Body on Scientific, Technical and Technological Advice and the financial mechanism to support the development and implementation of the Initiative and invites Parties and Governments to collaborate and compile case-studies and implement pilot projects, making use of the clearing-house mechanism, and to report to the Conference of the Parties at its sixth meeting.

### III. GENETIC USE RESTRICTION TECHNOLOGIES

19. Decides to continue the work on genetic use restriction technologies under the umbrella of, and integrated into, each of the four

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elements of the programme of work on agricultural biological diversity and invites the Subsidiary Body on Scientific, Technical and Technological Advice to report to the Conference of the Parties at its sixth meeting;

20. 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, and other competent organizations and research bodies, to further study the potential implications of genetic use restriction technologies for 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;

21. 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 their initiatives in this area;

22. 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;

23. 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.

24. 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;

25. 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,

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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;

26. 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;

27. 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;

28. 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;

29. 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.



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 agreed 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.

##### 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. Assessments may also be needed for the interactions between agricultural practices, sustainable agriculture and the conservation and sustainable use of the components of biodiversity referred to in Annex I to the Convention. 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.

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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. 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. Carry out an assessment of the knowledge, innovations and practices of farmers and indigenous and local communities in sustaining agricultural biodiversity and agro-ecosystem services for and in support of food production and food security.

1.4. Promote and develop assessments of the interactions between agricultural practices and the conservation and sustainable use of the components of biodiversity referred to in Annex I to the Convention.

1.5. Develop methods and techniques for assessing and monitoring the status and trends of agricultural biodiversity and other components of biodiversity in agricultural ecosystems, including:

(a) Criteria and guidelines for developing indicators to facilitate monitoring and assessment of the status and trends of biodiversity in different production systems and environments, and the impacts of various practices, building wherever possible on existing work, in accordance with decision V/7, on the development of indicators on biological diversity, in accordance to the particular characteristics and needs of Parties;

(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 biodiversity in

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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.

agricultural ecosystems, at all levels and scales, between countries, and regional and international partner organizations; <sup>3/</sup>

(c) Data and information exchange on agricultural biodiversity (including available information on ex situ collections) 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.

#### 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 1.5, will be supported through catalytic activities, building upon and bringing together existing programmes, in order assist Parties 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,

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<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.

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 goods and services provided by the different levels and functions of agricultural biodiversity. 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 multiple goods and services provided by the different levels and functions of agricultural biodiversity and the interaction between its 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, varieties and breeds, 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 species, varieties and breeds;
- (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.

2.3. Promote methods of sustainable agriculture that employ management practices, technologies and policies that promote the positive and mitigate the negative impacts of agriculture on biodiversity, with particular focus on the needs of farmers and indigenous and local communities.

#### Ways and means

Case-studies will be carried out and provided 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. Inputs would be sought from all relevant stakeholders. 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, indigenous and local communities, and their organizations and other stakeholders, to manage sustainably agricultural biodiversity so as to increase their benefits, and to promote 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

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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 of agricultural biodiversity and the multiple goods and services provided by its different levels and functions, 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.

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

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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.

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;

(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.

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

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, genetic resources of trees that are an integral part of farming systems;
  - (ii) Animal genetic resources, including fishery genetic resources, in cases where fish production is part of the farming system, and insect genetic resources;
  - (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, as well as wild relatives of cultivated and domesticated species;

(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.

V/6. Ecosystem approach

The Conference of the Parties

1. Endorses the description of the ecosystem approach and operational guidance contained in sections A and C of the annex to the present decision, recommends the application of the principles contained in section B of the annex, as reflecting the present level of common understanding, and encourages further conceptual elaboration, and practical verification;

2. Calls upon Parties, other Governments, and international organizations to apply, as appropriate, the ecosystem approach, giving consideration to the principles and guidance contained in the annex to the present decision, and to develop practical expressions of the approach for national policies and legislation and for appropriate implementation activities, with adaptation to local, national, and, as appropriate, regional conditions, in particular in the context of activities developed within the thematic areas of the Convention;

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 collect, analyse and compare the case-studies referred to in paragraph 3 above, and prepare a synthesis of case-studies and lessons learned for presentation to the Subsidiary Body on Scientific, Technical and Technological Advice prior to the seventh meeting of the Conference of the Parties;

5. Requests the Subsidiary Body on Scientific, Technical and Technological Advice, at a meeting prior to the seventh meeting of the Conference of the Parties, to review the principles and guidelines of the ecosystem approach, to prepare guidelines for its implementation, 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;

6. Recognizes the need for support for capacity-building to implement the ecosystem approach, and invites Parties, Governments and relevant organizations to provide technical and financial support for this purpose;

7. Encourages Parties and Governments to promote regional cooperation, for example through the establishment of joint declarations or memoranda of understanding in applying the ecosystem approach across national borders.

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

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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:

**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 that 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; (ii) underlying causes of biodiversity loss; and (iii) 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. Enhance benefit-sharing

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 maintained or restored. 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.

V/7. Identification, monitoring and assessment, and indicators

The Conference of the Parties

1. Requests the Executive Secretary, in broad consultation with Parties, drawing on the roster of experts, 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, covering the ecosystem, species and genetic levels, taking into account the ecosystem approach, that may be used by Parties at their national level and in national reporting and that also 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 case-studies submitted by Parties, Governments and relevant organizations;

3. Acknowledges that the capacity of many countries, particularly least developed countries, to reliably and consistently monitor indicators is limited and that, therefore, indicators will need to be developed incrementally over time, based on national priorities;

4. 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;

5. Requests the Executive Secretary to produce an interim report on progress, including the ongoing work on incentives in the thematic and other work programmes, for review by the Subsidiary Body on Scientific, Technical and Technological Advice prior to the sixth meeting of the Conference of the Parties and to submit a final report on the conclusions of this initiative to the Conference of the Parties at its sixth meeting.

V/8. Alien species that threaten ecosystems, habitats or species

The Conference of the Parties

1. Urques Parties, Governments and relevant organizations to apply the interim guiding principles contained in annex I to the present decision, as appropriate, in the context of activities aimed at implementing Article 8(h) of the Convention on Biological Diversity, and in the various sectors;
2. Endorses the outline for case-studies contained in annex II to the present decision;
3. Urques Parties, Governments and relevant organizations to submit case-studies to the Executive Secretary, particularly focusing on thematic assessments, on the basis of the outline contained in the annex to the present decision;
4. Requests the Convention's clearing-house mechanism to disseminate and compile these case-studies;
5. 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 on Scientific, Technical and Technological Advice 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 prior to the sixth meeting of the Conference of Parties, and requests the Executive Secretary to distribute those comments through the national focal points;
6. Urques Parties, other Governments and relevant bodies to give priority to the development and implementation of alien invasive species strategies and action plans;
7. Strongly encourages Parties to develop mechanisms for transboundary cooperation and regional and multilateral cooperation in order to deal with the issue, including the exchange of best practices;
8. Urques Parties, other Governments and relevant bodies, such as the Global Invasive Species Programme, in their work on alien invasive species, to give priority attention to geographically and evolutionarily isolated ecosystems, and to use the ecosystem approach and precautionary and biogeographical approaches, as appropriate;
9. Encourages Parties to develop effective education, training and public-awareness measures, as well as to inform the public about the different aspects of the issue, including the risks posed by alien invasive species;
10. Requests the Global Invasive Species Programme, in developing a global strategy to deal with alien invasive species, to ensure consistency with the provisions on alien invasive species in Article 8(h) of the Convention and relevant provisions within other articles, including Article 14, taking into full account considerations on alien invasive species within relevant decisions of the Conference of the Parties on, for example, the conservation and sustainable use of inland-water, marine and coastal and forest biological diversity, and the biodiversity of dry and sub-humid lands;

11. 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 14 of the present decision, with the aim of coordinating work on alien invasive species, and to report on potential joint programmes of work to the Subsidiary Body on Scientific, Technical and Technological Advice;

12. Invites the Parties, Governments, the Global Invasive Species Programme and other relevant bodies, to disseminate publicly available information which they hold or acquire, including databases of alien species, through the Convention's clearing-house mechanism;

13. 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 prior to the sixth meeting of the Conference of Parties, recognizing the need to continue the work of the Global Invasive Species Programme through the prompt development of the second phase of the Global Invasive Species Programme, with emphasis on ecosystems vulnerable to alien species invasions;

14. Requests the Executive Secretary to collaborate with the Global Invasive Species Programme, the Food and Agriculture Organization of the United Nations, the International Maritime Organization, the World Health Organization and other relevant organizations, and other relevant internationally and regionally binding and non-binding instruments to assist the Parties to the Convention in:

- (a) Developing standardized terminology on alien species;
- (b) Developing criteria for assessing risks from introduction of alien species;
- (c) Developing processes for assessing the socio-economic implications of alien invasive species, particularly the implications for indigenous and local communities;
- (d) Furthering research on the impact of alien invasive species on biological diversity;
- (e) Developing means to enhance the capacity of ecosystems to resist or recover from alien species invasions;
- (f) Developing a system for reporting new invasions of alien species and the spread of alien species into new areas;
- (g) Assessing priorities for taxonomic work;

15. Requests the Executive Secretary, in collaboration with the Global Invasive Species Programme, the Food and Agriculture Organization of

the United Nations, the International Maritime Organization, the World Health Organization and other relevant organizations and instruments to develop a paper for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties at its sixth meeting, comprising:

(a) A comprehensive review on the efficiency and efficacy of existing measures for prevention, early detection, eradication and control of alien invasive species and their impacts;

(b) A progress report on the matters listed in paragraphs 5 and 14 of the present decision;

(c) All options for future work on alien invasive species under the Convention on Biological Diversity, which would provide practical support to Parties, Governments and organizations in the implementation of Article 8(h) of the Convention and lead to the full and effective implementation of Article 8(h);

16. Decides that, at its sixth meeting, the Conference of the Parties, on the basis of the information referred to in paragraphs 5 and 15 of the present decision, will consider options for the full and effective implementation of Article 8(h) including the possibilities of:

(a) Further developing the guiding principles on the prevention of introduction, and mitigation of the impacts, of alien invasive species;

(b) Developing an international instrument; and/or

(c) Other options;

17. Invites the Global Environment Facility, Parties, Governments and funding organizations to provide adequate and timely support to enable the Global Invasive Species Programme to fulfil the tasks outlined in the present decision.

#### Annex I

##### INTERIM GUIDING PRINCIPLES FOR THE PREVENTION, INTRODUCTION AND MITIGATION OF IMPACTS OF ALIEN SPECIES

It should be noted that in the interim guiding principles below, terms are used for which a definition has not yet been developed, pending a decision by the Conference of Parties on the development of a standardized terminology on alien species, as mentioned in paragraph 5 of recommendation V/4. In the interim and for the purpose of these interim principles, to avoid confusion the following definitions are used: (i) "alien" or "alien species" refers to a species occurring outside its normal distribution; and (ii) "alien invasive species" refers to those alien species which threaten ecosystems, habitats or species.

#### A. General

##### Guiding principle 1: Precautionary approach

Given the unpredictability of the impacts on biological diversity of alien species, efforts to identify and prevent unintentional introductions as

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well as decisions concerning intentional introductions should be based on the precautionary approach. Lack of scientific certainty about the environmental, social and economic risk posed by a potentially invasive alien species or by a potential pathway should not be used as a reason for not taking preventative action against the introduction of potentially invasive alien species. Likewise, lack of certainty about the long-term implication of an invasion should not be used as a reason for postponing eradication, containment or control measures.

Guiding principle 2: Three-stage hierarchical approach

Prevention is generally far more cost effective and environmentally desirable than measures taken following introduction of an alien invasive species. Priority should be given to prevention of entry of alien invasive species (both between and within States). If entry has already taken place, actions should be undertaken to prevent the establishment and spread of alien species. The preferred response would be eradication at the earliest possible stage (principle 13). In the event that eradication is not feasible or is not cost-effective, containment (principle 14) and long-term control measures (principle 15) should be considered. Any examination of benefits and costs (both environmental and economic) should be done on a long-term basis.

Guiding principle 3: Ecosystem approach

All measures to deal with alien invasive species should be based on the ecosystem approach, in line with the relevant provisions of the Convention and the decisions of the Conference of the Parties.

Guiding principle 4: State responsibility

States should recognize the risk that they may pose to other States as a potential source of alien invasive species, and should take appropriate actions to minimize that risk. In accordance with Article 3 of the Convention on Biological Diversity, and principle 2 of the 1992 Rio Declaration on Environment and Development, States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction. In the context of alien invasive species, activities that could be a risk for another State include:

(a) The intentional or unintentional transfer of an alien invasive species to another State (even if it is harmless in the State of origin); and

(b) The intentional or unintentional introduction of an alien species into their own State if there is a risk of that species subsequently spreading (with or without a human vector) into another State and becoming invasive.

Guiding principle 5: Research and monitoring

In order to develop an adequate knowledge base to address the problem, States should undertake appropriate research on and monitoring of alien invasive species. This should document the history of invasions (origin, pathways and time-period), characteristics of the alien invasive species, ecology of the invasion, and the associated ecological and economic impacts and how they change over time. Monitoring is the key to early detection of



new alien species. It requires targeted and general surveys, which can benefit from the involvement of local communities.

Guiding principle 6: Education and public awareness

States should facilitate education and public awareness of the risks associated with the introduction of alien species. When mitigation measures are required, education and public-awareness-oriented programmes should be set in motion so as to inform local communities and appropriate sector groups on how to support such measures.

B. Prevention

Guiding principle 7: Border control and quarantine measures

1. States should implement border control and quarantine measures to ensure that:

(a) Intentional introductions are subject to appropriate authorization (principle 10);

(b) Unintentional or unauthorized introductions of alien species are minimized.

2. These measures should be based on an assessment of the risks posed by alien species and their potential pathways of entry. Existing appropriate governmental agencies or authorities should be strengthened and broadened as necessary, and staff should be properly trained to implement these measures. Early detection systems and regional coordination may be useful.

Guiding principle 8: Exchange of information

States should support the development of database(s), such as that currently under development by the Global Invasive Species Programme, for compilation and dissemination of information on alien species that threaten ecosystems, habitats or species, to be used in the context of any prevention, introduction and mitigation activities. This information should include incident lists, information on taxonomy and ecology of invasive species and on control methods, whenever available. The wide dissemination of this information, as well as national, regional and international guidelines, procedures and recommendations such as those being compiled by the Global Invasive Species Programme should also be facilitated through, inter alia, the clearing-house mechanism.

Guiding principle 9: Cooperation, including capacity-building

Depending on the situation, a State's response might be purely internal (within the country), or may require a cooperative effort between two or more countries, such as:

(a) Where a State of origin is aware that a species being exported has the potential to be invasive in the receiving State, the exporting State should provide information, as available, on the potential invasiveness of the species to the importing State. Particular attention should be paid where exporting Parties have similar environments;

(b) Agreements between countries, on a bilateral or multilateral basis, should be developed and used to regulate trade in certain alien species, with a focus on particularly damaging invasive species;

(c) States should support capacity-building programmes for States that lack the expertise and resources, including financial, to assess the risks of introducing alien species. Such capacity-building may involve technology transfer and the development of training programmes.

#### C. Introduction of species

##### Guiding principle 10: Intentional introduction

No intentional introduction should take place without proper authorization from the relevant national authority or agency. A risk assessment, including environmental impact assessment, should be carried out as part of the evaluation process before coming to a decision on whether or not to authorize a proposed introduction. States should authorize the introduction of only those alien species that, based on this prior assessment, are unlikely to cause unacceptable harm to ecosystems, habitats or species, both within that State and in neighbouring States. The burden of proof that a proposed introduction is unlikely to cause such harm should be with the proposer of the introduction. Further, the anticipated benefits of such an introduction should strongly outweigh any actual and potential adverse effects and related costs. Authorization of an introduction may, where appropriate, be accompanied by conditions (e.g., preparation of a mitigation plan, monitoring procedures, or containment requirements). The precautionary approach should be applied throughout all the above-mentioned measures.

##### Guiding principle 11: Unintentional introductions

1. All States should have in place provisions to address unintentional introductions (or intentional introductions that have established and become invasive). These include statutory and regulatory measures, institutions and agencies with appropriate responsibilities and with the operational resources required for rapid and effective action.

2. Common pathways leading to unintentional introductions need to be identified and appropriate provisions to minimize such introductions should be in place. Sectoral activities, such as fisheries, agriculture, forestry, horticulture, shipping (including the discharge of ballast waters), ground and air transportation, construction projects, landscaping, ornamental aquaculture, tourism and game-farming, are often pathways for unintentional introductions. Legislation requiring environmental impact assessment of such activities should also require an assessment of the risks associated with unintentional introductions of alien invasive species.

#### D. Mitigation of impacts

##### Guiding principle 12: Mitigation of impacts

Once the establishment of an alien invasive species has been detected, States should take steps such as eradication, containment and control, to mitigate the adverse effects. Techniques used for eradication, containment or control should be cost-effective, safe to the environment, humans and agriculture, as well as socially, culturally and ethically acceptable.

Mitigation measures should take place in the earliest possible stage of invasion, on the basis of the precautionary approach. Hence, early detection of new introductions of potentially invasive or invasive species is important, and needs to be combined with the capacity to take rapid follow-up action.

#### Guiding principle 13: Eradication

Where it is feasible and cost-effective, eradication should be given priority over other measures to deal with established alien invasive species. The best opportunity for eradicating alien invasive species is in the early stages of invasion, when populations are small and localized; hence, early detection systems focused on high-risk entry points can be critically useful. Community support, built through comprehensive consultation, should be an integral part of eradication projects.

#### Guiding principle 14: Containment

When eradication is not appropriate, limitation of spread (containment) is an appropriate strategy only where the range of the invasive species is limited and containment within defined boundaries is possible. Regular monitoring outside the control boundaries is essential, with quick action to eradicate any new outbreaks.

#### Guiding principle 15: Control

Control measures should focus on reducing the damage caused rather than on merely reducing the numbers of the alien invasive species. Effective control will often rely on a range of integrated techniques. Most control measures will need to be regularly applied, resulting in a recurrent operating budget and the need for a long-term commitment to achieve and maintain results. In some instances, biological control may give long-term suppression of an alien invasive species without recurrent costs, but should always be implemented in line with existing national regulations, international codes and principle 10 above.

### Annex II

#### 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)

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- (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

V/9. Global Taxonomy Initiative: implementation and further advance of the Suggestions for Action

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, and through information networks;

(e) Communication to the Executive Secretary and Global Taxonomy Initiative coordination mechanism, by 31 December 2001, of 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, including regional meetings of scientists, managers and policy makers to prioritize the most urgent global taxonomic needs and facilitate the formulation of specific regional and national 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 Advice 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 by 31 December 2000, linked to other national focal points, and participate in the development of regional networks to facilitate information-sharing for the Global Taxonomy Initiative;

5. Invites all interested international and regional conventions, initiatives and programmes to indicate their support for the Global Taxonomy Initiative and its coordination mechanism, through the Executive Secretary, and in so doing to specify their particular areas of interest and any support for the implementation of the Global Taxonomy Initiative that could be forthcoming;

6. Urges eligible Parties and consortia of eligible Parties to seek resources for the above priority actions through the financial mechanism, and requests the financial mechanism to continue promoting awareness of the Global Taxonomy Initiative in its outreach activities, such as the Capacity Development Initiative and the Country Dialogue Workshops, and to investigate ways both within and outside its operational programme structure to facilitate capacity-building in taxonomy, and the implementation of the short-term activities referred to in the annex to the present decision.

#### Annex

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

#### Mandate

Building on the guidance contained in recommendation V/3 of the Subsidiary Body on Scientific, Technical and Technological Advice, the coordination mechanism shall assist the Executive Secretary to facilitate international cooperation and to coordinate activities on matters pertaining to the implementation and development of the Global Taxonomy Initiative (GTI). The Executive Secretary in carrying out this mandate will work closely with the clearing-house mechanism and report on progress of the Global Taxonomy Initiative to every other meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, and, as appropriate, to the Conference of the Parties. The first meeting of the coordination mechanism shall take place no later than 30 November 2000. Meetings of the coordination mechanism can only take place with adequate representation from all regions, and subject to available resources.

#### Specific short-term activities to be undertaken prior to the sixth meeting of the Conference of the Parties

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

(a) Develop a work programme for the Global Taxonomy Initiative, consistent with the Convention strategic plan, for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice;

(b) Convene regional meetings of scientists, managers and policy makers to prioritize the most urgent global taxonomic needs for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice in finalizing the Global Taxonomy Initiative work programme;

(c) Establish mechanisms to use the Global Taxonomy Initiative 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, in consultation with the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice shall at the earliest opportunity select 10 members of the coordination mechanism, with due regard to geographical balance to allow two representatives from each region, on a rotational basis. The Executive Secretary shall invite a limited number of leading relevant organizations such as the United Nations Environment Programme, the United Nations Educational, Scientific and Cultural Organization, the Food and Agriculture Organization of the United Nations, the International Council of Scientific Unions, the Global Biodiversity Information Facility, the Global Environment Facility, and BIONET INTERNATIONAL to participate in the work of the coordination mechanism.

V/10. Global strategy for plant conservation

The Conference of the Parties,

Recognizing that plant diversity is a common concern of humankind, and an essential resource for the planet,

Concerned that as many as two thirds of the world's plant species may be in danger of extinction in nature during the course of the twenty first century, and that this threatens humankind's expectation of using plant diversity to build sustainable, healthy and better lives for the future,

Taking note of the proposal contained in the Gran Canaria Declaration (UNEP/CBD/COP/5/INF/32), calling for the development of a Global Strategy for Plant Conservation, as well as the resolution of the XVI International Botanical Congress, held in St.Louis, Missouri, United States of America, in August 1999, and taking into account the International Agenda for Botanic Gardens in Conservation, the Global Invasive Species Programme, and the Plants Programme of the IUCN Species Survival Commission,

1. Recognizes that the Convention on Biological Diversity is a leading international convention for the conservation and sustainable use of biodiversity, and further recognizes the cross-cutting nature of plant conservation;

2. Recognizes also the important role of other existing initiatives, in particular the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture, and is aware of current efforts to revise the International Undertaking on Plant Genetic Resources for Food and Agriculture developed by the Food and Agriculture Organization of the United Nations;

3. Decides to consider, at its sixth meeting, the establishment of a global strategy for plant conservation;

4. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to make recommendations to the Conference of the Parties, for consideration at its sixth meeting, regarding the development of a global strategy for plant conservation, which would be aimed at halting the current and continuing unacceptable loss of plant diversity;

5. In order to better enable the Subsidiary Body on Scientific, Technical and Technological Advice to carry out this task, requests the Executive Secretary to solicit the views of Parties, and to liaise with relevant organizations, including, inter alia, the Global Plan of Action of the Food and Agriculture Organization, the Man and the Biosphere Programme of the United Nations Educational, Scientific and Cultural Organization, Botanic Gardens Conservation International, and the Convention on International Trade in Endangered Species of Wild Fauna and Flora, in order to gather information regarding plant conservation, including information on existing international initiatives. This information is to be reported to the Subsidiary Body on Scientific, Technical and Technological Advice, together with advice on the relationship between plant conservation and the thematic work programmes.



V/11. Additional financial resources

The Conference of the Parties,

Emphasizing the vital importance of adequate financial resources for the implementation of the Convention on Biological Diversity and reaffirming the importance of providing new and additional financial resources through the financial mechanism in accordance with Article 20 of the Convention,

Expressing 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,

Noting that a number of funding institutions have increased financial support to biodiversity projects and activities or have taken this into account in their regular operations,

Also noting the lack of comprehensive information about financial support to biological diversity,

Welcoming 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 Cooperation and Development,

1. 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;
2. Invites the Global Environment Facility to assist the Executive Secretary, in collaboration with the relevant international organizations and institutions, to convene a workshop on financing for biodiversity with a view to sharing knowledge and experience among funding institutions, and to explore the potential of the Global Environment Facility to act as a funding catalyst;
3. Recognizes the difficulties in developing a format for standardized information on financial support from developed country Parties for the objectives of the Convention and requests the workshop referred to in paragraph 2 of the present decision to provide further advice to the Executive Secretary on this matter;
4. Urges developed country Parties and encourages developing country Parties to establish a process to monitor financial support to biodiversity, and to provide further information in their national reports on financial support to biodiversity to the Conference of the Parties at its sixth meeting;
5. Invites, inter alia, funding institutions, United Nations bodies, intergovernmental organizations and non-governmental organizations to designate focal points, to develop a reporting relationship with the Convention, and to provide information to the Executive Secretary on their activities in support of the objectives of the Convention;
6. Recognizes that more complete information concerning the financial support, from all relevant sources, for the implementation of the

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objectives of the Convention, including the work programmes established by the Conference of the Parties, will assist it to develop further guidance to the financial mechanism and to better coordinate with other funding institutions;

7. 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 contribute to the High-Level Consultation on Financing for Development of the General Assembly in 2001;

8. Also 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, and, as appropriate and upon request, to assist these in defining their funding strategies and programmes and in the promotion of capacity-building;

9. Urges developed country Parties to promote support for the implementation of the objectives of the Convention on Biological Diversity in the funding policy of their bilateral funding institutions and those of regional and multilateral funding institutions;

10. Urges developing country Parties to incorporate ways and means to support implementation of the objectives of the Convention on Biological Diversity into their dialogue with funding institutions;

11. Emphasizes the importance of financial support for the implementation of national biodiversity strategies and action plans and for capacity-building for implementation of the Cartagena Protocol;

12. 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;

13. Notes also that the involvement of all relevant stakeholders can contribute to the implementation of the Convention;

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

15. Invites the United Nations Environment Programme, through its financial-sector initiatives, the World Bank and other financial institutions, to promote consideration of biological diversity by the financial sector;

16. Urges Parties, subject to their national legislation, to promote the consideration of tax exemptions in national taxation systems for biodiversity-related donations, and requests the Executive Secretary to encourage charitable institutions to support activities that promote the implementation of the Convention;

17. Requests the Executive Secretary to prepare a report on the implementation of the present decision for the consideration of the Conference of the Parties at its sixth meeting.

V/12. Second review of the financial mechanism

The Conference of the Parties

1. Decides to adopt the annex to the present decision, 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 and its institutional structure in providing and delivering financial resources, as well as in overseeing, monitoring and evaluating the activities financed by its 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 efficiency, effectiveness and sustainability of the GEF-funded activities on the implementation of the Convention and in the achievement of its three objectives.

B. Methodology

2. The review will cover the activities of the financial mechanism for the period from November 1996 to June 2001, with special emphasis on those activities that have been concluded during the same period.

3. The review will cover all operational programmes of the financial mechanism relevant to the Convention on Biological Diversity.

4. The review should be carried out by an independent evaluator and shall draw upon, inter alia, the following sources of information:

(a) Information provided by the Parties and countries on their experiences regarding the financial mechanism;

(b) Reports prepared by the Global Environment Facility, including its reports to the Conference of the Parties, programme status reports, operational reports on GEF programmes and the GEF pipeline, reports of the GEF Monitoring and Evaluation Programme, in particular the second Overall Performance Study, operational reports on GEF programmes and the annual programme performance report;

(c) Project reviews and evaluation reports prepared by the Implementing Agencies;

(d) Information provided by other relevant stakeholders in GEF-financed biodiversity activities.

#### C. Criteria

5. 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 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;

(b) The actions taken by the financial mechanism in response to the guidance of the Conference of the Parties, as contained in decisions I/2, II/6, III/5, IV/13 and V/13;

(c) The findings and recommendations of the second Overall Performance Study of the GEF;

(d) Any other significant issue raised by the Parties.

#### D. Procedures

6. Under the authority and with the support of the Conference of the Parties, the Executive Secretary shall contract an experienced independent evaluator to undertake the review, in accordance with the above objectives, methodology and criteria.

7. The Parties, countries and stakeholders, including relevant organizations, are invited to communicate to the Executive Secretary, by 30 September 2001, their detailed views on the effectiveness and efficiency of the financial mechanism on the basis of experience during the period under review.

8. The communications referred to above shall be structured along the lines of a questionnaire designed by the evaluator 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. The evaluator shall prepare a compilation and synthesis of the information received.

9. The evaluator will undertake such desk studies, interviews, field visits and collaboration with the GEF secretariat as may be required for the preparation of the study, subject to the availability of resources.

10. The compilation and synthesis of the information and recommendations for future improvements received in response to the questionnaire and the report of the evaluator shall be submitted to the Bureau for review and comments prior to their circulation.

11. The draft compilation and synthesis, and the report of the evaluator, 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 documentation and identified by source.

12. The Executive Secretary shall submit the documents to Parties at least three months prior to the sixth meeting of the Conference of the Parties.

V/13. Further guidance to the financial mechanism

The Conference of the Parties,

Having examined the report of the Global Environment Facility (UNEP/CBD/COP/5/7),

Taking note of the note by the Executive Secretary (UNEP/CBD/COP/5/13/Add.1) with respect to previous guidance in relation to agenda items of the fifth meeting, in response to paragraph 4 of decision IV/11,

Taking note with appreciation of the efforts of the Global Environment Facility to provide additional funding for biodiversity enabling activities under expedited procedures, and urging it to continue to improve access to funding by developing country Parties and increase flexibility in its operational criteria,

1. Welcomes the decision of the Council of the Global Environment Facility requesting its secretariat, in consultation with the Implementing Agencies and the Secretariat of the Convention on Biological Diversity, to develop an initial strategy for assisting countries to prepare for the entry into force of the Cartagena Protocol on Biosafety;

2. Decides to provide the following additional guidance to the Global Environment Facility in the provision of financial resources, in conformity with decisions I/1, II/6, III/5 and IV/13 of the Conference of the Parties. In this regard, the Global Environment Facility shall provide financial resources to developing country Parties for country-driven activities and programmes, consistent with national priorities and objectives, recognizing that economic and social development and poverty eradication are the first and overriding priorities of developing countries. The Global Environment Facility, as the institutional structure operating the financial mechanism, should provide support:

(a) For projects utilizing the ecosystem approach, without prejudice to differing national needs and priorities which may require the application of approaches such as single-species conservation programmes, in accordance with decision V/6;

(b) As a priority, for projects which:

- (i) Implement the Convention's programme of work on agricultural biodiversity, in accordance with decision V/5, through the timely finalization and implementation of its operational programme on agricultural biodiversity, and through the development and implementation of other relevant operational programmes;
- (ii) Implement the Convention's programme of work on biodiversity of dry and sub-humid lands, in accordance with decision V/23, through the development, review and implementation of its operational programmes, in particular, the operational programme on arid and semi-arid ecosystems;
- (iii) Assist in the implementation of the programme of work on forest biodiversity at the national, subregional and regional levels, and consider the operational objectives of the aforementioned

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programme of work as guidance for funding, in accordance with decision V/4;

(c) For projects which assist with the development and implementation of the International Initiative for the Conservation and Sustainable Use of Pollinators in Agriculture, in accordance with decision V/5;

(d) For capacity-building at the national, subregional and regional level to address the issue of coral bleaching within the context of implementation of the programme of work on marine and coastal biological diversity, in accordance with decision V/3;

(e) For the consultative processes referred to in paragraph 6 of decision V/19, which are aimed at assisting with the preparation of second national reports, taking into account the fact that the Conference of the Parties may develop guidelines for subsequent national reports;

(f) For participation in the clearing-house mechanism of the Convention, in accordance with decision V/14;

(g) For projects that will address the issue of access and benefit-sharing, in accordance with decision V/26;

(h) For projects that incorporate incentive measures that promote the development and implementation of social, economic and legal incentive measures for the conservation and sustainable use of biological diversity, in accordance with decision V/15;

(i) For the implementation of the priority activities identified in the programme of work on Article 8(j) and related provisions, in accordance with decision V/16;

(j) To strengthen capabilities to develop monitoring programmes and suitable indicators for biological diversity, in accordance with decision V/7;

(k) To continue promoting awareness of the Global Taxonomy Initiative in the relevant activities of the Global Environment Facility, such as the Country Dialogue Workshops, and to facilitate capacity-building in taxonomy, including in its Capacity Development Initiative;

(l) For capacity development for education, public awareness and communication in biological diversity at the national and regional levels, in accordance with decision V/17;

(m) For activities to implement the Global Invasive Species Programme, in accordance with decision V/8;

(n) For the implementation of capacity-building measures for developing and implementing national and sectoral plans for the conservation and sustainable use of inland water ecosystems, including comprehensive assessments of the biological diversity of inland waters, and capacity-building programmes for monitoring the implementation of the programme of work and the trends in inland water biological diversity and for information gathering and dissemination among riparian communities.

V/14. Scientific and technical cooperation and the clearing-house mechanism (Article 18)

The Conference of the Parties,

Reaffirming its previous requests to the Global Environment Facility, contained in decisions I/2, II/3, II/6, III/4, III/5, IV/2 and IV/13, to provide support for scientific and technical cooperation and capacity-building in relation to the clearing-house mechanism,

Recalling decision III/4, in which the Conference of the Parties established an informal advisory committee to be constituted and coordinated by the Executive Secretary in a transparent manner, to assist the clearing-house mechanism, and decision IV/2, in which the Conference of the Parties requested that the clearing-house mechanism be continuously assisted in its functioning by the informal advisory committee during and after the pilot phase,

1. Notes the report of the independent review of the pilot phase of the clearing-house mechanism (UNEP/CBD/COP/5/INF/2);

2. Supports the implementation of the strategic plan for the clearing-house mechanism (UNEP/CBD/COP/5/INF/3);

3. Requests the Executive Secretary, in consultation with the informal advisory committee, to monitor and review the operation of the clearing-house mechanism and report to the Conference of the Parties at its sixth meeting on any recommended adjustments to the operation of the clearing-house mechanism or to the strategic plan;

4. Decides that the strategic plan for the clearing-house mechanism shall become a component of the Strategic Plan of the Convention on Biological Diversity;

5. Endorses the longer-term programme of work for the clearing-house mechanism (UNEP/CBD/COP/5/INF/4), recognizing the important role that country partnerships can play in implementing this programme of work;

6. Recommends that Parties and Governments, subject to availability of resources and relevance, undertake as priorities for the biennium 2001-2002 the measures identified in annex I to the present decision;

7. Decides that the informal advisory committee referred to in decision III/4 shall have the following objectives:

(a) Provide advice on matters relating to the clearing-house mechanism and, in particular, on how to improve the effectiveness of the clearing-house mechanism as a mechanism to promote scientific and technical cooperation;

(b) Facilitate the implementation of guidance from the Conference of the Parties concerning the clearing-house mechanism;

(c) Facilitate greater input of Parties into the development of the clearing-house mechanism;



(d) Advise on ways and means to facilitate the development of the clearing-house mechanism network;

(e) Facilitate and encourage cooperation with other relevant international and regional information networks and initiatives;

8. Decides that the continuation and mandate of the informal advisory committee shall be reviewed at the seventh meeting of the Conference of the Parties;

9. Calls upon the Executive Secretary, in consultation with the informal advisory committee, to develop operational procedures for the informal advisory committee, for review at the seventh meeting of the Conference of the Parties, and to make these procedures, as well as the membership, available through the clearing-house mechanism;

10. Requests the Executive Secretary, in consultation with the informal advisory committee and other relevant bodies, and subject to available resources, to undertake the activities identified in annex II to the present decision.

#### Annex I

##### MEASURES TO BE UNDERTAKEN BY PARTIES AND GOVERNMENTS IN THE BIENNIUM 2001-2002, SUBJECT TO AVAILABILITY OF RESOURCES AND RELEVANCE

(a) Establish national directories of scientific institutions and experts working on specific thematic areas of the Convention on Biological Diversity and make these available through the clearing-house mechanism.

(b) Conduct surveys 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 or strengthen clearing-house mechanism national focal points.

(d) 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 biological diversity.

(e) Establish regional or subregional clearing-house mechanism focal points.

(f) Establish national, regional and subregional clearing-house mechanism thematic focal points.

(g) Further develop the clearing-house mechanism to assist developing country Parties and Parties with economies in transition to gain 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.

(h) Consider information providers as primary partners as a way of ensuring that a critical mass of scientific and technical information is made available.

(i) Consider the general public, the private sector, non-government organizations and all levels of government as important target audiences for the clearing-house mechanism.

(j) Develop initiatives to make information available through the clearing-house mechanism more useful for researchers and decision makers.

(k) 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 among the biodiversity-related and the Rio conventions.

(l) Undertake an analysis of the cost-effectiveness of the implementation of the clearing-house mechanism, taking into account investments in institutional, human, financial, technological and informational resources.

#### Annex II

##### ACTIVITIES TO BE UNDERTAKEN BY THE EXECUTIVE SECRETARY, IN CONSULTATION WITH THE INFORMAL ADVISORY COMMITTEE AND OTHER RELEVANT BODIES, SUBJECT TO AVAILABLE RESOURCES

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

(b) Further develop non-Internet-based tools and training packages to assist Parties in their national implementation efforts.

(c) Identify and establish cooperative arrangements with those international thematic focal points that 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 the proposed cooperative arrangements by at least three national focal points;
- (iv) Designation of a specific theme and a defined period of time;
- (v) Selection of one or more thematic focal points for each theme;

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- (vi) Ability to leverage infrastructure;
- (vii) Provision of relevant content;
- (viii) Experience with specific issues;
- (ix) Ability to advance the objectives of the clearing-house mechanism;
- (x) Ability to advance the objectives of other partners;
- (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 for the implementation and management of the clearing-house mechanism at the national, subregional, bio-geographic and regional levels, as appropriate.

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

- (i) Identification by national focal points of national institutions and experts working on the specific theme, including through interlinkages with the rosters of experts in the relevant fields of the Convention on Biological Diversity;
- (ii) Provision of relevant information to the Subsidiary Body on Scientific, Technical and Technological Advice by national focal points;
- (iii) Use of the clearing-house mechanism to gather input to relevant assessments being undertaken by the Subsidiary Body on Scientific, Technical and Technological Advice;
- (iv) Identification of scientific and technical cooperation needs at the national level for the implementation of pilot initiatives.

(f) Propose options for improving ways and means by which the clearing-house mechanism can facilitate access to and transfer of technology.

(g) Develop a list of best practices and identify potential functions to be 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 affecting the use of the clearing-house mechanism, including the development or consolidation of tools and services.

(j) Develop a publicly accessible global electronic platform for scientific and technical cooperation in biodiversity on the Internet matching the demands and needs of Parties in accordance with Article 18 of the Convention.

(k) Encourage the establishment and maintenance of mirror sites of the Convention's website, within the other United Nations regions, as appropriate, in order to improve access to Internet-based information.

V/15. Incentive measures

The Conference of the Parties,

Acknowledging the importance of incentive measures in achieving conservation and sustainable use of the components of biodiversity,

Recognizing that biodiversity provides global services to humankind that are not captured and adequately recognized by current economic relations, patterns and policies,

1. Establishes a programme of work that promotes the development and implementation of social, economic and legal incentive measures for the conservation and sustainable use of biological diversity, in synergy with specific programmes of work, in order to:

(a) Support Parties, Governments and organizations in developing practical policies and projects;

(b) Develop practical guidance to the financial mechanism for effective support and prioritization of these policies and projects;

2. Decides that the activities of the programme of work should result in the following:

(a) The assessment of representative existing incentive measures, review of case-studies, identification of new opportunities for incentive measures, and dissemination of information, through the clearing-house mechanism and other means, as appropriate;

(b) The development of methods to promote information on biodiversity in consumer decisions, for example through ecolabelling, if appropriate;

(c) The assessment, as appropriate and applicable to the circumstances of Parties, of the values of biodiversity, in order to internalize better these values in public policy initiatives and private-sector decisions;

(d) A consideration of biodiversity concerns in liability schemes;

(e) The creation of incentives for integration of biodiversity concerns in all sectors;

3. Requests the Executive Secretary to collaborate with relevant organizations, such as the Food and Agriculture Organization of the United Nations, the Organisation for Economic Cooperation and Development, the United Nations Conference on Trade and Development, the United Nations Development Programme, the United Nations Environment Programme, and IUCN-The World Conservation Union, in order to engage in a coordinated effort, and undertake through such an effort, as a first phase:

(a) To gather and disseminate 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, where appropriate, 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, through case-studies and lessons learned, and consider how these ways and means may be applied;

(c) To elaborate proposals for the design and implementation of incentive measures, for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at its sixth or seventh meeting and by the Conference of the Parties at its sixth meeting;

4. Decides to integrate actions on incentives in thematic work programmes and ensure synergy with activities on sustainable use, noting that incentive measures are essential elements in developing effective approaches to conservation and sustainable use of biological diversity especially at the level of local communities;

5. Requests the Executive Secretary to promote coordinated action on incentives with other international biodiversity-related agreements and relevant organizations, noting specifically that the joint work plan of the Convention on Biological Diversity and the Convention on Wetlands for the period 2000-2001 (UNEP/CBD/SBSTTA/5/INF/12) includes consideration of incentive measures;

6. Urges Parties and other Governments to explore possible ways and means by which incentive measures promoted through the Kyoto Protocol under the United Nations Framework Convention on Climate Change can support the objectives of the Convention on Biological Diversity.

V/16. Article 8(j) and related provisions

The Conference of Parties,

Recalling its decision IV/9,

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

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,

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,

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

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,

Recognizing the role that the International Indigenous Forum on Biodiversity has played since the third meeting of the Conference of the Parties in addressing the Conference of the Parties on the implementation of Article 8(j) and related provisions,

Reaffirming 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,

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,

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

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

2. Decides to implement the programme of work giving priority to tasks 1, 2, 4, 5, 8, 9 and 11, as well as 7 and 12, which shall be initiated following completion of tasks 5, 9 and 11;

3. Urges Parties and Governments in collaboration with relevant organizations, subject to their national legislation, to promote and implement this programme of work, and to integrate the tasks identified into their ongoing programmes as appropriate to national circumstances, taking into account the identified collaboration opportunities;

4. Requests Parties, 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;

5. Encourages the participation of indigenous and local communities in the work of the Ad Hoc Open-ended Working Group on Access and Benefit-sharing on the development of guidelines and other approaches to ensure the respect, preservation and maintenance of knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity;

6. Takes into account the importance of 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 programme of work;

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

8. Requests the Executive Secretary to facilitate the integration of the relevant tasks of the programme of work in the future elaboration of the thematic programmes of the Convention on Biological Diversity and provide a report on the progress of the thematic programmes to the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity;

9. 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 priority tasks of its programme of work according to reports provided by the Executive Secretary, and the Parties to the meeting of the Working Group and recommend further action on the basis of this review. The Working Group should further explore ways for increased participation by indigenous and local communities in the thematic programmes of work of the Convention on Biological Diversity. The Working Group should report to the Conference of the Parties at its sixth meeting;



10. Requests Parties, 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;

11. Invites Parties and Governments to support the participation of the International Indigenous Forum on Biodiversity, as well as relevant organizations representing indigenous and local communities, in advising the Conference of the Parties on the implementation of Article 8(j) and related provisions;

12. Urges Parties and 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) 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 issues related to 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, with direct participation and responsibility of indigenous and local communities through their appropriate focal points;

(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 that contribute to the preservation of traditional knowledge, innovations and practices, including through their recording where appropriate, and that support control and decision-making by indigenous and local communities over the sharing of such knowledge, innovation and practices;

13. 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 practices of indigenous and local communities;

14. Recognizes the potential 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 (UNEP/CBD/COP/5/4, annex);

15. Invites Parties and 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;

16. 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;

17. Requests Parties to support the development of 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 strengthening legislation, customary practices and traditional systems of resource management, such as the protection of traditional knowledge against unauthorized use;

18. Invites Parties and Governments to increase the participation of representatives of indigenous and local community organizations in official delegations to meetings held under the Convention on Biological Diversity;

19. 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, to fully utilize 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;

20. Further requests Parties and international financial institutions to explore ways of providing the necessary funding for these activities.

Annex

PROGRAMME OF WORK ON THE IMPLEMENTATION OF ARTICLE 8(j) AND RELATED  
PROVISIONS OF THE CONVENTION ON BIOLOGICAL DIVERSITY

Objectives

The objective of this programme of work is to promote within 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. Full and effective participation of women of indigenous and local communities in all activities of the programme of work.
2. Traditional knowledge should be valued, given the same respect and considered as useful and necessary as other forms of knowledge.
3. 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.
4. 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.
5. Access to traditional knowledge, innovations and practices of indigenous and local communities should be subject to prior informed consent or prior informed approval from the holders of such knowledge, innovations and practices.

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

Element 1. Participatory mechanisms for indigenous and local communities

Task 1. Parties to take measures to enhance and strengthen the capacity of indigenous and local communities to be effectively involved in decision-making related to the use of their traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity subject to their prior informed approval and effective involvement.

Task 2. Parties to develop appropriate mechanisms, guidelines, legislation or other 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 diversity 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 4. Parties to develop, as appropriate, mechanisms for promoting the full and effective participation of indigenous and local communities with specific provisions for the full, active and effective participation of women 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 biological diversity;
- (d) Promote the exchange of experiences and knowledge;
- (e) Promote culturally appropriate and gender specific ways in which to document and preserve women's knowledge of 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, a plan and a timetable for its preparation, based, inter alia, on advice submitted by Parties, Governments, indigenous and local communities and other relevant organizations regarding sources and availability of information on these matters. Parties, 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 4. Equitable sharing of benefits

Task 7. Based on tasks 1, 2 and 4, the Working Group to develop guidelines for the development of mechanisms, legislation or other appropriate initiatives to ensure: (i) that indigenous and local communities obtain 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 approval of the indigenous and local communities; (iii) advancement of the identification of the obligations of countries of origin, as well as Parties and Governments 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 with indigenous and local communities, guidelines or 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.

Element 7. Legal elements

Task 11. The Working Group to assess existing sub-national, as appropriate, 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 identifying synergies between these instruments and the objectives of Article 8(j).

Task 12. The Working Group to develop guidelines that will assist Parties and Governments in the development of legislation or other mechanisms, as appropriate, to implement Article 8(j) and its related provisions (which could include sui generis systems), and definitions of relevant key terms and concepts in Article 8(j) and related provisions at international, regional and national levels, that recognize, safeguard and fully guarantee the rights of indigenous and local communities over their traditional knowledge, innovations and practices, within the context of the Convention.

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

Element 1. Participatory mechanisms for indigenous and local communities

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

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).

Task 13. The Ad Hoc Working Group to 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. The Ad Hoc Working Group to 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. The Ad Hoc Working Group to 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. The Executive Secretary to 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 10. The Ad Hoc Working Group to develop standards and guidelines for the reporting and prevention of unlawful appropriation of traditional knowledge and related genetic resources.

Task 17. The Executive Secretary to 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

In developing and implementing the programme of work, the Executive Secretary shall solicit information from Parties, Governments, indigenous and local communities and other relevant organizations, and consult with the liaison group on Article 8(j) and related provisions.

The Executive Secretary to develop, in consultation with indigenous and local communities, Parties, 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 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.

This programme of work shall, as relevant, take into account the work of the Ad Hoc Open-ended Working Group on Access and Benefit-sharing, and, as far as possible, be carried out in collaboration with other relevant organizations, including the World Intellectual Property Organization (WIPO).

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

V/17. Education and public awareness

The Conference of the Parties

1. Takes note of the information provided by the Executive Secretary with regard to education and public awareness (UNEP/CBD/COP/5/13, section IV);

2. Requests the Executive Secretary, in cooperation with the United Nations Educational, Cultural and Scientific Organization, to convene a consultative working group of experts, including the United Nations Environment Programme, the World Bank, the United Nations Institute for Training and Research, the Commission for Education and Communication of IUCN, the World-Wide Fund for Nature, representatives of Parties and other relevant bodies to further advance and, in particular, to identify priority activities for the proposed global initiative on biological diversity education and public awareness;

3. Decides that the working group should take into account priorities developed by the Conference of the Parties for its work programme, and, when approved by the Conference of the Parties, priorities identified in the strategic plan for the Convention;

4. Invites the United Nations Educational, Scientific and Cultural Organization, through its education programmes, to actively integrate biological diversity into all levels of formal education systems as a component of the development of the global initiative;

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

6. Invites Parties, Governments, organizations and institutions to support capacity-building for education and communication in biological diversity as part of their national biodiversity strategies and action plans, taking into account the global initiative;

7. Requests the Executive Secretary to:

(a) Further develop the public information and outreach activities of the Secretariat, including through the use of the clearing-house mechanism to raise awareness of biological diversity issues amongst all sectors of society, including indigenous and local communities;

(b) Designate a theme each year for the International Day for Biological Diversity and prepare background information to be placed on the clearing-house mechanism;

(c) Consult the United Nations Secretariat on the feasibility of changing the designated date of the International Day for Biological Diversity to 22 May and provide advice on this matter to the Parties by February 2001;

(d) Report on progress achieved in developing the global initiative to the Conference of the Parties at its sixth meeting.

V/18. Impact assessment, liability and redress

The Conference of the Parties

I. IMPACT ASSESSMENT

1. Invites Parties, Governments and other relevant organizations:

(a) To implement paragraph 1 of Article 14 of the Convention on Biological Diversity in conjunction with other components of the Convention and to integrate environmental impact assessment into the work programmes on thematic areas, including the biological diversity of inland water ecosystems, marine and coastal biological diversity, forest biological diversity, agricultural biological diversity, and the biological diversity of dry and sub-humid lands, 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 when carrying out environmental impact assessments;

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

(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 using appropriate mechanisms, such as the establishment of committees, at the appropriate level;

(e) To organize expert meetings, workshops and seminars, as well as training, educational and public awareness programmes and exchange programmes, and carry out pilot environmental impact assessment projects, in order to promote the development of local expertise in methodologies, techniques and procedures;

2. Encourages Parties, Governments and relevant organizations:

(a) To use strategic environmental assessments to assess not only the impact of individual projects, but also their cumulative and global effects, incorporating biological diversity considerations at the decision-making and/or environmental planning level;

(b) 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 information on practices, systems, mechanisms and experiences in the area of strategic environmental assessment and impact assessment;

4. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to further develop guidelines for incorporating biodiversity-related issues into legislation and/or processes on strategic environmental assessment impact assessment, in collaboration with the scientific community, the private sector, indigenous and local communities,

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non-governmental organizations and relevant organizations at the international, regional, subregional and national levels, such as the Scientific and Technical Review Panel of the Convention on Wetlands, the Scientific Council of the Convention on Migratory Species, DIVERSITAS, IUCN-The World Conservation Union, the International Association for Impact Assessment and the United Nations Environment Programme, as well as the Parties, and further elaborate the application of the precautionary approach and the ecosystem approach, taking into account needs for capacity-building, with a view to completion by the sixth meeting of the Conference of the Parties;

5. Also requests the Executive Secretary:

(a) To disseminate case-studies received;

(b) To renew the call for further case-studies, including case-studies on negative impacts and, in particular, on impact assessments that take the ecosystem approach into account;

(c) To compile and evaluate existing guidelines, procedures and provisions for environmental impact assessment;

(d) To 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 the regional, national and local levels;

## II. LIABILITY AND REDRESS

6. Renews the invitation to Parties, Governments, and relevant international organizations, contained in its decision IV/10 C, paragraph 8, to provide the Executive Secretary with information on national, international and regional measures and agreements on liability and redress applicable to damage to biological diversity, acknowledging that some Parties, Governments and organizations have already provided the Executive Secretary with such information;

7. Requests the Executive Secretary to update the synthesis report submitted to the fifth meeting of the Conference of the Parties (UNEP/CBD/COP/5/16) to include information contained in further submissions by Parties, Governments and relevant international organizations, taking into account other relevant information including, in particular, information on the work of the International Law Commission and on the development and application of liability regimes under other multilateral instruments, including the Antarctic Treaty, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, and the Cartagena Protocol on Biosafety, for the consideration of the Conference of the Parties at its sixth meeting;

8. Welcomes the offer of the Government of France to organize a workshop on liability and redress in the context of the Convention on Biological Diversity;

9. Decides to consider at its sixth meeting a process for reviewing paragraph 2 of Article 14, including the establishment of an ad hoc technical expert group, taking into account consideration of these issues within the

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framework of the Cartagena Protocol on Biosafety, and the outcome of the workshop referred to in paragraph 8 of the present decision.

V/19. National reporting

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 the note by the Executive Secretary on national reporting (UNEP/CBD/COP/5/13/Add.2) as the recommended format for future national reports to be submitted by Parties in accordance with Article 26 of the Convention;

3. Requests the Executive Secretary to further develop this format to incorporate the views expressed by Parties and further questions arising from the decisions of its fifth meeting and to make the revised format available to Parties by September 2000;

4. Is of the view that national reports developed in this format will help Parties to measure the state of national implementation of the Convention and to review national priorities and actions;

5. Requests Parties to submit their next national report:

(a) By 15 May 2001;

(b) In an official 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;

6. 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;

7. Also invites Parties to prepare detailed thematic reports on one or more of the items for in-depth consideration at its ordinary meetings, thereby providing national contributions to the work of the Conference of Parties and its subsidiary bodies;

8. 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 the note by the Executive Secretary on national reporting;

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

(c) In an official language of the Conference of the Parties;

(d) In both hard copy and electronic format;

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9. 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 and implementation 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, with a view to simplifying reporting procedures and reducing the burden of reporting on Parties, and report on progress to the Conference of the Parties at its sixth meeting;

10. 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.

V/20. Operations of the Convention

The Conference of the Parties

I. THE 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 years. 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 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;

3. 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;

4. Decides to review its previous decisions periodically in order to assess their status of implementation;

5. Decides to amend its rules of procedure:

(a) By replacing the first two sentences of paragraph 1 of rule 21 with the following sentences:

"At the commencement of the first session of each ordinary meeting a President and ten Vice-Presidents, one of whom shall act as Rapporteur, are to be elected from among the representatives of the Parties. They shall serve as the bureau of the Conference of the Parties. The term of office of the President shall commence straight away and the terms of office of the Vice-Presidents shall commence upon the closure of the meeting at which they are elected."; and

(b) By replacing the first two sentences of paragraph 2 of rule 21 with the following sentences:

"The President shall remain in office until a new President is elected at the commencement of the next ordinary meeting and the Vice-Presidents shall remain in office until the closure of the next ordinary meeting. They shall serve as the bureau of any extraordinary meeting held during their term of office and

provide guidance to the Secretariat with regard to preparations for, and conduct of, meetings of the Conference of the Parties."; and

(c) By replacing the words "a President for the meeting" in rule 25 with "a new President";

6. Decides to review the effectiveness of the changes referred to in paragraph 5 of the present decision, in the light of experience, at its seventh meeting;

7. Decides to revise its procedures for decision-making regarding administrative and financial matters with a view to ensuring:

- (a) Transparency;
- (b) Participation; and
- (c) Full consideration of its other decisions;

8. 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:

- (a) Is transparent;
- (b) Allows participation; and
- (c) Allows full consideration of its other decisions;

9. 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 in each;

## II. STRATEGIC PLAN FOR THE CONVENTION

10. 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;

11. Decides that the Strategic Plan shall be based on the longer-term programmes of work of the Conference of the Parties and of the Subsidiary Body on Scientific, Technical and Technological Advice, and that the Strategic Plan shall provide strategic and operational guidance for the implementation of these programmes of work;

12. Decides that the Strategic Plan will initially cover the period 2002-2010;

13. 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 operational goals shall relate to the following three main areas of work:

- (a) The thematic programmes;

- (b) Cross-cutting issues and initiatives; and
- (c) The implementation of the provisions of the Convention;

14. Decides that these operational goals shall reflect levels of elaboration, progress of development, stages of implementation, state of knowledge and capacities, and degrees of cooperation, with respect to the three main areas of work;

15. Decides that within each of these goals, the Strategic Plan shall identify, as far as possible, the following parameters:

- (a) Planned activities;
- (b) The expected products;
- (c) The timing of each of these activities and products;
- (d) The actors carrying out these activities and cooperation with relevant organizations;
- (e) The mechanisms used to realize and/or support the goals and activities, or to generate the expected products; and
- (f) Financial, human-resource and other capacity requirements;

16. Requests the Executive Secretary to develop the Strategic Plan, in accordance with the above parameters, and including options where appropriate, and to engage in a participatory process that ensures:

- (a) Incorporation of the views of Parties and the Bureau of the Conference of the Parties;
- (b) Consideration by the Subsidiary Body on Scientific, Technical and Technological Advice and its Bureau, and other relevant subsidiary bodies of the Convention on matters relevant to their mandates; and
- (c) Input from other interested countries and organizations;

with a view to preparing a full draft Strategic Plan in time for consideration and adoption by the Conference of the Parties at its sixth meeting;

### III. OPERATIONS OF THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE

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

18. 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;

19. 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;

20. 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;

21. 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 decides 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) Within the available budgetary resources, 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;"

22. Confirms that the Subsidiary Body on Scientific, Technical and Technological Advice, within the available budgetary resources for matters related to its mandate, may make requests to the Executive Secretary and utilize the clearing-house mechanism, and other appropriate means, to assist in the preparation of its meetings;

23. 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;

24. 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, allowing flexibility in timing, and agrees that the Subsidiary Body on Scientific, Technical and Technological Advice may, if necessary, adjust the timing of its consideration of issues;

25. Recognizes that there is a need to improve the quality of the scientific, technical and technological advice provided to the Conference of the Parties, and to undertake sound scientific and technical assessments, including in-depth assessments of the state of knowledge on issues critical for the implementation of the Convention;

26. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to continue to improve the way it conducts its scientific, technical and technological work in order to improve the quality of its advice to the Conference of the Parties;

27. Decides that, in its scientific, technical and technological work and, in particular, scientific assessments, the Convention should make use of existing programmes and activities of the Convention or of other bodies and of expertise made available by Parties;



28. Notes the report of the brainstorming meeting on scientific assessment (UNEP/CBD/COP/5/INF/1), and refers it to the Subsidiary Body on Scientific, Technical and Technological Advice for consideration and, where appropriate, use in its work;

29. Requests the Subsidiary Body on Scientific, Technical and Technological Advice:

(a) To identify and, where needed, further develop, procedures and methods to undertake or participate in scientific assessments, or make use of existing ones, taking into account considerations of participation, effectiveness and costs;

(b) To undertake a limited number of pilot scientific assessment projects, in preparation for the sixth meeting of the Conference of the Parties, and to invite, among others, the Millennium Ecosystem Assessment to work closely together with the Subsidiary Body in this area; and to facilitate and support the implementation of these projects; and, at an appropriate stage, to carry out an evaluation of them;

(c) To develop further its methodologies for scientific assessment, and to provide advice to Parties on scientific assessment design and implementation;

(d) To identify and regularly update, within the context of its programme of work, assessment priorities and information needs;

(e) To review the implementation of decision II/1 relating to the Global Biodiversity Outlook and provide the results of that review to the Conference of the Parties at its sixth meeting, together with advice on means to enhance implementation and/or any desirable amendments to the decision;

30. Notes the proposed uniform methodology for the use of the roster of experts, set out in annex I to recommendation V/14 of the Subsidiary Body on Scientific, Technical and Technological Advice, and refers this to the Subsidiary Body and the Executive Secretary for consideration and, where appropriate, use in their work;

31. 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;

#### IV. OTHER MATTERS

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

33. Recognizes that activities at the subregional and regional levels, 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 participate actively in suitable subregional and regional activities, as well as on the Executive Secretary, subject to necessary voluntary contributions, to facilitate the involvement in such subregional and regional activities of developing country Parties, in particular the least developed and small island developing States, and other Parties with economies in transition;

34. Requests the Executive Secretary to continue enhancing communication with the Parties through the 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, and 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;

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

36. 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, on national reports by Parties;

#### V. IMPLEMENTATION

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

38. Decides to hold an open-ended inter-sessional meeting, to assist with preparations for the sixth meeting of the Conference of the Parties. The meeting will be of three days duration and is to be held in conjunction with an existing meeting. The meeting will consider, and to the extent possible develop draft elements of decisions on, the following topics:

(a) Preparation of the Strategic Plan for the Convention;

(b) The second national reports; and

(c) Means to support implementation of the Convention, in particular, implementation of priority actions in national biodiversity strategies and action plans;

39. Decides to review at its sixth meeting, in the light of this experience, the role of inter-sessional processes in enhancing implementation of the Convention;

40. Decides to enhance further the functions of subregional and regional processes in preparing for meetings under the Convention and in

promoting the implementation of the Convention at the regional, subregional and national levels;

41. Requests the Executive Secretary to provide an overview of existing mechanisms and processes for review of national implementation of environmental instruments, and invites Parties to undertake, on a voluntary basis, a review of national programmes and needs related to the implementation of the Convention and, if appropriate, to inform the Executive Secretary accordingly.

V/21. Cooperation with other bodies

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. Invites the Executive Secretary to strengthen the cooperation with the United Nations Framework Convention on Climate Change, including its Kyoto Protocol, on relevant issues such as dry and sub-humid lands, forest biological diversity, coral reefs, and incentive measures;
4. Welcomes and endorses the second joint work plan (2000-2001) between the Convention on Biological Diversity and the Ramsar Convention on Wetlands (UNEP/CBD/SBSTTA/5/INF/12), and commends it as a useful example of future cooperation between the Convention on Biological Diversity and other environmental conventions;
5. 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;
6. Recalling decision III/21, takes note of the United Nations Environment Programme/Convention on Migratory Species study on the complementarities between the Convention on Migratory Species and the Convention on Biological Diversity (UNEP/CBD/COP/5/INF/28);
7. Requests the Executive Secretary to take the study into consideration and, in collaboration with the Secretariat of the Convention on Migratory Species, to develop a proposal on how migratory species could be integrated into the work programme of the Convention on Biological Diversity, and the role the Convention on Migratory Species could play in the implementation of the Convention on Biological Diversity with regard to, inter alia, the ecosystem approach, the Global Taxonomy Initiative, indicators, assessments and monitoring, protected areas, public education and awareness, and sustainable use, including tourism;
8. Requests the Executive Secretary to submit the proposal referred to in paragraph 7 above for review by the Subsidiary Body on Scientific, Technical and Technological Advice prior to the sixth meeting of the Conference of the Parties and requests the Subsidiary Body to provide advice to the Conference of the Parties at its sixth meeting;
9. Takes note of the International Biodiversity Observation Year of DIVERSITAS, to take place from 2001 to 2002, and requests the Executive Secretary and invites Parties, 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;

10. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to identify opportunities for collaboration with the Millennium Ecosystem Assessment in contributing to the assessment needs of the Convention, in particular through the pilot scientific assessment projects referred to in paragraph 29 (b) of decision V/20;

11. Decides to accept the invitation of the Millennium Ecosystem Assessment to be represented in the Executive Committee, nominates for this purpose the Chair of the Subsidiary Body on Scientific, Technical and Technological Advice and the Executive Secretary, and directs that the Subsidiary Body on Scientific, Technical and Technological Advice be kept informed on developments and progress;

12. Recognizes the importance of the Global Biodiversity Forum as a mechanism for building understanding and capacity in implementing the Convention, and encourages support of the Global Biodiversity Forum process.

V/22. Budget for the programme of work for the biennium 2001-2002

The Conference of the Parties,

Having considered the proposed budget for the biennium 2001-2002 submitted by the Executive Secretary (UNEP/CBD/COP/5/18 and Add.1),

Noting the commendable work done by the Executive Secretary and his staff in the delivery of the programme of work for biennium 1999-2000,

Noting with appreciation the annual contribution to the rental of the premises of the Secretariat, as well as the annual contribution of US\$ 1 million, by the host Government for the period 1996-2000, which was used to offset planned expenditures and urging that this be continued for the biennium 2001-2002,

Noting also that there is wide support for the implementation of the Convention's work programme among Governments, international organizations, non-governmental organizations, and the private sector, through the provision of expertise, information and human and financial resources,

1. Approves a programme budget of US\$ 8,594,000 for the year 2001 and of US\$ 10,049,900 for the year 2002, for the purposes listed in table 1 below;

2. Adopts the indicative scale of contributions for 2001 and 2002 contained in the annex to the present decision;

3. Approves the staffing table for the programme budget contained in table 2 below and requests that all staff positions be filled expeditiously;

4. Approves a drawing of US\$ 5,203,200 from the unspent balances or contributions ("carry-over") from previous financial periods to cover part of the 2001-2002 budget;

5. Authorizes the Executive Secretary to 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 1 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;

6. Notes with concern that a number of Parties have not paid their contributions to the core budget (BY Trust Fund) for previous years, which are due on 1 January of each year in accordance with paragraph 4 of the financial rules, and the late payment of contributions to the core budget by Parties during each calendar year of a biennium, which have contributed to the significant carry-over from one biennium to the next, and, in the event that there is no improvement in the payment of contributions by Parties, invites the Executive Secretary to submit proposals for promoting full and timely payment of contributions by Parties for the consideration and review of the seventh meeting of the Conference of the Parties;

7. Urges Parties that have still not paid their contributions to the core budget (BY Trust Fund) to do so without delay, and requests the Executive Secretary to publish and regularly update information on the status of contributions of Parties to the Convention's trust funds (BY, BE, BZ);

/...

8. Decides, with regard to contributions due from 1 January 2001 onwards, that Parties whose contributions are in arrears for two or more years will be allowed to attend the meetings of the Convention's bodies with a maximum of two delegates until their arrears have been cleared;

9. Further decides that, with regard to contributions due from 1 January 2001 onwards, Parties that are not least developed countries or small island developing States whose contributions are in arrears for two or more years, will not receive funding from the Secretariat to attend meetings of the Convention's bodies until their arrears have been cleared;

10. Authorizes the Executive Secretary to enter into commitments up to the level of the approved budget, drawing on available cash resources, including unspent balances, contributions from previous financial periods and miscellaneous income;

11. Decides also to fund, upon request, from the core budget (BY) the participation of members of the bureaux of the Conference of the Parties, Subsidiary Body on Scientific Technical and Technological Advice and the Intergovernmental Committee on the Cartagena Protocol on Biosafety at the inter-sessional meetings of the respective bureaux;

12. Takes note of the decisions of the Bureau of the fourth meeting of the Conference of the Parties authorizing the Executive Secretary to utilize savings, unspent balances from previous financial periods and miscellaneous income in the amount of US\$ 1,565,000 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 and requests the Executive Secretary, in consultation with the Bureau, to monitor the availability of voluntary contributions to the BZ Trust Fund in the event of any shortfall;

13. Decides that the 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;

14. Invites all Parties to the Convention to note that contributions to the core budget (BY) are due on 1 January of the year in which the these contributions have been budgeted for, and to pay them promptly, and urges Parties, in a position to do so, to pay by 1 October 2000 for the calendar year 2001 and by 1 October 2001 for the calendar year 2002 the contributions required to finance expenditures approved under paragraph 1 above, as offset by the amount in paragraph 4, and, in this regard, requests that Parties be notified of the amount of their contributions by 1 August of the year preceding the year in which the contributions are due;

15. 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 trust funds (BY, BE, BZ) of the Convention;

16. 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 urges Parties to make contributions to this Fund;

17. Takes note of the funding estimates for the special voluntary Trust Fund (BZ) for facilitating participation of developing country Parties, in particular the least developed and the small island developing States amongst them, and other Parties with economies in transition, for the biennium 2001-2002, as specified by the Executive Secretary and included in table 4 below, and urges Parties to make contributions to this Fund;

18. Authorizes the Executive Secretary, in consultation with the Bureau of the Conference of the Parties, to adjust the servicing of the programme of the work, including postponement of meetings, if sufficient resources are not available to the Secretariat in a timely fashion;

19. Requests the Executive Secretary to prepare and submit a budget for the programme of work for the biennium 2003-2004 for the sixth meeting of the Conference of the Parties, and report on income and budget performance as well as any adjustments made to the Convention budget for the biennium 2001-2002;

20. Instructs 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, and taking into account United Nations rules and regulations. Special attention should be given to possibilities of creating synergies with relevant, existing work programmes or activities that are being implemented within the framework of other international organizations;

21. Requests the President of the Conference of the Parties to consult with the Secretary-General of the United Nations on an assessment of the level of the post of the Executive Secretary of the Convention and report to the Bureau of the Conference of the Parties, taking into account paragraph 1 of the Administrative Arrangements endorsed in decision IV/17.



Table 1

BIENNIUM BUDGET OF THE TRUST FUND FOR THE CONVENTION ON BIOLOGICAL DIVERSITY  
2001-2002  
(thousands of United States dollars)

<u>Expenditures</u>	<u>2001</u>	<u>2002</u>
I. <u>Programmes</u>		
Executive direction and management	529.7	547.6
Scientific technical and technological matters	963.9	1,014.1
1. Social, economic and legal matters	850.7	1,178.2
2. Implementation and outreach	1,527.7	1,587.5
Biosafety	830.6	870.9
Resource management and conference services	2,902.7	3,695.4
3. Sub-total (I)	7,605.3	8,893.7
II. Programme support charge 13%	988.7	1,156.2
Total budget (I + II)	8,594.0	10,049.9
Savings from previous years (surplus)	2,000.0	3,203.2
Net total (Amount to be paid by the Parties)	6,594.0	6,846.7

Table 2

SECRETARIAT-WIDE STAFFING REQUIREMENTS FROM THE CORE BUDGET\*

	<u>2001</u>	<u>2002</u>
A. Professional category		
D-2	1	1
D-1	3	3
P-5	3	3
P-4	11	11
P-3	13	13
P-2	2	2
Total Professional category	33	33
B. Total General Service category	23	23
TOTAL (A+B)	56	56

\* The P-4 Fund management post funded from the OTL will be subject to reclassification to P-5 in 2001-2002.

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)

<b>I.</b>	<b><u>Description</u></b>	2001	2002
<b>A.</b>	<b><u>Meetings/workshops</u></b>		
	<b>Executive direction and management</b>		
	Regional meetings for COP-6 (4)	0.0	100.0
	<b>Scientific, technical and technological matters</b>		
	Regional workshops (5)	200.0	300.0
	Advisory group meetings	30.0	30.0
	Meetings of ad hoc technical experts (6)	210.0	210.0
	<b>Implementation and outreach</b>		
	Workshops on additional financial resources	100.0	100.0
	Regional workshops on the clearing-house mechanism	100.0	100.0
	CHM advisory committee	30.0	30.0
	<b>Biosafety</b>		
	Regional meetings for the Biosafety Protocol	100.0	100.0
	ICCP technical expert meetings (4)	140.0	140.0
	<b>Social, economic and legal matters</b>		
	Workshop on sustainable use and tourism	100.0	100.0
	Panel of Experts on Access and Benefit-sharing	230.0	0.0
<b>B.</b>	<b><u>Staff</u></b>		
	Taxonomy Programme Officer (Australia/Sweden)	100.0	100.0
	Agricultural Biodiversity Programme Officer (FAO)	110.0	110.0
	Senior Programme Officer (Netherlands)	127.4	120.0
<b>C.</b>	<b><u>Travel</u></b>		
	Travel of COP President	7.0	7.0
	Travel of SBSTTA Chair	7.0	7.0
<b>D.</b>	<b><u>Consultants</u></b>		
	Ecosystem evaluation and assessment guidelines	15.0	15.0
	Clearing-house mechanism	15.0	15.0
<b>E.</b>	<b><u>Sub-contracts</u></b>		
	Financial resources database and commissioned studies	33.0	0.0
	Independent review of the financial mechanism	150.0	0.0
	Global Biodiversity Outlook	100.0	100.0
	Global Taxonomy Initiative	100.0	50.0
	Pilot phase – assessments	100.0	0.0
	Clearing-house mechanism	50.0	50.0
<b>F.</b>	<b><u>Fellowships</u></b>	100.0	100.0
	<b><u>Subtotal I</u></b>	2,254.4	1,884.0
<b>II</b>	<b><u>Programme support costs (13%)</u></b>	293.1	244.9
	<b>TOTAL (I+II)</b>	2,547.5	2,128.9

Table 4

SPECIAL VOLUNTARY TRUST FUND (BZ) FOR FACILITATING PARTICIPATION OF PARTIES  
IN THE CONVENTION PROCESS FOR THE BIENNIUM 2001-2002(\*)  
(thousands of United States dollars)

	<u>2001</u>	<u>2002</u>
<b>I. <u>Meetings</u></b>		
Sixth meeting of the Conference of the Parties .....	0.0	761.8
Regional meetings for the Conference of the Parties .....	0.0	329.4
Subsidiary Body on Scientific, Technical and Technological Advice .....	483.6	483.6
Inter-Sessional Meeting on the Operations of the Convention.....	483.6	0.0
Intergovernmental Committee on the Cartagena Protocol on Biosafety.....	483.6	483.6
Ad Hoc Working Group on Access and Benefit-sharing ...	0.0	105.8
Ad Hoc Working Group on Article 8(j).....	0.0	480.7
Regional meetings for the Biosafety Protocol.....	329.4	0.0
Subtotal I	1,780.2	2,644.9
<b>II. Programme support costs (13%)</b>	231.4	343.8
<b>TOTAL (I+II)</b>	2,011.6	2,988.7

\* Developing country Parties, in particular the least developed and small island developing States among them, and other Parties with economies in transition.

Annex

SCALE OF CONTRIBUTIONS TO THE TRUST FUND FOR THE CONVENTION ON  
BIOLOGICAL DIVERSITY FOR 2001-2002

Member Country	UN scale of assessments 2000 (per cent)	Scale with 25 per cent ceiling, no LDC paying more than 0.01 % (per cent)	Contributions per 1 Jan. 2001 US\$	UN scale of assessments 2000 (per cent)	Scale with 25 per cent ceiling, no LDC paying more than 0.01 % (per cent)	Contributions as per 1 Jan. 2002 US\$	Total contributions 2001-2002 US\$
Albania	0.003	0.00400	263	0.003	0.00400	274	537
Algeria	0.086	0.11452	7,552	0.086	0.11452	7,841	15,393
Angola	0.010	0.01332	878	0.010	0.01332	912	1,790
Antigua and Barbuda	0.002	0.00266	176	0.002	0.00266	182	358
Argentina	1.103	1.46883	96,855	1.103	1.46883	100,566	197,421
Armenia	0.006	0.00799	527	0.006	0.00799	547	1,074
Australia	1.483	1.97486	130,223	1.483	1.97486	135,213	265,435
Austria	0.942	1.25443	82,717	0.942	1.25443	85,887	168,604
Bahamas	0.015	0.01998	1,317	0.015	0.01998	1,368	2,685
Bahrain	0.017	0.02264	1,493	0.017	0.02264	1,550	3,043
Bangladesh	0.010	0.01332	878	0.010	0.01332	912	1,790
Barbados	0.008	0.01065	702	0.008	0.01065	729	1,432
Belarus	0.057	0.07591	5,005	0.057	0.07591	5,197	10,202
Belgium	1.104	1.47016	96,942	1.104	1.47016	100,658	197,600
Belize	0.001	0.00133	88	0.001	0.00133	91	179
Benin	0.002	0.00266	176	0.002	0.00266	182	358
Bhutan	0.001	0.00133	88	0.001	0.00133	91	179
Bolivia	0.007	0.00932	615	0.007	0.00932	638	1,253
Botswana	0.010	0.01332	878	0.010	0.01332	912	1,790
Brazil	1.471	1.95888	129,169	1.471	1.95888	134,119	263,288
Bulgaria	0.011	0.01465	966	0.011	0.01465	1,003	1,969
Burkina Faso	0.002	0.00266	176	0.002	0.00266	182	358
Burundi	0.001	0.00133	88	0.001	0.00133	91	179
Cambodia	0.001	0.00133	88	0.001	0.00133	91	179
Cameroon	0.013	0.01731	1,142	0.013	0.01731	1,185	2,327
Canada	2.732	3.63812	239,897	2.732	3.63812	249,091	488,988
Cape Verde	0.002	0.00266	176	0.002	0.00266	182	358
Central African Republic	0.001	0.00133	88	0.001	0.00133	91	179
Chad	0.001	0.00133	88	0.001	0.00133	91	179
Chile	0.036	0.04794	3,161	0.036	0.04794	3,282	6,443
China	0.995	1.32501	87,371	0.995	1.32501	90,719	178,091
Colombia	0.109	0.14515	9,571	0.109	0.14515	9,938	19,509
Comoros	0.001	0.00133	88	0.001	0.00133	91	179
Congo	0.003	0.00400	263	0.003	0.00400	274	537
Cook Islands	0.001	0.00133	88	0.001	0.00133	91	179
Costa Rica	0.016	0.02131	1,405	0.016	0.02131	1,459	2,864
Cote d'Ivoire	0.009	0.01199	790	0.009	0.01199	821	1,611
Croatia	0.030	0.03995	2,634	0.030	0.03995	2,735	5,370
Cuba	0.024	0.03196	2,107	0.024	0.03196	2,188	4,296
Cyprus	0.034	0.04528	2,986	0.034	0.04528	3,100	6,086
Czech Republic	0.107	0.14249	9,396	0.107	0.14249	9,756	19,151

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Democratic People's Republic of Korea	0.015	0.01998	1,317	0.015	0.01998	1,368	2,685
Democratic Republic of the Congo	0.007	0.00932	615	0.007	0.00932	638	1,253
Denmark	0.692	0.92151	60,765	0.692	0.92151	63,093	123,858
Djibouti	0.001	0.00133	88	0.001	0.00133	91	179
Dominica	0.001	0.00133	88	0.001	0.00133	91	179
Dominican Republic	0.015	0.01998	1,317	0.015	0.01998	1,368	2,685
Ecuador	0.020	0.02663	1,756	0.020	0.02663	1,824	3,580
Egypt	0.065	0.08656	5,708	0.065	0.08656	5,926	11,634
El Salvador	0.012	0.01598	1,054	0.012	0.01598	1,094	2,148
Equatorial Guinea	0.001	0.00133	88	0.001	0.00133	91	179
Eritrea	0.001	0.00133	88	0.001	0.00133	91	179
Estonia	0.012	0.01598	1,054	0.012	0.01598	1,094	2,148
Ethiopia	0.006	0.00799	527	0.006	0.00799	547	1,074
European Community	2.500	2.50000	164,850	2.500	2.50000	171,168	336,018
Fiji	0.004	0.00533	351	0.004	0.00533	365	716
Finland	0.543	0.72310	47,681	0.543	0.72310	49,508	97,189
France	6.545	8.71577	574,718	6.545	8.71577	596,742	1,171,460
Gabon	0.015	0.01998	1,317	0.015	0.01998	1,368	2,685
Gambia	0.001	0.00133	88	0.001	0.00133	91	179
Georgia	0.007	0.00932	615	0.007	0.00932	638	1,253
Germany	9.857	13.12625	865,545	9.857	13.12625	898,715	1,764,260
Ghana	0.007	0.00932	615	0.007	0.00932	638	1,253
Greece	0.351	0.46742	30,821	0.351	0.46742	32,003	62,824
Grenada	0.001	0.00133	88	0.001	0.00133	91	179
Guatemala	0.018	0.02397	1,581	0.018	0.02397	1,641	3,222
Guinea	0.003	0.00400	263	0.003	0.00400	274	537
Guinea-Bissau	0.001	0.00133	88	0.001	0.00133	91	179
Guyana	0.001	0.00133	88	0.001	0.00133	91	179
Haiti	0.002	0.00266	176	0.002	0.00266	182	358
Honduras	0.003	0.00400	263	0.003	0.00400	274	537
Hungary	0.120	0.15980	10,537	0.120	0.15980	10,941	21,478
Iceland	0.032	0.04261	2,810	0.032	0.04261	2,918	5,728
India	0.299	0.39817	26,255	0.299	0.39817	27,261	53,517
Indonesia	0.188	0.25035	16,508	0.188	0.25035	17,141	33,649
Iran (Islamic Republic of)	0.161	0.21440	14,137	0.161	0.21440	14,679	28,817
Ireland	0.224	0.29829	19,669	0.224	0.29829	20,423	40,093
Israel	0.350	0.46608	30,734	0.350	0.46608	31,911	62,645
Italy	5.437	7.24028	477,424	5.437	7.24028	495,720	973,144
Jamaica	0.006	0.00799	527	0.006	0.00799	547	1,074
Japan	20.573	25.00000	1,648,500	20.573	25.00000	1,711,675	3,360,175
Jordan	0.006	0.00799	527	0.006	0.00799	547	1,074
Kazakhstan	0.048	0.06392	4,215	0.048	0.06392	4,376	8,591
Kenya	0.007	0.00932	615	0.007	0.00932	638	1,253
Kiribati	0.001	0.00133	88	0.001	0.00133	91	179

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Kyrgyzstan	0.006	0.00799	527	0.006	0.00799	547	1,074
Lao People's Democratic Republic	0.001	0.00133	88	0.001	0.00133	91	179
Latvia	0.017	0.02264	1,493	0.017	0.02264	1,550	3,043
Lebanon	0.016	0.02131	1,405	0.016	0.02131	1,459	2,864
Lesotho	0.002	0.00266	176	0.002	0.00266	182	358
Liechtenstein	0.006	0.00799	527	0.006	0.00799	547	1,074
Lithuania	0.015	0.01998	1,317	0.015	0.01998	1,368	2,685
Luxembourg	0.068	0.09055	5,971	0.068	0.09055	6,200	12,171
Madagascar	0.003	0.00400	263	0.003	0.00400	274	537
Malawi	0.002	0.00266	176	0.002	0.00266	182	358
Malaysia	0.183	0.24370	16,069	0.183	0.24370	16,685	32,754
Maldives	0.001	0.00133	88	0.001	0.00133	91	179
Mali	0.002	0.00266	176	0.002	0.00266	182	358
Marshall Islands	0.001	0.00133	88	0.001	0.00133	91	179
Mauritania	0.001	0.00133	88	0.001	0.00133	91	179
Mauritius	0.009	0.01199	790	0.009	0.01199	821	1,611
Mexico	0.995	1.32501	87,371	0.995	1.32501	90,719	178,091
Micronesia (Federated States of )	0.001	0.00133	88	0.001	0.00133	91	179
Monaco	0.004	0.00533	351	0.004	0.00533	365	716
Mongolia	0.002	0.00266	176	0.002	0.00266	182	358
Morocco	0.041	0.05460	3,600	0.041	0.05460	3,738	7,338
Mozambique	0.001	0.00133	88	0.001	0.00133	91	179
Myanmar	0.008	0.01065	702	0.008	0.01065	729	1,432
Namibia	0.007	0.00932	615	0.007	0.00932	638	1,253
Nauru	0.001	0.00133	88	0.001	0.00133	91	179
Nepal	0.004	0.00533	351	0.004	0.00533	365	716
Netherlands	1.632	2.17328	143,306	1.632	2.17328	148,798	292,104
New Zealand	0.221	0.29430	19,406	0.221	0.29430	20,150	39,556
Nicaragua	0.001	0.00133	88	0.001	0.00133	91	179
Niue	0.001	0.00133	88	0.001	0.00133	91	179
Niger	0.002	0.00266	176	0.002	0.00266	182	358
Nigeria	0.032	0.04261	2,810	0.032	0.04261	2,918	5,728
Norway	0.610	0.81232	53,564	0.610	0.81232	55,617	109,181
Oman	0.051	0.06792	4,478	0.051	0.06792	4,650	9,128
Pakistan	0.059	0.07857	5,181	0.059	0.07857	5,379	10,560
Palau	0.001	0.00133	88	0.001	0.00133	91	179
Panama	0.013	0.01731	1,142	0.013	0.01731	1,185	2,327
Papua New Guinea	0.007	0.00932	615	0.007	0.00932	638	1,253
Paraguay	0.014	0.01864	1,229	0.014	0.01864	1,276	2,506
Peru	0.099	0.13184	8,693	0.099	0.13184	9,026	17,720
Philippines	0.081	0.10787	7,113	0.081	0.10787	7,385	14,498
Poland	0.196	0.26101	17,211	0.196	0.26101	17,870	35,081
Portugal	0.431	0.57395	37,846	0.431	0.57395	39,297	77,143
Qatar	0.033	0.04395	2,898	0.033	0.04395	3,009	5,907

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Republic of Korea	1.006	1.33966	88,337	1.006	1.33966	91,722	180,059
Republic of Moldova	0.010	0.01332	878	0.010	0.01332	912	1,790
Romania	0.056	0.07457	4,917	0.056	0.07457	5,106	10,023
Russian Federation	1.077	1.43421	94,572	1.077	1.43421	98,196	192,767
Rwanda	0.001	0.00133	88	0.001	0.00133	91	179
Saint Kitts and Nevis	0.001	0.00133	88	0.001	0.00133	91	179
Saint Lucia	0.001	0.00133	88	0.001	0.00133	91	179
Saint Vincent and the Grenadines	0.001	0.00133	88	0.001	0.00133	91	179
Samoa	0.001	0.00133	88	0.001	0.00133	91	179
San Marino	0.002	0.00266	176	0.002	0.00266	182	358
Sao Tome and Principe	0.001	0.00133	88	0.001	0.00133	91	179
Senegal	0.006	0.00799	527	0.006	0.00799	547	1,074
Seychelles	0.002	0.00266	176	0.002	0.00266	182	358
Sierra Leone	0.001	0.00133	88	0.001	0.00133	91	179
Singapore	0.179	0.23837	15,718	0.179	0.23837	16,320	32,038
Slovakia	0.035	0.04661	3,073	0.035	0.04661	3,191	6,264
Slovenia	0.061	0.08123	5,356	0.061	0.08123	5,562	10,918
Solomon Islands	0.001	0.00133	88	0.001	0.00133	91	179
South Africa	0.366	0.48739	32,139	0.366	0.48739	33,370	65,509
Spain	2.591	3.45035	227,516	2.591	3.45035	236,235	463,751
Sri Lanka	0.012	0.01598	1,054	0.012	0.01598	1,094	2,148
Sudan	0.007	0.00932	615	0.007	0.00932	638	1,253
Suriname	0.004	0.00533	351	0.004	0.00533	365	716
Swaziland	0.002	0.00266	176	0.002	0.00266	182	358
Sweden	1.079	1.43687	94,747	1.079	1.43687	98,378	193,125
Switzerland	1.215	1.61798	106,689	1.215	1.61798	110,778	217,467
Syrian Arab Republic	0.064	0.08523	5,620	0.064	0.08523	5,835	11,455
Tajikistan	0.004	0.00533	351	0.004	0.00533	365	716
The former Yugoslav Republic of Macedonia	0.004	0.00533	351	0.004	0.00533	365	716
Togo	0.001	0.00133	88	0.001	0.00133	91	179
Tonga	0.001	0.00133	88	0.001	0.00133	91	179
Trinidad and Tobago	0.016	0.02131	1,405	0.016	0.02131	1,459	2,864
Tunisia	0.028	0.03729	2,459	0.028	0.03729	2,553	5,012
Turkey	0.440	0.58593	38,636	0.440	0.58593	40,117	78,754
Turkmenistan	0.006	0.00799	527	0.006	0.00799	547	1,074
Uganda	0.004	0.00533	351	0.004	0.00533	365	716
Ukraine	0.190	0.25302	16,684	0.190	0.25302	17,323	34,007
United Arab Emirates	0.178	0.23704	15,630	0.178	0.23704	16,229	31,859
United Kingdom of Great Britain and Northern Ireland	5.090	6.77819	446,954	5.090	6.77819	464,082	911,036
United Republic of Tanzania	0.003	0.00400	263	0.003	0.00400	274	537
Uruguay	0.048	0.06392	4,215	0.048	0.06392	4,376	8,591

<b>Member Country</b>	<b>UN scale of assessments 2000 (per cent)</b>	<b>Scale with 25 per cent ceiling, no LDC paying more than 0.01 % (per cent)</b>	<b>Contributions per 1 Jan. 2001 US\$</b>	<b>UN scale of assessments 2000 (per cent)</b>	<b>Scale with 25 per cent ceiling, no LDC paying more than 0.01 % (per cent)</b>	<b>Contributions as per 1 Jan. 2002 US\$</b>	<b>Total contributions 2001-2002 US\$</b>
Uzbekistan	0.025	0.03329	2,195	0.025	0.03329	2,279	4,475
Vanuatu	0.001	0.00133	88	0.001	0.00133	91	179
Venezuela	0.160	0.21307	14,050	0.160	0.21307	14,588	28,638
Viet Nam	0.007	0.00932	615	0.007	0.00932	638	1,253
Yemen	0.010	0.01332	878	0.010	0.01332	912	1,790
Zambia	0.002	0.00266	176	0.002	0.00266	182	358
Zimbabwe	0.009	0.01199	790	0.009	0.01199	821	1,611
<b>TOTAL</b>	<b>77.516</b>	<b>100.000</b>	<b>6,594,000</b>	<b>77.516</b>	<b>100.000</b>	<b>6,846,700</b>	<b>13,440,700</b>



V/23. Consideration of options for conservation and sustainable use of biological diversity in dryland, Mediterranean, arid, semi-arid, grassland and savannah ecosystems

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 the programme of work contained in annex I to the present decision;

3. Urges Parties, countries, international and regional organizations, major groups and other relevant bodies to implement it, to support scientifically, technically and financially its activities at the national and regional levels and to foster cooperation among countries within regions and subregions sharing similar biomes;

4. Endorses the indicative list of levels of implementation and coordination for the various activities which are proposed in annex II, and the process described in the paragraphs 5, 6 and 7 below, and illustrated in annex III;

5. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to review and assess periodically 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 prioritization, refinement and scheduling of the programme of work based on the review by the Executive Secretary referred to in paragraph 8 below;

6. Requests the Executive Secretary to review this programme of work and identify expected outcomes, further activities to achieve these outcomes, those who should implement these activities, and timetables for action and follow-up, taking into account the suggestions of the technical group of experts, and to present these to the Subsidiary Body on Scientific, Technical and Technological Advice for consideration at a following meeting. This process should be carried out in close collaboration with the Executive Secretary of the United Nations Convention to Combat Desertification and other relevant bodies to provide synergy and avoid duplication;

7. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to establish an ad hoc technical group of experts with the following tasks:

(a) Consolidate and assess information on the status and trends of biodiversity of dry and sub-humid lands, on the possible establishment of an international network of dry and sub-humid areas of particular value for biodiversity, on indicators, on processes affecting biodiversity, on global benefits derived from biodiversity, and on the socio-economic impacts of its loss, including the interrelationship between biodiversity and poverty;

(b) Assess the progress and the effects of the specific measures that have been taken for the conservation and sustainable use of biodiversity, for resource management and for the support of sustainable livelihoods;

(c) Assess international priorities set up at the regional and global levels and make proposals for expected outcomes, further activities, possible actors that may implement them, and timetables for action;

8. Requests the Executive Secretary to collaborate with the Secretariat of the Convention to Combat Desertification, including through the development of a joint work programme, drawing upon the elements contained in the note by the Executive Secretary on coordination between the Convention on Biological diversity and the Convention to Combat Desertification (UNEP/CBD/COP/5/INF/15), as well as with other relevant bodies, in the implementation and further elaboration of the programme of work and further requests the Executive Secretary to seek inputs from and collaborate with countries with sub-humid lands, and with other bodies relevant to sub-humid lands;

9. Requests the Executive Secretary to establish a roster of experts on the biological diversity of dry and sub-humid lands. This should be carried out in close collaboration with the Executive Secretary of the Convention to Combat Desertification and other relevant bodies to provide synergy and avoid duplication;

10. Requests the Executive Secretary to make available relevant information on the biological diversity of dry and sub-humid lands through various means, including the development in the clearing-house mechanism of a database on dry and sub-humid lands;

11. Invites bilateral and international funding agencies to provide support for the implementation of the activities of the programme of work on the biodiversity of dry and sub-humid lands, in particular for capacity-building in developing countries and countries with economies in transition.

## Annex I

### 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. 6/

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 issue;

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6/ The programme of work does not apply to polar and tundra regions.

(c) Promote synergy and coordination, and avoid unnecessary duplication, between related conventions, particularly the United Nations 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. PROGRAMME OF WORK

4. The 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 community practices, contribute to the knowledge base. Since water constraints are a defining characteristic of dry and sub-humid lands, effective water management strategies underpin their successful management. This requires an appropriate balance between the immediate water requirements of humans, their livestock and crops, and water required to maintain biodiversity and ecosystem integrity.

#### 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 the various ecosystem types, 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, including soil and water conservation, derived from the biological diversity of dry and sub-humid lands, assessment of the socio-economic impact of its loss, and the undertaking of studies on the interrelationship between biodiversity and poverty, including analysis of: (i) the benefits from biodiversity for poverty alleviation; and (ii) the impact of biodiversity conservation on the poorest.

Activity 6. Identification and dissemination of best management practices, including knowledge, innovations and practices of indigenous and local communities that can be broadly applied, consistent with the programme of work under the Convention on Article 8(j) and related provisions.

#### 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 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, drawing upon the elements contained in the note by the Executive Secretary on possible elements of a joint work programme between the two secretariats on the biological diversity of dry and sub-humid lands (UNEP/CBD/COP/5/INF/15) in determining priorities for these activities;

(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) Multidisciplinary and interdisciplinary 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, with the associated benefits arising thereof, such as soil and water conservation;
- (c) The management of invasive alien species;
- (d) The sustainable management of dry and sub-humid land production systems;
- (e) The appropriate management and sustainable use of water resources
- (f) 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;
- (g) 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 adaptive technologies that enhance productivity of dry and sub-humid lands ecosystems;
- (h) The sustainable use or husbandry of plant and animal biomass, through adaptive management, bearing in mind the potential population fluctuation in dry and sub-humid lands, and the support by Parties of national policies, legislation and land-use practices, which promote effective biodiversity conservation and sustainable use;
- (i) The establishment and promotion of training, education and public awareness;
- (j) 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;
- (k) 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;
- (l) Cooperation with the Ramsar Convention on Wetlands and the Convention on the Conservation of Migratory Species with regard to, inter alia, integrated catchment management incorporating wetlands ecosystems as integral parts of dry and sub-humid lands, and 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 (CITES) with regard to rare and endangered species in dry and sub-humid lands;
- (m) 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 application of 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) Strengthening of appropriate local institutional structures for resource management, supporting indigenous and local techniques of resource use that enable conservation and sustainable use in the long term, and/or combining appropriate existing institutions and techniques with innovative approaches to enable synergies;

(b) 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;

(c) Creating or strengthening appropriate institutions for land tenure and conflict resolution;

(d) Encouraging bilateral and subregional cooperation to address transboundary issues (such as facilitating access to transboundary rangelands), as appropriate, and in accordance with national legislation and international agreements;

(e) 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, 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 including of wildlife, as well as ranching, including game-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 markets for products derived from the sustainable use of biological diversity in dry and sub-humid lands, adding value to harvested produce; and

(e) Establishing mechanisms and frameworks for 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, drawing upon the elements contained in the note by the Executive Secretary on possible elements of a joint work programme between the two secretariats on the biological diversity of dry and sub-humid lands (UNEP/CBD/COP/5/INF/15) in determining priorities for this interaction; 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 and make recommendation for the further prioritization and refinement of the programme of work at that time. Thereafter, the implementation of the programme is to be reviewed as determined by the Conference of the Parties.



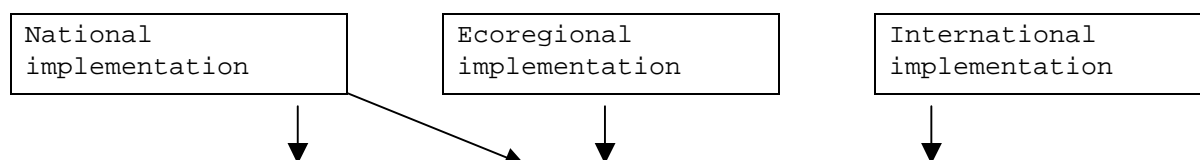
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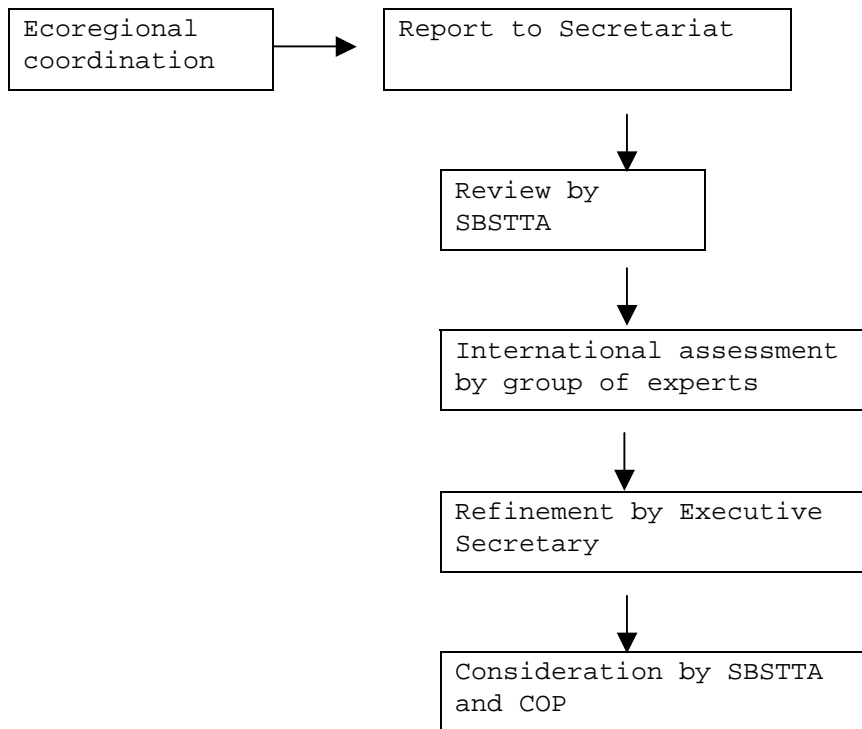
INDICATIVE LIST OF LEVELS OF IMPLEMENTATION OF THE  
PROGRAMME OF WORK ON DRY AND SUB-HUMID LANDS

<u>Activity</u>	<u>Level of implementation</u>	<u>Level of coordination</u>
1	National	Ecoregional
2	National	Ecoregional
3	Ecoregional	
5	National, ecoregional, international	
6	Ecoregional	
7 a	National, ecoregional	
7 b	National	
7 c	National, ecoregional	
7 d	National	Ecoregional
7 e	National, ecoregional	
7 f	National, international	
7 g	National	Ecoregional
7 h	National	Ecoregional
7 i	National	Ecoregional
7 j	Ecoregional, international	
7 k	National, ecoregional	
7 l	International	
7 m	International	
8 a	National	Ecoregional
8 b	National	Ecoregional
8 c	Ecoregional	
8 d	National, ecoregional	
8 e	National	Ecoregional
9 a	National	Ecoregional
9 b	National	Ecoregional
9 c	National	Ecoregional
9 d	National	Ecoregional
9 e	National, international	

Annex III

ILLUSTRATION OF THE PROCESS OUTLINED IN PARAGRAPHS 5, 6 and 7 OF  
DECISION V/23





V/24. Sustainable use as a cross-cutting issue

The Conference of the Parties,

Recognizing that conservation of biodiversity is a global service to humankind and is not captured and adequately recognized by current economic relations and patterns,

Recognizing also that conservation and sustainable use of biological diversity is essential to the survival of species and also benefits humankind particularly those people who are dependent on biological resources for their livelihoods,

Further recognizing the importance of integrating, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into sectoral or cross-sectoral plans, programmes and policies, and recognizing the importance of addressing this issue in national biodiversity strategies and action plans, in accordance with Articles 6 and 10 of the Convention on Biological Diversity,

Taking into account the decisions of the Conference of the Parties and the ecosystem approach,

Noting the synergies between the conservation and sustainable use of biological diversity,

Noting also that the highest levels of biodiversity often occur in the less economically developed regions,

Recognizing the harmful effects of war and poverty on the conservation and sustainable use of biological diversity especially in regions rich in endemic species, and the need for mobilization of financial and technical resources for the rehabilitation and restoration of affected bio-ecological zones,

Noting the important linkages with the programmes of work on indicators (decision V/7) and incentive measures (decision V/15), and that appropriate indicators and incentive measures are essential elements in developing effective approaches to the sustainable use of biological diversity,

1. Requests the Executive Secretary to invite organizations involved in sustainable-use initiatives, and other relevant organizations, 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, relevant organizations, the private sector and indigenous and local communities;

2. Commends to the Executive Secretary the process being used to develop the ecosystem approach and requests him, together with relevant organizations, to adapt and immediately initiate that process for relevant work on sustainable use;

3. Requests the Executive Secretary to assemble, in collaboration with relevant organizations, drawing from an assessment of the case-studies referred to in paragraph 1 above, and the process referred to in paragraph 2 above, practical principles, operational guidelines and associated

instruments, and guidance specific to sectors and biomes, which would assist Parties and Governments to develop ways to achieve the sustainable use of biological diversity, within the framework of the ecosystem approach, and to present a progress report for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice prior to the sixth meeting of the Conference of the Parties;

4. Invites Parties and Governments to identify indicators and incentive measures for sectors relevant to the conservation and sustainable use of biodiversity;

5. Invites Parties, Governments and relevant organizations to undertake appropriate actions to assist other Parties, especially developing countries and countries with economies in transition, to increase their capacity to implement sustainable-use practices, programmes and policies at regional, national and local levels, especially in pursuit of poverty alleviation. 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;

6. Urges Parties, Governments and organizations to develop or explore mechanisms to involve the private sector and indigenous and local communities in initiatives on the sustainable use of biological diversity, and in mechanisms to ensure that indigenous and local communities benefit from such sustainable use;

7. Recognizes that sustainable use can be an effective tool in imbuing value to biodiversity, and invites Parties to identify areas for conservation that would benefit through the sustainable use of biological diversity, and to communicate this information to the Executive Secretary.

V/25. Biological diversity and tourism

The Conference of the Parties,

Recognizing the increasing importance of tourism for social and economic development at local, national and regional levels,

Recognizing also that sustainable tourism depends on community involvement and participation,

Recognizing further that communities should benefit from sustainable tourism,

Recognizing also that tourism is closely linked to the preservation of a healthy environment, which in turn is an essential element of tourism development and helps to raise public awareness on some biodiversity issues.

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

(a) The economic importance of tourism and its interrelationship with the conservation and sustainable use of biological diversity;

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

2. Accepts the invitation to participate in the international work programme on sustainable tourism development under the Commission on Sustainable Development 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 riparian and mountain ecosystems, bearing in mind the need for such guidelines to apply to activities both within and outside protected areas, and taking into account existing guidelines, and requests the Executive Secretary to prepare a proposal for the contribution on guidelines, for example by convening an international workshop;

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, in particular the World Tourism Organization, 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 - that is, tourism that relies on the existence and maintenance of biological diversity and habitats - and the need to develop clear strategies to develop sustainable ecotourism sectors which provides for full and effective participation and viable income-generating opportunities for indigenous and local communities;

/...

(b) The need to develop, with all the potential stakeholders, strategies and plans, based on the ecosystem approach and aiming at a balance between economic, social, cultural and environmental concerns, while maximizing opportunities for the conservation and sustainable use of biological diversity, the equitable sharing of benefits and the recognition of traditional knowledge, in accordance with Article 8(j) of the Convention, and seeking to minimize 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) Tangible benefits to the local economies, such as job creation and the 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 an important mechanism for the conservation and sustainable use of biological diversity, and to meet the expectations of all stakeholders, while encouraging responsible behaviour on the part of tourists and the tourist industry, tourism enterprises and the local population;

(f) Awareness-raising, information-sharing, education and training of tourism operators and their staff and sensitization of tourists on biological diversity issues and technical and capacity-building at the local level, which enhance the goal of the respect and the conservation of biological diversity and its sustainable use;

(g) The fact that in order to contribute to 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 that includes indigenous peoples, zoning in land-use planning, environmental impact assessment, strategic environmental assessment, standards, industry performance-recognition programmes, recognized accreditation bodies, ecolabelling, codes of good practice, environmental management and audit systems, economic instruments, indicators and limits regarding the carrying capacity of the natural areas;

(h) The importance of the involvement and the need for the 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;

(i) The importance of the understanding of the values and knowledge of use of biological diversity held by the indigenous and local communities and the opportunities these offer for sustainable tourism and the support 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 encourages 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, and, 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 to transmit its findings, through the Executive Secretary, to the Commission on Sustainable Development at its tenth session;

7. Encourages Parties, Governments, the tourism industry and relevant organizations to undertake activities including local capacity-building, 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, and, in particular:

(a) Urges the tourism industry to work in partnership with all stakeholders and to commit to work within principles and guidelines for sustainable tourism development;

(b) Encourages Parties and Governments to complement voluntary efforts by establishing enabling policies and legal frameworks for the effective implementation of sustainable tourism.

#### 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>7/</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>8/</sup> Tourism is also a major source of employment, the hotel accommodation sector alone employing around 11.3 million people worldwide. <sup>9/</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>10/</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>11/</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

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<sup>7/</sup> World Tourism Organization, Tourism Highlights 1997.

<sup>8/</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>9/</sup> Ibid.

<sup>10/</sup> Jeffrey McNeely, "Tourism and Biodiversity: a natural partnership", presented at the Symposium on Tourism and Biodiversity, Utrecht, 17 April 1997.

<sup>11/</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).



time, efforts must be made to minimize the adverse impacts of the tourism industry on biological diversity.

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. 12/ 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. 13/ 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. 14/

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 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.

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

13/ Ibid.

14/ Ibid.

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>15/</sup> The extraction of groundwater by some tourism activities can cause desiccation, resulting in loss of biological diversity. For the quality of water, some activities are potentially more damaging than others.

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<sup>15/</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,

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>16/</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>17/</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>18/</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

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<sup>16/</sup> Tourism, ecotourism, and protected areas, Hector Ceballos-Lascurain, IUCN, 1996.

<sup>17/</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>18/</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.

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 Maldives because of the availability of a large number of uninhabited islands that can be developed into tourist-resort islands. 19/

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.

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19/ 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.

V/26. Access to genetic resources

A. Access and benefit-sharing arrangements

The Conference of the Parties

1. Requests Parties to designate a national focal point and one or more competent national authorities, as appropriate, to be responsible for access and benefit-sharing arrangements or to provide information on such 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. Urques Parties to ensure that national biodiversity strategies as well as legislative, administrative or policy measures on access and benefit-sharing contribute to conservation and sustainable-use objectives;

4. Recognizing the importance for Parties to promote trust-building and transparency in order to facilitate the exchange of genetic resources, particularly with regard to the implementation of Article 15 of the Convention:

(a) Urques Parties to pay particular attention to their obligations under Articles 15, 16 and 19 of the Convention, and requests them to report to the Conference of the Parties on the measures they have taken to this effect;

(b) Notes that legislative, administrative or policy measures for access and benefit-sharing need to promote flexibility, while recognizing the need for sufficient regulation of access to genetic resources to promote the objectives of the Convention;

(c) Notes that all countries are providers and recipients of genetic resources, and urques recipient countries to adopt, appropriate to national circumstances, legislative, administrative or policy measures consistent with the objectives of the Convention that are supportive of efforts made by provider countries to ensure that access to their genetic resources for scientific, commercial and other uses, and associated knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity, as appropriate, is subject to Articles 15, 16 and 19 of the Convention, unless otherwise determined by that provider country;

(d) Recognizing the complexity of this issue, with particular consideration of the multiplicity of prior informed consent considerations, invites Parties to cooperate further to find practical and equitable solutions to this issue;

5. Notes that the promotion of a comprehensive legal and administrative system may facilitate access to and use of genetic resources and contribute to mutually agreed terms in line with the aims of the Convention;

6. Notes that, in the absence of comprehensive legislation and national strategies for access and benefit-sharing, voluntary measures, including guidelines, may help ensure realization of the objectives of the



Convention, and to that end invites the Parties to consider promotion of their use;

7. Stresses that it is important that, in developing national legislation on access, Parties take into account and allow for the development of a multilateral system to facilitate access and benefit-sharing in the context of the International Undertaking on Plant Genetic Resources, which is currently being revised;

8. Notes the report of the Chairman of the Commission on Genetic Resources for Food and Agriculture of the Food and Agriculture Organization of the United Nations (UNEP/CBD/COP/5/INF/12) and urges the Commission to finalize its work as soon as possible. The International Undertaking is envisaged to play a crucial role in the implementation of the Convention on Biological Diversity. The Conference of the Parties affirms its willingness to consider a decision by the Conference of the Food and Agriculture Organization of the United Nations that the International Undertaking become a legally binding instrument with strong links to both the Food and Agriculture Organization of the United Nations and the Convention on Biological Diversity, and calls upon Parties to coordinate their positions in both forums;

9. Notes 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 (UNEP/CBD/COP/5/8);

10. Decides to reconvene the Panel of Experts on Access and Benefit-sharing with a concrete mandate and agenda. The Panel will conduct further work on outstanding issues from its first meeting, especially:

(a) Assessment of user and provider experience in access to genetic resources and benefit-sharing and study of complementary options;

(b) Identification of approaches to involvement of stakeholders in access to genetic resources and benefit-sharing processes;

and will include additional expertise. The Panel will submit its report to the Ad Hoc Open-ended Working Group on Access and Benefit-sharing referred to in paragraph 11 below;

11. Decides to establish an Ad Hoc Open-ended Working Group, composed of representatives, including experts, nominated by Governments and regional economic integration organizations, with the mandate to develop guidelines and other approaches for submission to the Conference of the Parties and to assist Parties and stakeholders in addressing the following elements as relevant to access to genetic resources and benefit-sharing, inter alia: terms for prior informed consent and mutually agreed terms; roles, responsibilities and participation of stakeholders; relevant aspects relating to in situ and ex situ conservation and sustainable use; mechanisms for benefit-sharing, for example through technology transfer and joint research and development; and means to ensure the respect, preservation and maintenance of knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity, taking into account, inter alia, work by the World Intellectual Property Organization on intellectual property rights issues.

The above-mentioned elements should, in particular, serve as inputs when developing and drafting:

(a) Legislative, administrative or policy measures on access and benefit-sharing; and

(b) Contracts or other arrangements under mutually agreed terms for access and benefit-sharing.

The results of the deliberations of the Working Group, including draft guidelines and other approaches, shall be submitted for consideration by the Conference of the Parties at its sixth meeting.

The work of the Working Group shall take into account the reports of the Panel of Experts on Access and Benefit-sharing and other relevant information.

The Working Group will be open to the participation of indigenous and local communities, non-governmental organizations, industry and scientific and academic institutions, as well as intergovernmental organizations.

The Working Group shall maintain communication and exchange of information with the Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity.

In order to build capacity for access and benefit-sharing, the Open-ended Working Group shall consider issues of capacity-building, including those needs identified in paragraphs 14 (a), (b), (c) and (d) below;

12. 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";

13. Requests the Executive Secretary to compile the information referred to in paragraph 12 above and disseminate it through the clearing-house mechanism and relevant meetings, and requests Parties and organizations to provide such information to assist the Executive Secretary;

14. Notes that further development of capacities regarding all aspects of access and benefit-sharing arrangements is required for all stakeholders, including local governments, academic institutions, and indigenous and local communities, and that key capacity-building needs include:

(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;

(d) Means for the protection of traditional knowledge associated with genetic resources;

15. Noting that the Panel of Experts on Access and Benefit-sharing was not able to come to any conclusions about the role of intellectual property rights in the implementation of access and benefit-sharing arrangements, and that the Panel developed a list of specific issues that require further study (UNEP/CBD/COP/5/8, paras. 127-138):

(a) Invites Parties and relevant organizations to submit to the Executive Secretary information on these issues by 31 December 2000;

(b) Requests the Executive Secretary, on the basis of these submissions and other relevant material, to make available for the second meeting of the Panel, or the first meeting of the Ad Hoc Open-ended Working Group, a report on these specific issues;

(c) Recalls recommendation 3 of the Inter-Sessional Meeting on the Operations of the Convention, and requests the Executive Secretary to prepare his report in consultation with, inter alia, the Secretariat of the World Intellectual Property Organization;

(d) Invites relevant international organizations, including the World Intellectual Property Organization, to analyse issues of intellectual property rights as they relate to access to genetic resources and benefit-sharing, including the provision of information on the origin of genetic resources, if known, when submitting applications for intellectual property rights, including patents;

(e) Requests relevant international organizations, for example, the World Intellectual Property Organization and the International Union for the Protection of New Varieties of Plants, in their work on intellectual property rights issues, to take due account of relevant provisions of the Convention on Biological Diversity, including the impact of intellectual property rights on the conservation and sustainable use of biological diversity, and in particular the value of knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity;

(f) Requests the Executive Secretary to explore experience and possibilities for synergistic interactions resulting from collaboration in research, joint development and the transfer of technology following access to genetic resources.

B. The relationship between intellectual property rights and the relevant provisions of the Agreement on Trade-related Aspects of Intellectual Property Rights and the Convention on Biological Diversity

The Conference of the Parties,

Noting recommendation 3 of the Inter-Sessional Meeting on the Operations of the Convention, concerning the relationship between intellectual property rights and the relevant provisions of the 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 and 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 Agreement on Trade-related Aspects of Intellectual Property Rights 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 secretariats 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;

4. Renews its request to the Executive Secretary of the Convention to apply for observer status on the Council for the Trade-related Aspects of Intellectual Property Rights, and requests him to report back to the Conference of the Parties on his efforts.

C. 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

The Conference of the Parties

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 of the Food and Agriculture Organization of the United Nations initiated by decision IV/8;

2. Requests the Executive Secretary to gather available information of the type described in the annexes to the present decision, as appropriate, from Parties, Governments and relevant organizations and forums through questionnaires;

3. Invites relevant organizations and forums already involved in consideration of these issues to provide this information to the Executive Secretary;

4. Invites Parties, Governments and other organizations to provide capacity-building and technology development and transfer for the maintenance and utilization of ex situ collections;

5. Requests the Executive Secretary to report to the Conference of the Parties at its sixth meeting on the implementation of the present decision.

#### 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 II

##### QUESTIONNAIRE ON EX SITU COLLECTIONS

###### Objective

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
PLANT GENETIC RESOURCES seed gene banks: field collections: (e.g. botanic gardens and arboreta) other: (e.g. DNA, pollen in cold storage, tissue cultures, herbaria )				
ANIMAL GENETIC RESOURCES Whole animal collections: (e.g. zoological gardens; rare breed collections) other: (e.g. DNA, semen, ova in cold storage)				
MICROBIAL GENETIC RESOURCES culture collections: other:				

2. Information on pre-Convention on Biological Diversity collections

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

Is information available on:	For all accessions	For most accessions	For some accessions	For few accessions	For no accessions
country of origin					
name of depositor					
date of deposit					
user institution/ country					

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

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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 worldwide).

V/27. Contribution of the Convention on Biological Diversity to the ten-year review of progress achieved since the United Nations Conference on Environment and Development

The Conference of the Parties,

Recognizing the importance of the forthcoming ten-year review of progress achieved in the implementation of the outcome of the United Nations Conference on Environment and Development, scheduled for the year 2002,

1. Welcomes General Assembly resolution 54/218, in which the General Assembly, inter alia, invited the secretariat of the Convention to provide reports on how its activities are contributing to the implementation of Agenda 21 and the Programme for the Further Implementation of Agenda 21, for the consideration of the General Assembly at its fifty-fifth session,

2. Also welcomes the invitation of the Commission on Sustainable Development extended to secretariats of UNCED-related conventions to support preparatory activities of the ten-year review, and to review and assess their respective programmes of work since United Nations Conference on Environment and Development;

3. Requests the Executive Secretary to support such preparatory activities and, in particular, to report to the Commission on Sustainable Development on progress made in the implementation of the Convention;

4. Encourages Parties, Governments and countries to highlight and emphasize biological diversity considerations in their contributions to the ten-year review.



V/28. Tribute to the Government and people of Kenya

The Conference of the Parties,

Having met in Nairobi from 15 to 26 May 2000, at the gracious invitation of the Government of Kenya,

Deeply appreciative of the special courtesy and the warm hospitality extended by the Government and people of Kenya to the Ministers, members of the delegations, observers and members of the Secretariat attending the meeting,

Expresses its sincere gratitude to the Government of Kenya and to its people for the cordial welcome that they accorded to the meeting and to those associated with its work, and for their contribution to the success of the meeting.

V/29. Date and venue of the sixth meeting of the Conference of the Parties

The Conference of the Parties

1. Welcomes the kind offer of the Government of the Netherlands to host the sixth meeting of the Conference of the Parties;

2. Decides that the sixth meeting of the Conference of the Parties will take place in The Hague, the Netherlands, at a date to be specified by the Bureau, in the second quarter of 2002, and communicated to all Parties.

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