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CONFERENCE OF THE PARTIES TO THE  
CONVENTION ON BIOLOGICAL DIVERSITY  
Seventh meeting  
Kuala Lumpur, 9-20 and 27 February 2004

### DRAFT DECISIONS FOR THE SEVENTH MEETING OF THE CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY

*Note by the Executive Secretary*

#### INTRODUCTION

1. The present note compiles the elements of the various draft recommendations that have been made for the consideration of the Conference of the Parties at its seventh meeting by the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), the Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010, the Ad Hoc Open-ended Working Group on Access and Benefit-sharing, the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions, and, where appropriate, the Executive Secretary. These elements organized according to the provisional agenda for the seventh meeting of the Conference of the Parties (UNEP/CBD/COP/7/1 and Corr.1).

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

3. In those cases where a recommendation cannot be easily framed as part of a draft decision (e.g., when it is recommended that the Conference of the Parties “consider the need for”), the element in question has not been incorporated into the draft decision, but is highlighted in ***bold italics*** as an additional action recommended for the Conference of the Parties.

## CONTENTS

<i>Item</i>	<i>Page</i>
9. Reports of the Subsidiary Body on Scientific, Technical and Technological Advice.....	6
10. Report of the President of the Conference of the Parties at its sixth meeting on the outcome of the World Summit on Sustainable Development.....	6
11. Report of the Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010.....	6
12. Report of the Ad Hoc Open-ended Working Group on Access and Benefit-sharing.....	6
13. Report of the Ad Hoc Open-ended Inter-Sessional Working Group on the Implementation of Article 8(j) and Related Provisions .....	6
14. Report on the status of the Biosafety Protocol.....	6
15. Report of the Global Environment Facility.....	6
16. Report of the Executive Secretary on the administration of the Convention and the budget for the Trust Fund of the Convention .....	6
17. Thematic programmes of work: progress reports on implementation and consideration of proposals for future action: forest biological diversity; biological diversity of dry and sub-humid lands; and agricultural biological diversity .....	6
A. Forest biological diversity.....	6
B. The biological diversity of dry and sub-humid lands.....	6
C. Agricultural biological diversity .....	6
18. Thematic programmes of work—review, further elaboration and refinement: biological diversity of inland water ecosystems and marine and coastal biological diversity .....	6
A. Biological diversity of inland water ecosystems.....	6
B. Marine and coastal biological diversity .....	6
19. Cross-cutting issues: progress reports on implementation and consideration of proposals for future action.....	6
19.1. Identification, monitoring, indicators and assessments (Article 7).....	6
19.2. Global Taxonomy Initiative .....	6
19.3. Global Strategy for Plant Conservation .....	6

19.4.	Ecosystem approach.....	6
19.5.	Sustainable use (Article 10) .....	6
19.6	Alien species that threaten ecosystems, habitats or species (Article 8 (h)).....	6
19.7.	Biological diversity and tourism .....	6
19.8.	Article 8(j) and related provisions.....	6
	A. Progress report on the integration of the relevant tasks of the programme of work on Article 8(j) into the thematic areas of the Convention.....	6
	B. Review of progress in the implementation of the priority tasks of the programme of work on Article 8(j) and related provisions .....	6
	C. Genetic use restriction technologies .....	6
	D. Composite report on the status and trends regarding the knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity .....	6
	E.. Draft Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities .....	6
	F. Participatory mechanisms for indigenous and local communities.....	6
	G. Development of elements of sui generis systems for the protection of traditional knowledge, innovations and practices .....	6
	H. Recommendations of the Permanent Forum on Indigenous Issues to the Convention on Biological Diversity .....	6
19.9.	Liability and redress (Article 14, paragraph 2) .....	6
19.10.	Incentive measures (Article 11) .....	6
19.11.	Access and benefit-sharing as related to genetic resources (Article 15).....	6
	A. Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising out of their Utilization .....	6
	B. Use of terms, definitions and/or glossary, as appropriate.....	6
	C. Other approaches, as set out in decision VI/24 B.....	6
	D. International regime on access to genetic resources and benefit-sharing .....	6

	E..	Measures, including consideration of their feasibility, practicality and costs, to support compliance with prior informed consent of the Contracting Party providing genetic resources and mutually agreed terms on which access was granted in Contracting Parties with users of such resources under their jurisdiction.....	6
	F.	Needs for capacity-building identified by countries to implement the Bonn Guidelines .....	6
19.12.		Biodiversity and climate change .....	6
20.		Mechanisms for implementation.....	6
20.1.		Financial resources and mechanism (Articles 20 and 21).....	6
	A.	Additional financial resources .....	6
	B.	Review of the effectiveness of the financial mechanism.....	6
	C.	Guidance to the financial mechanism.....	6
20.2.		Scientific and technical cooperation and the clearing-house mechanism (Article 18, paragraph 3).....	6
	A.	The clearing-house mechanism .....	6
	B.	Operational procedures for the informal advisory committee of the clearing-house mechanism.....	6
20.3.		Education and public awareness (Article 13).....	6
20.4		National reporting .....	6
	A.	Guidelines for the third national report.....	6
	B.	National reporting.....	6
21.		Cooperation with other conventions and international organizations and initiatives.....	6
22.		Budget for the programme of work for the biennium 2005-2006.....	6
23.		Mountain biological diversity .....	6
24.		Protected areas (Articles 8 (a) to (e)).....	6
25.		Transfer of technology and technology cooperation (Articles 16 and 18).....	6
26.		Follow-up to the World Summit on Sustainable Development, the multi-year programme of work of the Conference of the Parties up to 2010, the Strategic Plan and operations of the Convention .....	6
	A.	Multi-year programme of work of the Conference of the Parties up to 2010 .....	6

B.	Implementation of the Convention and the Strategic Plan: future evaluation of progress .....	6
C.	The programme of work of the Convention and the Millennium Development Goals.....	6
D.	Operations of the Convention .....	6

## ELEMENTS OF DRAFT DECISIONS BY ITEMS OF THE AGENDA

### I. ORGANIZATIONAL MATTERS

1. No draft decisions are foreseen under section I of the provisional agenda (Organizational matters), which includes procedural items such as opening of the meeting, organization of work, election of officers, dates and venue of the eighth meeting of the Conference of the Parties, etc. The action required on the part of the Conference of the Parties under the items in this section is reflected in the revised annotations to the provisional agenda (UNEP/CBD/COP/7/1/Add.1/Rev.1).

### II. ADOPTION OF REPORTS

2. In accordance with previous practice, the annotated agenda invites the Conference of the Parties to take note of the reports presented by subsidiary bodies and take up substantive matters raised in these reports under the relevant item of the agenda. Text for decisions to this effect are provided below by the Executive Secretary for each report for which this approach has been suggested (items 9, 10, 11, 12 and 14 of the provisional agenda).

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

*The Conference of the Parties*

1. *Takes note* of the report of the eighth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, held in Montreal from 10 to 14 March 2003 (UNEP/CBD/COP/7/3);

2. *Takes note also* of the report of the ninth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, held in Montreal from 10 to 14 November 2003 (UNEP/CBD/COP/7/4).

#### **10. *Report of the President of the Conference of the Parties at its sixth meeting on the outcome of the World Summit on Sustainable Development***

*The Conference of the Parties*

*Takes note* of the report of the President of the Conference of the Parties at its sixth meeting on the outcome of the World Summit on Sustainable Development.

#### **11. *Report of the Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010***

*The Conference of the Parties*

*Takes note* of the report of the Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010, held in Montreal from 17 to 20 March 2003 (UNEP/CBD/COP/7/5).

**12. Report of the Ad Hoc Open-ended Working Group on Access and Benefit-sharing**

*The Conference of the Parties*

*Takes note* of the report of the second meeting of the Ad Hoc Open-ended Working Group on Access and Benefit-sharing, held in Montreal from 1 to 5 December 2003 (UNEP/CBD/COP/7/6).

**13. Report of the Ad Hoc Open-ended Inter-Sessional Working Group on the Implementation of Article 8(j) and Related Provisions**

*The Conference of the Parties*

*Takes note* of the report of the third meeting of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity, held in Montreal from 8 to 12 December 2003 (UNEP/CBD/COP/7/7).

**14. Report on the status of the Biosafety Protocol**

*The Conference of the Parties*

1. *Takes note* of the report of the Executive Secretary on the status of the preparatory work for the first meeting of the Conference of the Parties serving as the meeting of the Parties to the Protocol (UNEP/CBD/COP/7/8);

2. *Takes note also* of the report of the Intergovernmental Committee for the Cartagena Protocol on Biosafety on the work of its third and final meeting, held in The Hague from 22 to 26 April 2002 (UNEP/CBD/BS/COP-MOP/1/3/Add.3).

**15. Report of the Global Environment Facility**

*The Conference of the Parties usually takes note of this report (UNEP/CBD/COP/7/9) as part of its decision on further guidance to the financial mechanism (see item 20.1 below).*

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

*The Conference of the Parties does not normally take note of this report (UNEP/CBD/COP/7/10). A decision on the programme budget is to be taken under item 22 of the agenda for the present meeting. The suggestions of the Executive Secretary arising from the experience of the administration of the Convention are contained in the draft decision for item 22.*

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

#### 17. *Thematic programmes of work: progress reports on implementation and consideration of proposals for future action: forest biological diversity; biological diversity of dry and sub-humid lands; and agricultural biological diversity*

##### *[General]*

*In paragraph 2 (a) of the progress report on the implementation of the programmes of work on thematic areas (UNEP/CBD/COP/7/11), it is suggested the Conference of the Parties may wish to take note of the progress made in the implementation of the programmes of work and provide additional guidance to the Executive Secretary, as needed, on the further implementation of the work programmes.*

##### *A. Forest biological diversity*

*Paragraph 1 of the following draft decision is taken from paragraphs 6 and 7 of SBSTTA recommendation IX/1 (UNEP/CBD/COP/7/4, annex I). The second paragraph reflects a suggestion by the Executive Secretary in the revised annotated provisional agenda (UNEP/CBD/COP/7/1/Add.1/Rev.1). The Conference of the Parties is also invited to consider recommendations derived from the report of the ad hoc technical expert group established pursuant to decision VI/22, paragraph 26, to provide advice to the Executive Secretary and to the Subsidiary Body on Scientific, Technical and Technological Advice on the review of the implementation of the programme of work on forest biological diversity (UNEP/CBD/COP/7/17/Add.7, annexes I and II), which include:*

*(a) A proposal on how to review implementation of the expanded programme of work as part of the third national report; and*

*(b) An invitation to international organizations to provide information on their contribution to the implementation of the expanded programme of work on forest biological diversity at the national, regional, and global levels.*

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

1. *Invites* the Coordinator and Head of the Secretariat of the United Nations Forum on Forests, the Collaborative Partnership on Forests members and other relevant partners and organizations as specified in paragraph 19 (b) of decision VI/22 to provide further views on the preliminary assessment undertaken by the Executive Secretary on the relationship between the IPF/IFF proposals for action and the activities of the expanded programme of work on forest biological diversity (UNEP/CBD/SBSTTA/9/INF/31);

2. *Takes note* of the report of the first meeting of the Ad Hoc Technical Expert Group on the Review of Implementation of the Programme of Work on Forest Biological Diversity, held in Montpellier, France, from 24 to 27 November 2003 (UNEP/CBD/COP/7/INF/20).

##### *B. The biological diversity of dry and sub-humid lands*

*Paragraphs 1-6 of the following draft decision are taken from paragraph 2 of recommendation VIII/4 of the Subsidiary Body on Scientific, Technical and Technological Advice.*

*Paragraph 7 echoes the call by the Subsidiary Body in paragraph 3 of the same recommendation. Paragraphs 8 and 9 have been added as suggestions by the Executive Secretary.*

*The Conference of the Parties*

1. *Adopts* the proposed process for the periodic assessment of the status and trends of biological diversity in dry and sub-humid lands, as described in table 1 below, taking into account national laws, policies and programmes and recognizing the urgency for action in those countries severely affected by land degradation, focusing on strengthening the capacities of developing countries and countries with economies in transition to conduct assessments at the national level and build on the knowledge and structures of ongoing global assessments, as well as national assessments;

2. *Adopts* the proposal prepared by the Executive Secretary for the further refinement of the programme of work and suggesting collaborating partners as indicated in the annex to the present recommendation;

3. *Requests* the Executive Secretary to ensure that the parts of the programme of work relating to other thematic programmes of work of the Convention are taken into account when developing and reviewing these programmes of work;

4. *Requests* the Executive Secretary, in consultation with Parties, to develop targets for the implementation of the programme of work, taking into account especially national action programmes to combat desertification (NAPs), the Global Strategy for Plant Conservation, the Global Taxonomy Initiative, the Strategic Plan of the Convention, as well as the Plan of Implementation of the World Summit on Sustainable Development, for consideration by Subsidiary Body on Scientific, Technical and Technological Advice. Such a process could follow the approach taken in the development of the Global Strategy for Plant Conservation (decision VI/9, annex);

5. *Requests* the Executive Secretary, in collaboration with the Secretariats of the other Rio Conventions and other biodiversity-related conventions, to further develop mechanisms for facilitating the synergistic implementation of these conventions, especially at the national level, as described in sections III and IV of the note by the Executive Secretary on dry and sub-humid lands prepared for the eighth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/8/10). Such mechanisms could include:

- (a) Joint work programmes;
- (b) The activities of the joint liaison group of the three Rio conventions and potential additional members, and
- (c) Joint activities with a focus on several elements:
  - (i) Integration of activities related to national biodiversity strategies and action plans with national action programmes for the Convention to Combat Desertification, national adaptation programmes of action under the United Nations Framework Convention on Climate Change, Ramsar wetland policies and other relevant programmes, including national strategies for sustainable development and poverty reduction;
  - (ii) Capacity-building, information systems, institutional arrangements and joint planning activities between the coordinating bodies and focal points of the conventions;

- (iii) Development of criteria for synergy projects and creation of “good practice” synergy projects;
- (iv) Sound preparation, formulation of objectives, organization and follow-up of national and regional synergy workshops;
- (v) Training courses and awareness-raising among relevant stakeholders;
- (vi) Consultation, decision-making and implementation processes with the full participation of relevant stakeholders, including indigenous peoples and local communities, non-governmental organizations and the private sector.

This process should take into account existing experience, as documented by, *inter alia*, the Committee for the Review of the Implementation of the Convention to Combat Desertification (CRIC), and the “Operational Guidelines for Expedited Funding of National Self Assessment of Capacity-building Needs” of the Global Environment Facility;

6. *Further requests* the Executive Secretary, in collaboration with the other Rio and other biodiversity-related conventions, to facilitate the review of the national biodiversity strategies and action plans under the Convention on Biological Diversity, in order to harmonize them with the national action programmes under the Convention to Combat Desertification, with a focus on poverty alleviation and intersectoral integration;

7. *Recognizes* that the effective implementation of this programme of work is subject to the availability of financial, technological and human resources, and *urges* Parties, countries and international organizations that are in a position to do so to provide the necessary support;

8. *Takes note* of the reports of the Millennium Assessment and the Land Degradation Assessment in drylands project (LADA) of the Food and Agriculture Organization of the United Nations on how they address the assessment needs of the programme of work on biological diversity of dry and sub-humid lands, and especially ways to strengthen national efforts to conduct assessments;

9. *Welcomes* the joint work plan between the United Nations Convention to Combat Desertification and the Convention on Biological Diversity (UNEP/CBD/COP/7/INF/28) and *encourages* Parties to contribute to the implementation of its components.

**Table 1.** Proposed process for the periodic assessment of status and trends of biological diversity in dry and sub-humid lands (Phases II-IV will depend on the recommendations made after completion of phase I).

<b>Phase I:</b> 2002-2004 (COP7)	<ol style="list-style-type: none"> <li>1. Invite LADA and the Millennium Assessment to investigate how the needs of the dry and sub-humid lands could be integrated into the ongoing assessments, emphasizing proposals and ways to strengthen national efforts to conduct assessments.</li> <li>2. Develop proposals for mechanisms(s) linking national assessment to regional/global assessment/report processes.</li> <li>3. Participatory development of draft guidelines for national assessments, including indicators initiated.</li> </ol>
<b>Phase II:</b> 2004-2006 (COP8)	<ol style="list-style-type: none"> <li>4. Agree to final guidelines for national assessments and adoption for implementation.</li> <li>5. Implementation mechanism agreed upon and functional.</li> </ol>
<b>Phase III:</b> 2006-2012	<ol style="list-style-type: none"> <li>6. Data collection, processing and communication according to agreed guidelines and mechanisms.</li> <li>7. In 2010, Parties report on WSSD biodiversity-related targets, as appropriate.</li> <li>8. Global assessment report on status and trends of biological diversity, including information from national assessments.</li> </ol>
<b>Phase IV:</b> 10-year periodic assessment reports	<ol style="list-style-type: none"> <li>9. Periodic ten-year report based on continuous assessments at national level and up-scaling.</li> </ol>

## Annex

**SYNTHESIS TABLE OF EXPECTED OUTCOMES AND TIMEFRAMES, POTENTIAL ACTORS, AND INDICATORS OF PROGRESS IN THE IMPLEMENTATION OF THE PROGRAMME OF WORK**

Activity	Expected Outcomes	Time-frame	Key actors§	Status	Progress Indicators	Date
<b>PART A: ASSESSMENTS</b>						
<b>Activity 1.</b> Assessment of status and trends	<ul style="list-style-type: none"> <li>Comprehensive review and assessment report on status and trends of biological diversity in dry and sub-humid lands</li> </ul>	2012	FAO, LADA, MA, Parties, SCBD	Planned	Preliminary assessment Draft full assessment	2006 2010
<b>Activity 2.</b> Areas of particular value and/or under threat	<ul style="list-style-type: none"> <li>Review and assessment of areas of value/under threat</li> </ul>	2012	World Heritage Centre, MAB Secretariat, WCPA, IUCN, WCMC, Parties	Planned	Draft map and assessment report	2008
<b>Activity 3.</b> Indicators	<ul style="list-style-type: none"> <li>Indicators for assessment of status and trends fully operational</li> </ul>	2012	FAO, LADA, MA, Parties, SCBD.	In progress	Draft set of indicators	2004
<b>Activity 4.</b> Knowledge on processes that affect biodiversity	<ul style="list-style-type: none"> <li>Reports and publications on the structure and functioning of dry and sub-humid lands ecosystems, including the potential impact of climate change and poverty on dry and sub-humid lands</li> </ul>	Ongoing	Various research and development institutes, including local knowledge systems, Parties	Ongoing	Draft summary publication AHTEG on biodiversity and climate change	2006 2003
<b>Activity 5.</b> Benefits derived from the biological diversity	<ul style="list-style-type: none"> <li>Compilation of information on local and global benefits</li> </ul>	2012	Various research and development institutes, including local knowledge systems, Parties. Parties, various research and development institutes, including local knowledge systems Parties, collaborating partners, SCBD	In progress	AHTEG on dry and sub-humid lands Draft publication	2002 2006
	<ul style="list-style-type: none"> <li>Assessment of the socio-economic impact of biodiversity loss and linkage to poverty</li> </ul>	2006		In progress	AHTEG on dry and sub-humid lands Draft report	2002 2005
	<ul style="list-style-type: none"> <li>Case-studies on inter-linkages between biodiversity loss and poverty</li> </ul>	2006		Planned	Submission of case-studies from Parties	2005
<b>Activity 6.</b> Best management practices	<ul style="list-style-type: none"> <li>Case-studies including consideration of traditional knowledge</li> <li>Guidelines for assessment of good practices</li> <li>Case-studies of applied Ecosystem Management Approach</li> </ul>	2006	Parties, collaborating partners, SCBD SCBD, Parties	Planned	Submission of case-studies from Parties Draft guidelines	2005
		2004		Planned		2003
<b>PART B: TARGETED ACTIONS</b>						
<b>Activity 7.</b> Measures for conservation and sustainable use						

Activity	Expected Outcomes	Time-frame	Key actors§	Status	Progress Indicators	Date
(a) Protected areas	<ul style="list-style-type: none"> <li>Guidelines on establishment of “adequate and effective protected areas networks”</li> <li>Additional protected area established</li> </ul>	2008 Ongoing	WCPA, Environmental conventions, IUCN, World Heritage, MAB Sec. Parties	In process Ongoing	Protected areas report	2012
(b) Rehabilitation and/or restoration	<ul style="list-style-type: none"> <li>Report and database on appropriate technologies and transfer mechanisms</li> <li>Evaluation of effectiveness of measures at test sites</li> <li>Measures implemented through NBSAPs and NAPs</li> </ul>	2002 Ongoing	Norway, SCBD, Parties and various collaborating partner Parties	Ongoing Proposed <sup>1/</sup> Proposed	Workshop on transfer of technologies Sites established; exchange visits between affected countries Explicit rehabilitation Project implemented worldwide	2003 2008 2008
(c) Invasive alien species	<ul style="list-style-type: none"> <li>Increased information and information exchange on invasive alien species</li> <li>Guidelines and mechanisms for best management; integration through NBSAPs</li> </ul>	Ongoing 2008	Parties, supported by GISP Parties, GISP	In progress In progress	Workshops, CHM includes explicit information Draft guidelines	2008 2006
(d) Production systems	<ul style="list-style-type: none"> <li>Operational guidelines on sustainable use, good farming practices, integrated production system and drought preparedness</li> <li>Progress report on development of incentives, including “fair and equitable” markets</li> </ul>	2004 2004	Parties, FAO, CGIAR centres, WB, various research institutes Parties	In progress Proposed	Draft guidelines Draft resource paper; 3 <sup>rd</sup> National Reports	2003 2006
(e) Water resources	<ul style="list-style-type: none"> <li>Guidelines on management and sustainable use of water resources implemented</li> <li>Case-studies on best practices available</li> </ul>		Parties, Ramsar and other environmental conventions, GIWA, research institutes Parties	Proposed Proposed	Guidelines drafted Submission of case-studies by Parties	2008 2007
(f) <i>In situ</i> and <i>ex situ</i> conservation	<ul style="list-style-type: none"> <li>Guidelines for <i>in situ</i> and <i>ex situ</i> conservation and management needs based on best practices implemented</li> <li>Capacities of zoos and seedbanks and other institutions for <i>ex situ</i> conservation strengthened</li> </ul>		WCPA, IUCN, WWF, CGIAR centres, Parties Parties, regional centres	Proposed Proposed	Draft guidelines Integration into NBSAP and NAP	2006 2008

<sup>1/</sup> The timeframes for **proposed** outcomes will have to be agreed to in consultation with Parties. This could be part of paragraph 4 of the draft decision, which requests the Executive Secretary, in consultation with Parties, to develop targets for the implementation of the programme of work.

Activity	Expected Outcomes	Time-frame	Key actors§	Status	Progress Indicators	Date
(g) Economic valuation and adaptive technologies	<ul style="list-style-type: none"> <li>Study on economic valuation of goods and services in areas of specific value for biodiversity</li> <li>Guidelines for the use of economic instruments implemented through NBSAP</li> </ul>		Parties, WB, various research and development institutes	Proposed	Draft report by AHTEG	2002
			Parties, various research and development institutes	Proposed	Draft guidelines	2006
(h) Plant and animal biomass	<ul style="list-style-type: none"> <li>Case studies on best practices</li> <li>Incorporation of lessons learnt in NBSAPs and NAPs</li> </ul>		Parties, various collaborating partners	Proposed		
			Parties	Proposed		
(i) Training, education and public awareness	<ul style="list-style-type: none"> <li>Training programmes nationally and regionally in place</li> <li>Public awareness campaigns on the importance of dry and sub-humid lands biodiversity</li> </ul>		Parties, regional centres of excellence, TPN of UNCCD, GM	Proposed	Training workshops per year per region	2006
			Parties, CBD, UNCCD	Proposed	Year of biodiversity in dry and sub-humid lands	
(j) Information on sustainable use	<ul style="list-style-type: none"> <li>Development of information exchange mechanisms</li> </ul>		Parties, sub-regional organizations, TPNs	Planned, ongoing	TPNs discuss 2 themes relevant to PoW per year	2008
(k) Promotion of research and development programmes	<ul style="list-style-type: none"> <li>Research priorities established</li> <li>Pilot projects developed and implemented on local level</li> </ul>		Parties, research and development institutes	Planned, ongoing	Partnerships for collaborative research	2006
			Parties	Planned, ongoing	Demonstration sites per region per year	
(l) Integrated catchment management and endangered species	<ul style="list-style-type: none"> <li>Case-studies on (i) integrated catchment management, (ii) migratory species corridors, (iii) conservation of rare and endangered species</li> </ul>		Parties	Proposed	Case-studies per region documented	2006
(m) Cooperation with relevant conventions	<ul style="list-style-type: none"> <li>Memoranda of Cooperation (MoC) with relevant conventions</li> <li>Joint work programme with relevant conventions</li> </ul>		Various conventions	In progress		
			Various conventions	In progress	Synergy workshops	Pilot synergy projects
<b>Activity 8. Promotion of responsible resource management</b>						
(a) Local institutional structures; and indigenous and local techniques	<ul style="list-style-type: none"> <li>Case-studies in place and success stories documented and shared</li> <li>Broad implementation through NBSAPs and NAPs</li> </ul>		Parties	Proposed	Regional level exchange	2006
			Parties, GM	Proposed	Visit programmes in place	
(b) Decentralization of management	<ul style="list-style-type: none"> <li>Case-studies and success stories of community-based management of resources</li> <li>Case studies on the effect of users' access to land and water resources</li> </ul>		Parties	Proposed	Publication of case-study; exchange visits to sites	2006
(c) Institutions for land tenure and conflict resolution	<ul style="list-style-type: none"> <li>Case-studies and success stories of strengthened national organization structures</li> </ul>		Parties	Proposed	Workshops demonstrating case examples	2008

Activity	Expected Outcomes	Time-frame	Key actors§	Status	Progress Indicators	Date
(d) Transboundary issues	<ul style="list-style-type: none"> <li>Guidelines on transboundary collaboration implemented through NBSAPs and NAPs</li> <li>Increased number of bilateral and subregional collaborative arrangements in place</li> </ul>		Parties, WCPA, IGOs Parties	Proposed Ongoing	Draft guidelines	2008
(e) Policies and instruments	<ul style="list-style-type: none"> <li>Mechanisms for collaboration between respective national focal points developed</li> <li>Case-studies, guidelines for cross-sectoral integration, integration of NBSAPs and NAPs</li> </ul>		Parties, SCBD, UNCCD, GM Parties	In process In process	Synergy workshops held per annum Presentation of first case-studies (UNCCD CRIC 1)	2004 2002
<b>Activity 9. Support for sustainable livelihoods</b>						
(a) Income diversification	<ul style="list-style-type: none"> <li>Case-studies on income diversification</li> <li>Guidelines for income diversification opportunities implemented through NBSAP and NAPs</li> </ul>		Parties Parties	Proposed Proposed	Initial case-studies reported on Draft guidelines	2006 2008
(b) Sustainable harvesting	<ul style="list-style-type: none"> <li>Guidelines on best practices incorporated in NBSAPs, NAPs and other relevant policies</li> </ul>		Parties	Proposed	Draft guidelines	2004
(c) Innovations for local income generation	<ul style="list-style-type: none"> <li>Relevant case-studies made available</li> </ul>		Parties	Proposed	Workshops and exchange visits	2006
(d) Market development	<ul style="list-style-type: none"> <li>Products derived from sustainable use increasingly marketed</li> <li>Conducive market relationships developed</li> </ul>		Parties, WHO Parties, WHO	Proposed Proposed	Initial case-studies reported on	2006
(e) Fair and equitable sharing of the benefits	<ul style="list-style-type: none"> <li>Guidelines produced and integrated in NBSAPs, NAPs and other relevant policies</li> </ul>		Parties, SCBD	Proposed	Draft guidelines	2006

#### Indicative list of potential collaborators <sup>3/</sup> and abbreviations

CBD=Convention on Biological Diversity; CCD=Convention to Combat Desertification; CGIAR=Consultative Group on International Agricultural Research; CIAT=International Centre for Tropical Agriculture; CIFOR=Centre for International Forestry Research; CILSS=Permanent Inter-State Committee for Drought Control in the Sahel; CITES=Convention on International Trade in Endangered Species of Wild Fauna and Flora; CMS = Convention on the Conservation of Migratory Species of Wild Animals; CPF=Collaborative Partnership on Forests; FAO=Food and Agriculture Organization of the United Nations; GEF=Global Environment Facility; GISP=Global Invasive Species Project; GIWA=Global International Waters Assessment, GM=Global Mechanisms of the UNCCD, ICARDA=International Centre for Agricultural Research in the Dry Areas; ICRAF=International Centre for Research in Agroforestry; ICRISAT=International Crops Research Institute for the Semi-arid Tropics; IFAD=International Fund for Agricultural Development; IGBP=International Geosphere and Biosphere Programme; ITTA=International Institute for Tropical Agriculture; ILRI=International Livestock Research Institute; ILTER=International Long-term Ecological Research Network, IPGRI=International Plant Genetic Resources Institute; IPPC=Integrated Pollution and Prevention Control; IGO=Intergovernmental organization; IUCN=World Conservation Union; IUFRO=International Union of Forestry Research Organizations; LUCC=Land Use and Cover Change Programme (of IGBP); MA=Millennium Ecosystem Assessment; OIE=World Organization for Animal Health; OSS=Observatoire du Sahara et du Sahel; SADC=Southern African Development Community; TPN=Thematic Programme Networks of the CCD; UNDP=United Nations Development Programme; UNEP=United

<sup>3/</sup> As listed in the report of the Ad Hoc Technical Expert Group on Biodiversity of Dry and Sub-Humid Lands (UNEP/CBD/SBSTTA/8/INF/2) and updated based on a questionnaire sent out in August 2002.

Nations Environment Programme; UNEP-WCMC=World Conservation Monitoring Centre; UNESCO=United Nations Educational, Scientific and Cultural Organization; UNESCO-MAB=Man and Biosphere Project; UNFCCC=United Nations Framework Convention on Climate Change; UNFF=United Nations Forum on Forests; UNITAR=UN Institute for Training and Research; WB=World Bank; WCPA=World Commission on Protected Areas; WHC=World Heritage Centre (UNESCO); WIPO=World Intellectual Property Organization; WMO=World Meteorological Organization; WRI=World Resource Institute; WTO=World Trade Organization; WWF=World Wide Fund for Nature

### **C. Agricultural biological diversity**

*Paragraph 4 of the following draft decision is taken from paragraph 2 of recommendation IX/2 of the Subsidiary Body on Scientific, Technical and Technological Advice. The other paragraphs are proposed by the Executive Secretary. With respect to genetic use restriction technologies, reference should also be made to section C of the draft decisions on Article 8(j) and related provisions (see page 6 below). The Conference of the Parties is **also invited to provide further guidance as it may deem appropriate regarding the implementation of decision VI/5.***

#### *The Conference of the Parties*

1. *Takes note* of the progress made in the implementation of decision VI/5, on the programme of work on agricultural biological diversity;
2. *Notes* the postponement of the preparation of the final report of the comprehensive assessment of agricultural biological diversity and related milestones by two years (UNEP/CBD/COP/7/11, para. 66);
3. *Takes note* of the report of the Ad Hoc Technical Expert Group on the Potential Impacts of Genetic Use Restriction Technologies on Smallholder Farmers, Indigenous and Local Communities and Farmers' Rights, established in paragraph 21 of decision VI/5, which met in Montreal from 19 to 21 February 2003 (UNEP/CBD/SBSTTA/9/INF/6);
4. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to consider the report of the Ad Hoc Expert Group on Genetic Use Restriction Technologies at its tenth meeting with a view to providing advice to the Conference of the Parties at its eighth meeting;
5. *Takes note with appreciation* of the report of the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture on the potential impacts of genetic use restriction technologies on agricultural biodiversity and agricultural production systems (UNEP/CBD/COP/7/INF/31), prepared pursuant to paragraphs 20 and 21 of decision V/5;
6. *Takes note also* of the notes by the Executive Secretary on the impacts of trade liberalization on agricultural biodiversity (UNEP/CBD/COP/7/INF/14 and 15) prepared pursuant to paragraph 17 of decision VI/5.

**18. Thematic programmes of work—review, further elaboration and refinement: biological diversity of inland water ecosystems and marine and coastal biological diversity**

**A. Biological diversity of inland water ecosystems**

*The following draft decision is taken from recommendation VIII/2 of the Subsidiary Body on Scientific, Technical and Technological Advice. It should be noted that the proposed outcome-oriented targets for the proposed revised programme of work (UNEP/CBD/COP/7/20/Add.4), which are intended for eventual incorporation into the revised programme of work on the biological diversity of inland water ecosystems, are reproduced under item 26 below, which deals, inter alia, with the overall approach for the integration of targets into the programmes of work (see page 6 below).*

*The Conference of the Parties*

*Review of the implementation of the programme of work*

1. *Notes* the progress made in the implementation of the programme of work on the biological diversity of inland water ecosystems, as reported in the note by the Executive Secretary (UNEP/CBD/COP/7/12);

2. *Recognizes* that a major shortcoming in the current review has been the limited availability of recent information on each of the activities of the programme of work, and further recognizing the usefulness of the national reports submitted to the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar, Iran, 1971) for a global status of the implementation of the programme of work on the biological diversity of inland water ecosystems, and, accordingly, *requests* the Executive Secretary to submit, for consideration at its eighth meeting, a proposal on ways and means for making the review more comprehensive;

3. *Also requests* the Executive Secretary to develop with the Secretariat of the Ramsar Convention a proposal, for consideration by the Conference of the Parties at its eighth meeting, on streamlining and improving the effectiveness of national reporting on inland water ecosystems, taking into account the work of the Task Force on Streamlining Forest-related Reporting established in the framework of United Nations Forum on Forests and other initiatives for harmonizing biodiversity-related national reports;

4. *Welcomes and encourages*, in particular, the synergy being developed between the Convention on Biological Diversity and the Ramsar Convention in implementing the programme of work, *notes* the progress made in the implementation of the joint work plans between the two conventions (UNEP/CBD/COP/7/INF/27) and *encourages* further activities aiming at avoiding overlaps in the work of both conventions;

5. *Requests* the Executive Secretary to continue developing and strengthening collaboration with other organizations, institutions and conventions as a way to streamline many of the activities contained in the programme of work, promote synergies and avoid unnecessary duplications;

6. *Notes* the need to adapt elements in the programme of work, as appropriate, in response to new developments or emergency matters and *decides* to carry out the next in-depth review of the programme of work no later than ten years from now, taking into account the multi-year programme of work of the Conference of the Parties and the 2010 target in the Strategic Plan;

*Revised programme of work*

7. *Recognizes* that the review of the implementation of the programme of work identified gaps and constraints that need to be addressed to meet the objectives of the Convention and, accordingly, *adopts* the revised programme of work proposed in the annex to the present decision, which addresses the identified gaps and constraints with its three programme elements on:

- (a) Conservation and sustainable use of biodiversity, including application of the ecosystem approach;
- (b) Enabling activities addressing many of the socio-economic gaps identified in the review of the programme of work; and
- (c) Monitoring and assessment;

8. *Recommends* that the Strategic Plan of the Convention on Biological Diversity and the Plan of Implementation of the World Summit on Sustainable Development, and their target of 2010 to reduce significantly the rate of biodiversity loss, should guide the implementation of the revised programme of work on inland water biological diversity;

9. *Recognizes* the need for resources, human, technological and financial, to implement effectively the activities under the revised programme of work;

10. *Urges* Parties, other Governments and organizations to incorporate the objectives and relevant activities of the programme of work in their biodiversity strategies and action plans, wetland policies and strategies and to implement them and further promote coordination and cooperation between national actors responsible for inland water ecosystems and biological diversity;

11. *Recognizes* the presence of inland waters in agricultural lands, forests, dry and sub-humid lands, and mountains, and the ecological connectedness between inland waters, estuaries and inshore coastal areas and, accordingly, *encourages* Parties, other Governments and organizations to ensure cross-referencing to, and coherence with, the other thematic programmes of work while implementing this programme of work;

12. *Urges* Parties to share information and lessons learned from the application of national and regional water frameworks;

13. *Invites* Parties to formulate and adopt outcome oriented targets and identified priorities for each activity, including timescales, taking into account the Strategic Plan of the Convention as well as the Strategic Plan of the Ramsar Convention for the period 2003-2008, the Global Strategy for Plant Conservation and the Plan of Implementation of the World Summit on Sustainable Development;

14. *Requests* the Executive Secretary to:

- (a) Compile, for consideration by the Conference of the Parties at its eighth meeting, information on mountain water supply and examples of transferable technologies relevant to the implementation of the proposed revised programme of work on inland water biodiversity also relevant to mountain ecosystems, and ensure that this information is considered in developing the programme of work on mountain biological diversity, and taking into account, *inter alia*, the work of the Committee on Forestry of the Food and Agriculture Organization of the United Nations;

- (b) Ensure that inland water ecosystem issues are fully incorporated, as appropriate, into all other thematic work programmes;

(c) Urge Parties and other countries to provide information on specific examples of successful policy interventions to conserve and sustainably use inland waters,

(d) Summarize this and related available information for the eighth meeting of the Conference of the Parties;

(e) In collaboration with relevant organizations and conventions, develop cost-effective means to report on implementation of the programme of work as measured against the global targets defined in the Strategic Plan, in the Global Strategy for Plant Conservation, and in the Plan of Implementation of the World Summit on Sustainable Development, essentially using indicators and assessments at the global level by international organizations, or existing data, and propose these to the Subsidiary Body prior to the eighth meeting of the Conference of the Parties;

*Assessment of status and trends, and rapid assessment*

15. *Takes note* of the status and trends of, and threats to, inland water biodiversity described in the note by the Executive Secretary (UNEP/CBD/SBSTTA/8/8/Add.1) and related information documents and give particular consideration to the listing of major threats to inland water biodiversity, and their underlying causes, as a basis for the identification of priorities for early action, recognizing that the relative importance of threats, and their underlying causes, will vary by region and country;

16. *Recognizes* the need for reliable baseline data and subsequent regular national assessments of the status and trends of, and threats to, inland water biodiversity as a basis for decision-making on the conservation and sustainable use of biodiversity of inland water ecosystems and, accordingly, *requests* the Executive Secretary, in collaboration with Parties and relevant organizations, in particular the Ramsar Convention, the Millennium Ecosystem Assessment and the Global International Waters Assessment (GIWA) among others, and making use of all available information, to prepare, for consideration by the Conference of the Parties at its eighth meeting:

(a) A work plan with defined timeframe, ways, means, and capacity needs for assessing the extent, distribution and characteristics, including, *inter alia*, physical, chemical and biological characteristics, of all types of inland water ecosystems at the global and regional scales;

(b) A report on information, and sources of information, on the trends of inland water biodiversity, definition of agreed baselines, relevant indicators and frequency of the assessments; and

(c) A work plan with ways and means for assessing processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of inland water biological diversity;

17. *Encourages* Parties, other Governments and relevant organizations to improve national, regional and global data on inland water ecosystem goods and services, their uses and related socio-economic variables; on species and all taxonomic levels; on basic hydrological aspects and water supply; and on the threats to which inland water ecosystems are subjected;

18. *Welcomes* the report of the Expert Meeting on Guidelines on Rapid Assessment of Biological Diversity of Inland Water Ecosystems (UNEP/CBD/SBSTTA/8/INF/5) and the guidelines annexed thereto;

19. *Invites* Parties, other Governments and relevant organizations to use and promote the application of the guidelines, in particular in the circumstances of small island developing States and in the territories of States in which inland water ecosystems suffer from ecological disaster;

20. *Recognizes* that the guidelines are focused on biological factors and, more specifically, on species-level assessments, and that they only touch on ecosystem-level and socio-economic and cultural aspects relating to the conservation and use of biological diversity, and *requests* the Executive Secretary, in collaboration with the Secretariat of the Ramsar Convention and other relevant organizations, to develop a complementary set of tools to assess the function and health of inland water ecosystems and the socio-economic and cultural values of biological diversity of inland waters to be presented as information paper to the Conference of the Parties at its eighth meeting;

21. *Requests* the Executive Secretary, in collaboration with relevant organizations, to strengthen capacities, including through practical training, for the application and, as needed, adaptation to local conditions of the guidelines, particularly in small island developing States and in the territories of certain States in which inland water ecosystems suffer from ecological disaster;

22. *Requests* the Executive Secretary to develop a monitoring and reporting system to assess the experiences gathered with respect to the usefulness and applicability of the guidelines, including through the national reports under the Convention on Biological Diversity;

23. *Encourages* Parties, other Governments and relevant organizations to support the active participation of indigenous and local communities in all stages of rapid assessments of biological diversity of inland waters traditionally occupied or used by these communities, consistent with the recommendations approved in annex II of decision VI/10;

24. *Emphasizes* the importance of inland water biodiversity for sustainable livelihoods and, accordingly, *request* the Executive Secretary, in collaboration with the Food and Agriculture Organization of the United Nations and other relevant organizations, to prepare a study on the linkages between conservation and sustainable use of inland water biodiversity and poverty alleviation/sustainable livelihoods, including human health considerations, for consideration by the Conference of the Parties at its eighth meeting. The study should contain proposals on ways and means to ensure that implementation of the programme of work contributes appropriately to poverty alleviation and sustainable livelihoods;

25. *Requests* the Executive Secretary to compile, in collaboration with relevant organizations and experts, existing information and disseminate it in a format that is useful to policy makers, recognizing that comprehensive information about the function of inland water ecosystems is invaluable to land and resource managers for planning, evaluating and executing plans and programmes. Emphasis should be put on assessment of, and research on, factors that affect ecosystem functions, the valuation of ecosystem functions, and remedial actions to restore ecosystem functions;

*Classification systems and criteria for the identification of important inland water biodiversity*

26. *Requests* those Parties to which this is appropriate, to adopt the Ramsar classification of wetlands as an interim classification system and use it as a framework for the initial inventorying of inland water ecosystems for the purpose of preparing indicative lists of inland water ecosystems important in the framework of the Convention, as requested in paragraph 12 of the programme of work on inland water biodiversity annexed to decision IV/4;

27. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to review the interim classification system prior to the tenth meeting of the Conference of the Parties, taking into account the multi-year programme of work, on the basis of experiences accumulated by Parties, other Governments and relevant organizations, taking into account the options described in the note by the Executive Secretary prepared for the eighth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/8/8/Add.4);

28. *Invites* the Secretariat of the Ramsar Convention and the Scientific and Technical Review Panel of the Ramsar Convention, in collaboration with the Executive Secretary and the Subsidiary Body on Scientific, Technical and Technological Advice, respectively, and in line with paragraph 30 of resolution VIII.10 of the Conference of the Parties to the Ramsar Convention, and with a view to achieving a more comprehensive coverage of components of biological diversity through the designation of Ramsar sites:

- (a) To further elaborate the guidelines on existing criteria for the following features:
  - (i) Wetlands supporting wild relatives of domesticated or cultivated species;
  - (ii) Wetlands that support species or communities and genomes or genes of economic, social, scientific or cultural importance;
  - (iii) Wetlands supporting species or communities that are important for research into the conservation and sustainable use of biological diversity including indicators of ecosystem health and integrity; and
  - (iv) Wetlands that support important populations of taxonomic groups with wetland-dependent species, including, *inter alia*, amphibians;
- (b) To consider the development of additional criteria, including, as appropriate, quantitative criteria;
- (c) To develop guidelines on the geographical scale at which criteria should be applied;

29. *Further invites* the Secretariat of the Ramsar Convention, in collaboration with the Executive Secretary of the Convention on Biological Diversity, to provide guidance, based on experiences, for the interpretation and application of the Ramsar criteria at the national and regional levels.

*Annex*

**PROPOSED REVISED PROGRAMME OF WORK ON INLAND WATER  
BIOLOGICAL DIVERSITY**

**CONTENTS**

	<i>Page</i>
Goal 1.1. To integrate the conservation and sustainable use of biological diversity into all relevant sectors of water-resource and river-basin management, taking into account the ecosystem approach .....	6
Goal 1.2: To establish and maintain comprehensive, adequate and representative systems of protected inland water ecosystems within the framework of integrated catchment/watershed/river basin management.....	6
Goal 1.3: To enhance the conservation status of inland water biological diversity through rehabilitation and restoration of degraded ecosystems and the recovery of threatened species .....	6
Goal 1.4: To prevent the introduction of invasive alien species that potentially threaten the biological diversity of inland water ecosystems, and to control and, where possible, eradicate established invasive species in these ecosystems .....	6

- Goal 2.1: To promote the integration of conservation and sustainable use of the biological diversity of inland water ecosystems into relevant sectoral and cross-sectoral plans, programmes, policies and legislation..... 6
- Goal 2.2: To encourage the development, application and transfer of low-cost appropriate technology, non-structural and innovative approaches to water resource management and the conservation and sustainable use of the biological diversity of inland water ecosystems, taking into account any decision taken by the Conference of the Parties at its seventh meeting on technology transfer and cooperation ..... 6
- Goal 2.3: To provide the appropriate incentives and valuation measures to support the conservation and sustainable use of inland water biological diversity, and to remove, or reform appropriately, all perverse incentives opposing such conservation and sustainable use of ecosystems[, and which include those subsidies to local production and/or consumption that distort international trade][consistent with decision VI/15] ..... 6
- Goal 2.4: To implement the programme of work for the Global Initiative on Communication, Education and Public Awareness (as adopted by the Conference of the Parties to the Convention on Biological Diversity in its decision VI/19), giving particular attention to matters relating to the conservation and sustainable use of the biological diversity of inland water ecosystems ..... 6
- Goal 2.5: Promote the involvement of local and indigenous communities and other relevant stakeholders in the conservation and sustainable use of biological diversity of inland water ecosystems ..... 6
- Goal 3.1: To develop an improved understanding of the biodiversity found in inland water ecosystems, how these systems function, their ecosystem goods and services and the values they can provide ..... 6
- Goal 3.2: To develop, based on inventories, rapid and other assessments applied at the regional, national and local levels, an improved understanding of threats to inland water ecosystems and responses of different types of inland water ecosystems to these threats..... 6
- Goal 3.3. To ensure projects and actions with the potential to impact negatively on the biological diversity of inland water ecosystems are subjected, in accordance with national legislation and where appropriate, to suitably rigorous impact assessments, including consideration of their potential impact on sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities ..... 6
- Goal 3.4. To introduce and maintain appropriate monitoring arrangements to detect changes in the status and trends of inland water biodiversity ..... 6

## INTRODUCTION

1. The revised and further elaborated programme of work for the conservation and sustainable use of the biological diversity of inland water ecosystems builds upon ongoing activities, uses existing knowledge, and also focuses attention on gaps in the institutional frameworks and the knowledge base upon which management decisions are made. It seeks to respond to the constraints identified by Parties through their national reports and to provide an integrated package of activities to address these obstacles and impediments. The activities within the programme of work are intended to be targeted towards, and address first and foremost, national priorities as prescribed through the national biodiversity strategy and action plan of each Party.
2. In furthering work under this programme duplication of effort should be avoided, and harmonization of respective programmes of work is to be pursued through strong coordination between the Convention on Biological Diversity and other relevant conventions and international bodies, with a particular view to the list of lead actors and collaborators. The programme and activities of the Ramsar Convention on Wetlands and its Scientific and Technical Review Panel (STRP) have been studied very carefully and actions were identified to optimize harmonization of activities of the Convention on Biological Diversity and its lead partner in the implementation of the programme of work on biological diversity of inland water ecosystems. This has been done in accordance with the third joint work plan between the Convention on Biological Diversity and the Ramsar Convention, as endorsed by the Conference of the Parties to the Convention on Biological Diversity in its decision VI/20.
3. The Executive Secretary is expected to continue and further develop collaboration with programmes, organizations, institutions, and conventions working with research, management and conservation of inland water biological diversity. These include (but are not limited to) the United Nations Convention to Combat Desertification (UNCCD), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on International Trade in Endangered Species (CITES), the Convention on the Conservation of Migratory Species of Wild Animals (CMS), the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention), BirdLife International, Conservation International, DIVERSITAS, the Global International Water Assessment, the Global Water Partnership, the WorldFish Center (formerly the International Center for Living Aquatic Resources Management, ICLARM), IUCN—the World Conservation Union, the Millennium Ecosystem Assessment, the World Water Council, Wetlands International, the World Wide Fund for Nature (WWF) and the World Bank.
4. The clearing-house mechanism should continue to be used as a primary vehicle to promote and facilitate the exchange of information and transfer of technology relevant to the conservation and use of inland water biological diversity.
5. The aim of the revised programme of work on biological diversity of inland water ecosystems is to further enhance the implementation of the Convention on Biological Diversity in this area at the catchment/watershed/river basin levels, and to fulfil its leadership role in international biodiversity issues relating to inland water ecosystems. [In accordance with Article 22 of the Convention, nothing in this programme of work shall lead to the creation or perpetuation of barriers to international trade or of trade-distorting domestic support measures in violation of international law, including trade-related agreements.]
6. The revised programme of work identifies goals, objectives and activities within the three programme elements: conservation, sustainable use and benefit-sharing; institutional and socio-economic enabling environment; and knowledge, assessment and monitoring. The programme of work is not

intended to be prescriptive for Parties, given that that national circumstances, capacities and priorities can and do vary greatly. As such, it should be viewed as providing a comprehensive and integrated framework of activities from which Parties can formulate their own nationally appropriate responses within the context of the national biodiversity and sustainable development strategies and action plans.

7. Throughout the programme of work it should be assumed that references to biological diversity, unless otherwise specified, refers to genomes and genes, species and communities, ecosystems and habitats. It should also be understood that the order of presentation within this programme of work does not convey any indication of relative priority.

8. Within the programme of work goals and objectives are listed under each programme element. Overarching these, and operating as fundamental guiding principles, are the following:

(a) To promote the conservation and sustainable use of inland water biological diversity including by appropriate transfer and development of technologies and by appropriate funding;

(b) To apply the ecosystem approach to the management of inland water ecosystems;

(c) To support indigenous and local communities to re-establish, develop and implement traditional approaches and/or adaptive management approaches to conserve and use sustainably the biological diversity of inland water ecosystems;

(d) To promote the fair and equitable sharing of benefits gained from the use of inland water genetic resources and associated traditional knowledge based on prior informed consent in accordance with national laws.

(e) To use and draw upon scientific, technical and technological knowledge of indigenous and local communities, with their participation and prior informed consent in accordance with national laws, in the implementation of all programme elements.

### **PROGRAMME ELEMENT 1: CONSERVATION, SUSTAINABLE USE AND BENEFIT-SHARING**

***Goal 1.1. To integrate the conservation and sustainable use of biological diversity into all relevant sectors of water-resource and river-basin management, taking into account the ecosystem approach***

#### ***Context and linkages***

*Article(s) of the Convention on Biological Diversity:* 6 (a) and (b)

*Strategic Plan objective(s):* 1.2, 1.5, 2.1, 3.1, 3.3 and 3.4

*Related element(s) of first programme of work:* paragraphs 8 (c), 9 (a) (i) and (ii), (b) (i), (g) (i) and (ii), (k), (m) (v)

*Intra and inter-programmatic linkages:*

Goal 1.2 (*In situ* conservation through protected areas)

Goal 2.1 (Integration with other sectors etc)

Goal 3.2- relating to identification of stressed inland water ecosystems.

*Plan of Implementation of the World Summit:* paragraphs 24, 32 (c), 40 (b) and 66 (b)

**Objectives**

(a) Adopt integrated land and catchment/watershed/river basin management approaches that incorporate the ecosystem approach, and the conservation and sustainable use of inland water ecosystems, including transboundary catchments, watersheds and river basins;

(b) Encourage the adoption of such integrated watershed, catchment and river basin management strategies to maintain, restore or improve the quality and supply of inland water resources and the economic, social, cultural, spiritual, hydrological, biological diversity and other functions and values of inland water ecosystems;

(c) Integrate into land-and water-use management approaches appropriate adaptive management and mitigation responses to combat, and prevent where possible, the negative impacts of climate change, El Niño, unsustainable land use and desertification on the biodiversity of inland water ecosystems.

**Activities of the Parties**

- 1.1.1. Assess current management approaches and strategies with regard to their integration of the ecosystem approach and sustainable use principles and adjust them as needed.
- 1.1.2. Apply the appropriate environmental water allocations (in terms of both quantity and quality of water) to maintain or improve the ecological functioning and productivity of priority inland water ecosystems, including those identified as most stressed (see activities 1.1.6 and 3.2.2 below). In so doing, consideration should also be given to the likely impacts of climate change and desertification, and factor in suitable mitigation and adaptive management approaches.
- 1.1.3. Identify and remove the sources, or reduce the impacts, of water pollution (chemical, thermal, microbiological or physical) on the biological diversity of inland waters.
- 1.1.4. Promote effective collaboration among scientists, local stakeholders, planners, engineers, and economists, and including indigenous and local communities with their prior informed consent (both within and among countries) in the planning and implementation of development projects to better integrate the conservation and sustainable use of inland water biological diversity with water resource developments.
- 1.1.5. Contribute to, and participate in, as appropriate, the River Basin Initiative (RBI) by sharing case studies, experiences and lessons learned on:
  - (a) Examples of watershed management that incorporate the conservation and sustainable use of inland water biological diversity with special reference to examples that use the ecosystem approach to meet water management goals; and
  - (b) Examples of water resource development projects (water supply and sanitation, irrigation, hydropower, flood control, navigation, groundwater extraction) that incorporate consideration of the conservation and sustainable use of biological diversity.
- 1.1.6. Introduce into national, catchment, watershed and river-basin level, and local water and land-use planning and management, adaptive management and mitigation strategies to combat and prevent, where possible, the negative impacts of climate

change, El Niño, unsustainable land-use practices and desertification, noting the ongoing work of the Ad Hoc Technical Expert Group on Biodiversity and Climate Change and the programme of work on dry and sub-humid lands.

- 1.1.7 Provide to the Executive Secretary advice on national experiences and approaches to promoting and implementing adaptive management and mitigation strategies for combating the impacts of climate change, El Niño and desertification.
- 1.1.8 Use, where appropriate, all available information on dams in order to ensure that the biological diversity of inland water ecosystems is fully taken into account in decision making on large dams.

### ***Supporting activities***

- 1.1.9. SBSTTA should:
  - (a) Review existing information on the allocation and management of water for maintaining ecological functions, including the relevant guidelines and technical papers on this topic, and prepare advice for the Conference of the Parties;
  - (b) Develop specific expert guidance on the management of the negative impacts of climate change, El Niño, unsustainable land-use practices and desertification on inland water biodiversity and appropriate adaptive management and mitigation responses, in collaboration with relevant partners.
- 1.1.10. The Convention Secretariat and the Secretariat of the Ramsar Convention should finalize the development and move into full implementation of the River Basin Initiative, with input from collaborating partner organizations, as appropriate.
- 1.1.11. The Ramsar Secretariat should be invited to bring to the attention of the Parties to the Convention on Biological Diversity relevant guidance or approaches adopted by the Ramsar Convention for the wise use of wetlands, such as:
  - (a) The Ramsar Convention guidelines for integrating wetland conservation and wise use into river basin management; and
  - (b) Model approaches to transboundary watershed or river basin management that can demonstrate effective mechanisms for cooperative management.
- 1.1.12. The Executive Secretary, in collaboration with relevant partners as appropriate, should compile and disseminate, including through the clearing-house mechanism of the Convention on Biological Diversity:
  - (a) Case-studies, lessons learned and best-practice guidance on ways and means to address all forms of water pollution at both the local and catchment scales;
  - (b) Examples of water resource development projects (water supply and sanitation, irrigation, hydropower, flood control, navigation, groundwater extraction) that incorporate biological diversity considerations, and which aim for sustainable use and maintenance of ecological processes; and
  - (c) The information provided by Parties in response to activity 1.1.7 above.

- 1.1.13. Also in collaboration with appropriate partners, the Executive Secretary should develop practical management guidance and associated instruments on sustainable use of inland water biodiversity, with special attention for sustainable tourism developments, sustainable use of freshwater fish stocks, and sustainable agricultural practices in association with inland water ecosystems, taking into account the ongoing work in response to the implementation of decisions V/24 and VI/13 of the Conference of the Parties, on sustainable use.
- 1.1.14. The Ramsar Secretariat should be invited to make available to Parties to the Convention on Biological Diversity, the Ramsar Convention guidelines for global action on peatlands, adopted at the eighth meeting of the Conference of the Contracting Parties to the Ramsar Convention.

### ***Main partners***

Ramsar Secretariat and STRP, RBI, UNESCO, International Water Management Institute (IWMI), subsidiary scientific bodies of UNFCCC, CCD and Ramsar, IPCC, WMO.

### ***Other collaborators***

Relevant international, regional and national organizations such as UNEP, International Council of Scientific Unions (ICSU), DIVERSITAS, IUCN, FAO.

***Goal 1.2: To establish and maintain comprehensive, adequate and representative systems of protected inland water ecosystems within the framework of integrated catchment/watershed/river basin management***

### ***Context and linkages***

*Article(s) of the Convention on Biological Diversity:* 8 (a), (b), (c), (d) and (e)

*Strategic Plan objective(s):* 1.2, 1.5, 2.1, 3.1, 3.3 and 3.4

*Related element(s) of first programme of work:* paragraph 8 (c) (vii)

*Intra and inter-programmatic linkages:*

Goal 3.3 (National inventories and assessment)

Goal 3.6 (Further elaboration of Annex I).

*Plan of Implementation of the World Summit:* paragraph 32 (c)

### ***Objective***

(a) Comprehensive, adequate and representative systems of protected inland water ecosystems (including all IUCN protected area categories, as appropriate) are developed and maintained within the framework of integrated catchment/watershed/river basin management.

(b) Where appropriate, transboundary, collaborative approaches to identifying, recognizing and managing protected inland water ecosystems are undertaken between neighbouring Parties.

### ***Activities of the Parties***

- 1.2.1 Provide, as appropriate, to the Executive Secretary, examples of protected area establishment and management strategies that are supporting the conservation and sustainable use of inland water ecosystems.

- 1.2.2. Undertake the necessary assessments to identify priority sites for inclusion into a system of protected inland water ecosystems, applying in particular the guidance on operationalizing Annex I of the Convention on Biological Diversity and its harmonized application with the criteria for identifying Wetlands of International Importance under the Ramsar Convention (see activity 3.2.3).
- 1.2.3. As part of activity 1.2.2 above, identify sites important for migratory species dependent on inland water ecosystems.
- 1.2.4. Develop incrementally, as the availability of resources and national priorities determine, and as part of an integrated catchment/watershed/river basin management approach, protected area systems (aquatic reserves, Ramsar sites, heritage rivers, etc.), which can contribute in a systematic way to the conservation and sustainable use of biological diversity, and to maintaining overall ecosystem function, productivity and “health” within each drainage basin.
- 1.2.5. As appropriate, work collaboratively with neighbouring Parties to identify, have formally recognized and managed, transboundary protected inland water ecosystems.
- 1.2.6. In undertaking activity 1.2.4 above, those Parties to the Convention on Biological Diversity that are also Parties to the Ramsar Convention should harmonize this work with the development of national networks of Wetlands of International Importance, which are ‘comprehensive and coherent’ in line with the Ramsar strategic framework for the future development of the List of Wetlands of International Importance.

***Supporting activities of the Executive Secretary***

- 1.2.7. Review and disseminate relevant information and guidance, including through the clearing-house mechanism, on national and transboundary experiences and case-studies to assist efforts in establishing and maintaining protected inland water ecosystems considering *inter alia*:
  - (a) The range of resource materials and guidance available through the IUCN Commission on Protected Areas;
  - (b) The Ramsar Convention strategic framework for the future development of the List of Wetlands of International Importance, and its specific guidance in relation to the identification and designation of certain inland water ecosystem types such as karsts and subterranean hydrological systems, peatland, wet grasslands etc;
  - (c) The new Ramsar guidelines on management planning for Ramsar sites and other wetlands, adopted by the Conference of the Contracting Parties to the Ramsar Convention at its eighth meeting; and
  - (d) Advice and guidance available from the UNESCO Man and the Biosphere programme, International Hydrological Programme (IHP) and World Heritage Centre.
- 1.2.8. In collaboration with the secretariats of the Convention on Migratory Species and the Ramsar Convention identify opportunities for collaborative work on protected area networks for migratory species dependent on inland water ecosystems, through the respective bilateral joint work plans.

### ***Main partners***

Ramsar Secretariat and STRP, CMS secretariat and Scientific Council, UNESCO-MAB, World Heritage Centre, IUCN

### ***Other collaborators***

Relevant international, regional and national organizations and interested Parties.

***Goal 1.3: To enhance the conservation status of inland water biological diversity through rehabilitation and restoration of degraded ecosystems and the recovery of threatened species***

### ***Context and linkages***

*Article(s) of the Convention on Biological Diversity:* 8 (f), 9 (c), 10 (d)

*Strategic Plan objective(s):* 1.2, 1.5, 2.1, 3.1, 3.3 and 3.4

*Related element(s) of first programme of work:* paragraph 8 (c) (iv)

*Intra and inter-programmatic linkages:*

Goal 1.1 (Integrating biodiversity conservation into water resource and river basin management). Apart from the clear benefits for biodiversity conservation that come from restoring or rehabilitating inland water ecosystems, there is the added benefit gained for overall “health” of catchment and river basins from reinstating these part of the natural water infrastructure.

Goal 1.2 (Protected areas)

Goal 2.1 (Integration into other sectors, etc)

*Plan of Implementation of the World Summit:* paragraphs 26 (c) and 37 (d)

### ***Objectives***

- (a) Degraded inland water ecosystems are rehabilitated or restored, where appropriate and possible.
- (b) The conservation status of threatened species reliant on inland water ecosystems is improved.

### ***Activities of the Parties***

- 1.3.1. Provide, as appropriate, to the Executive Secretary case-studies, national experiences and any relevant local, national or regional guidance relating to the successful rehabilitation or restoration of degraded inland water ecosystems, and the recovery of threatened species.
- 1.3.2. Identify nationally priority candidate inland water ecosystems and/or sites for rehabilitation or restoration and proceed to undertake such works, as resources allow. In identifying potential candidate sites, consider the relative conservation status of the threatened species involved, and the potential gains for the overall ecosystem functioning, productivity and “health” within each drainage basin (see activity 1.2.4).
- 1.3.3. Identify nationally and then act, as appropriate, to improve the conservation status of threatened species, including migratory species, reliant on inland water ecosystems, (see activities 1.2.3 and 1.2.4), taking into account the programme of work on

/...

restoration and rehabilitation of degraded ecosystems being developed by the Conference of the Parties as part of its multi-year programme of work up to 2010.

### ***Supporting activities***

- 1.3.4. SBSTTA to prepare guidelines on promoting rehabilitation and restoration of inland water ecosystems, on the basis of the Ramsar principles and guidelines on wetlands restoration, the findings of the IUCN Species Survival Commission regarding the conservation status of threatened species reliant on inland water ecosystems, and other information provided by Parties (see activity 1.3.1).

### ***Main partners***

Ramsar Secretariat and STRP, Wetlands International, CMS secretariat and Scientific Council, CMS-related agreements, IUCN, DIVERSITAS

### ***Other collaborators***

MAB and other relevant international, regional and national organizations.

***Goal 1.4: To prevent the introduction of invasive alien species that potentially threaten the biological diversity of inland water ecosystems, and to control and, where possible, eradicate established invasive species in these ecosystems***

### ***Context and linkages***

*Article(s) of the Convention on Biological Diversity:* 7 (c), 8 (h), 8 (l) and 14 (a)

*Strategic Plan objective(s):* 1.2, 1.5, 2.1, 3.1, 3.3, 3.4, 4.1, 4.3 and 4.4

*Related element(s) of first programme of work:* paragraphs 8(c)(vi) and 9(h)

*Intra and inter-programmatic linkages:*

Goal 2.1 (Integration with other sectors)

Goal 2.4 (CEPA)

Goals 3.2 and 3.3 (Assessments)

### ***Objective***

Through national biodiversity strategies and action plans and other relevant national and regional policies, programmes and plans undertake appropriate actions to prevent invasive alien species, which threaten the biological diversity of inland water ecosystems, from spreading and either control or eradicate them where invasion has already taken place.

### ***Activities of the Parties***

- 1.4.1. Promote and implement relevant guidelines and/or guiding principles in relation to invasive alien species making use of the expert guidance available such as through the “toolkit” of the Global Invasive Species Programme (GISP), the SCOPE of ICSU, and other sources referred to under the heading “Supporting activities” below.
- 1.4.2. Provide the Executive Secretary, as appropriate, with examples of the impacts of invasive alien species and of programmes used to control their introduction and

mitigate negative consequences on inland water ecosystems, especially at the catchment, watershed and river basin levels.

- 1.4.3. Raise awareness, as part of communication, education and public awareness-raising activities (see goal 2.4) of the possible problems and costs associated with the deliberate or accidental introduction of alien species, genotypes and genetically modified organisms that adversely affect aquatic biological diversity, taking into consideration the Cartagena Protocol on Biosafety to the Convention on Biological Diversity.
- 1.4.4. Within the context of transboundary catchments, watershed and river-basin management, and especially in relation to inter-basin water transfers, provide appropriate mechanisms to prevent the spread of invasive alien species.
- 1.4.5. Prevent the introduction of invasive alien species through aquaculture development and restore, where appropriate, indigenous wild-capture fisheries stocks in preference to other aquaculture developments.

### ***Supporting activities***

- 1.4.6. In collaboration with GISP, the Executive Secretary should implement the project on assessment of impacts of invasive alien species in inland waters <sup>4/</sup> and make proposals on future assessments for consideration by SBSTTA.
- 1.4.7. The Ramsar Secretariat should be requested to make available to Parties to the Convention on Biological Diversity the results of the consideration of the issue of invasive alien species in wetlands at the eighth meeting of the Contracting Parties to the Ramsar Convention.
- 1.4.8. The Executive Secretary should compile information provided by Parties pursuant to activity 1.4.2 above and other suitable information products including the FAO Code of Conduct for Responsible Fisheries and that prepared by the Ramsar Secretariat, Commonwealth Secretariat, and IUCN for the communications and awareness-raising project on African wetland invasive alien species.
- 1.4.9. CITES, the Ramsar STRP, TRAFFIC and other appropriate collaborators should be invited to advise Parties on the impact of the aquarium trade and the use of exotic pasture grasses on the conservation of biodiversity in inland water ecosystems and make the results of this study available to Parties.

### ***Partners***

GISP, ICSU-SCOPE.

### ***Other collaborators***

Secretariat and STRP of the Ramsar Convention and its STRP, CITES, TRAFFIC, Commonwealth Secretariat, FAO, IUCN, UNEP-WCMC, IWMI, ICLARM.

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<sup>4/</sup> The project brief was distributed at the seventh meeting of SBSTTA (UNEP/CBD/SBSTTA/7/3).

## **PROGRAMME ELEMENT 2: INSTITUTIONAL AND SOCIO-ECONOMIC ENABLING ENVIRONMENT**

**Goal 2.1:** *To promote the integration of conservation and sustainable use of the biological diversity of inland water ecosystems into relevant sectoral and cross-sectoral plans, programmes, policies and legislation*

### **Context and linkages**

*Article(s) of the Convention on Biological Diversity:* 6(a) and (b), 14.1 (b) and 18.1, 24.1 (d)

*Strategic Plan objective(s):* 1.2, 1.3, 1.5, 2.1, 3.1, 3.3, 3.4, 4.1, 4.3 and 4.4

*Related element(s) of first programme of work:* 9 (a) (i), 9 (e) (ii), 9 (g), 9 (j), 9 (l) (iii), 9 (m) (iv) and (v)

*Intra and inter-programmatic linkages*

Goal 3.5 (EIAs).

*Plan of Implementation of the World Summit:* paragraphs 32 (e) and 40 (b).

### **Objectives:**

(a) Relevant sectoral plans, programmes, policies and legislation are compatible with, and where appropriate supportive of, plans, policies, programmes and laws for the conservation and sustainable use of the biological diversity of inland waters.

(b) Strategic environmental assessments are operating to ensure national institutional arrangements (plans, programmes, policies and legislations) are supporting the implementation of this programme of work.

(c) The national implementation of relevant multilateral environment agreements, which relate to inland water biodiversity and ecosystems, is taking place in an integrated, efficient and effective way.

### **Activities of the Parties**

- 2.1.1. Undertake reviews and introduce reforms to policies, legal and administrative frameworks as necessary, in order to integrate the conservation and sustainable use of inland water biodiversity into the mainstream of government, business, and societal decision-making.
- 2.1.2. Apply, as urged by decision VI/7, the guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or processes (see goal 3.3) and in strategic environmental assessment[, which should not be used in violation of international law, including trade-related agreements].
- 2.1.3. Review institutional arrangements (policies, strategies, focal points and national reporting approaches) for national implementation of relevant multilateral environment agreements (see objective (c) above) and introduce reforms to streamline and, where appropriate, integrate implementation.
- 2.1.4. Provide the Executive Secretary with case-studies and information on lessons learned from policy, legal and institutional review and reform processes relating to inland water biodiversity and ecosystems, including measures taken to harmonize national implementation of the relevant multilateral environment agreements.

### ***Supporting activities of the Executive Secretary***

- 2.1.5. Identify and make available to Parties, guidance, case-studies and lessons learned, including those relating to the practical application of strategic environmental assessment, to assist in reviewing and fine-tuning institutional frameworks (plans, programmes, policies and legislations) for the conservation and sustainable use of the biological diversity of inland waters.
- 2.1.6. Continue to support and participate in the WCMC-led project on harmonizing information management between the five biodiversity-related Conventions (CBD, Ramsar, CITES, CMS and the World Heritage Convention).
- 2.1.7. Together with other relevant multilateral environmental agreements and interested Parties, seek the resources to establish working models (demonstration sites) showcasing the collaborative implementation of activities to achieve the complementary objectives of several multilateral environmental agreements.

### ***Main partners***

International Association for Impact Assessment (IAIA), Ramsar Secretariat and STRP, UNFCCC, UNCCD, CITES, CMS, World Heritage, UNESCO MAB, WCMC.

### ***Other collaborators***

International Water Management Institute (IWMI), other relevant international, regional and national organizations and interested Parties.

***Goal 2.2: To encourage the development, application and transfer of low-cost appropriate technology, non-structural and innovative approaches to water resource management and the conservation and sustainable use of the biological diversity of inland water ecosystems, taking into account any decision taken by the Conference of the Parties at its seventh meeting on technology transfer and cooperation***

### ***Context and linkages***

*Article(s) of the Convention on Biological Diversity:* 16 and 17

*Strategic Plan objective(s):*

*Related element(s) of first programme of work:* 9 (b) (i) and (ii) and 9 (c)

*Intra and inter-programmatic linkages:* All others.

*Plan of Implementation of the World Summit:* paragraphs 9 (e), 10 (a), 25 (a), (c) and (d), 26 (e) and (f), 28, 41 (a) and 54 (l)

### ***Objectives***

(a) Promote the development, documentation and transfer of appropriate technologies and approaches to water-resource management and the conservation and sustainable use of the biological diversity of inland water ecosystems.

(b) Apply, as appropriate, the technologies and approaches identified and made available in response to the above objective.

***Activities of the Parties***

- 2.2.1. Make available to the Executive Secretary information on appropriate technologies and effective approaches to managing biodiversity of inland water ecosystems for transfer to other Parties.
- 2.2.2. Encourage the use of low-cost (appropriate) technology, non-structural and innovative approaches, and, where appropriate and through prior informed consent in accordance with national laws traditional or indigenous practices for inland water biodiversity assessment and to meet watershed management goals, such as using wetlands to improve water quality, using forests and wetlands to recharge groundwater and maintain the hydrological cycle, to protect water supplies and using natural floodplains to prevent flood damage, and to use, whenever possible, indigenous species for aquaculture.
- 2.2.3. Encourage the development of preventative strategies such as cleaner production, continual environmental improvement, corporate environmental reporting, product stewardship and environmentally sound technologies to avoid degradation and promote maintenance, and, where applicable, restoration of inland water ecosystems.
- 2.2.4. Emphasize more effective conservation and efficiency in water use, together with non-engineering solutions. Environmentally appropriate technologies should be identified, such as low-cost sewage treatment and recycling of industrial water, to assist in the conservation and sustainable use of inland waters.

***Supporting activities of the Executive Secretary***

- 2.2.5. Through the clearing-house mechanism, make available to Parties information on appropriate technologies and approaches to water resource management and the conservation and sustainable use of the biological diversity of inland water ecosystems.
- 2.2.6. Through partnerships with relevant organizations seek to provide Parties with access to the latest technologies and innovative management approaches relating to programme elements 1 and 3 developed by the private sector, catchment-management bodies and others actively engaged in integrated water resource management.

***Main partners***

Challenge Programme on Water and Food of the Consultative Group for International Agricultural Research (CGIAR), the International Water Management Institute (IWMI), Ramsar Secretariat and STRP

***Other collaborators***

Relevant international, regional and national organizations and interested Parties.

**Goal 2.3:** *To provide the appropriate incentives and valuation measures to support the conservation and sustainable use of inland water biological diversity, and to remove, or reform appropriately, all perverse incentives opposing such conservation and sustainable use of ecosystems[, and which include those subsidies to local production and/or consumption that distort international trade][consistent with decision VI/15]*

**Context and linkages**

*Article(s) of the Convention on Biological Diversity:* 11

*Strategic Plan objectives:* 1.2, 1.3, 1.5, 3.1, 3.3 and 3.4

*Related element(s) of first programme of work:* paragraphs 8(d), 9(f)(i) and (iii), 9(m)

*Intra and inter-programmatic linkages:*

Goal 2.1 – in relation to strategic environmental assessment.

*Plan of Implementation of the World Summit:* Articles 26 (b) and 40 (k)

**Objectives**

(a) Apply for inland water biological diversity the proposals for the design and implementation of incentive measures (as endorsed through decision VI/15 of the Conference of the Parties to the Convention on Biological Diversity and contained in annex I of that decision).

(b) Encourage valuation of the full range of goods and services provided by inland water biological diversity and ecosystems in development proposals and with respect to applying incentive measures, and the identification and removal or modification of perverse incentives.

**Activities of the Parties**

2.3.1. Apply to inland water ecosystems the proposals for the design and implementation of incentive measures, including identification and removal or mitigation of perverse incentives, as endorsed by the Conference of the Parties in decision VI/15 and taking into account land tenure systems. In particular:

- (a) Review the range and effectiveness of national incentives, subsidies, regulations, and other relevant financial mechanisms, which can affect inland water ecosystems, whether adversely or beneficially;
- (b) Redirect, as appropriate, financial support measures, that run counter to the objectives of the Convention regarding the biological diversity of inland waters;
- (c) Implement targeted incentive and regulatory measures that have positive impacts on the biological diversity of inland waters;
- (d) Develop the policy research capacity needed to inform the decision-making process in a multidisciplinary and sectorally integrated manner;
- (e) Encourage the identification of the interdependence between conservation and sustainable use of inland water ecosystems and sustainable development;
- (f) At appropriate levels (regional, national, subnational and local), encourage the identification of stressed inland waters, the allocation and reservation of water for the maintenance of ecosystem functions, and the maintenance of

environmental flows as an integral component of appropriate legal, administrative and economic mechanisms.

- 2.3.2. In accordance with decision VI/15, submit case-studies, lessons learned and other information on positive or perverse incentives, land-use practices and tenure relating to inland water biodiversity to the Executive Secretary. Include within this submission national experiences and guidance in relation to water rights, markets and pricing policies.
- 2.3.3. Undertake comprehensive valuations of the goods and services of inland water biodiversity and ecosystems, including their intrinsic, aesthetic, cultural, socio-economic and other values, in all relevant decision-making across the appropriate sectors (see also goal 3.3 in relation to environmental, cultural and social impact assessments).

### *Supporting activities*

- 2.3.4. The Ramsar STRP should be invited to consider the proposals of the Conference of the Parties to the Convention on Biological Diversity for the design and implementation of incentive measures (as endorsed through decision VI/15) and identify ways and means to see this guidance developed further, specifically for inland water ecosystems.
- 2.3.5. SBSTTA should compile and disseminate studies on valuation of inland water ecosystem goods and services; and identify ways and means to further integrate the use of economic valuation into national inland water-related plans, programmes and policies (e.g., within integrated water management approaches) as a core component of policy reform.
- 2.3.6. In collaboration with key partners such as OECD, IAIA, IUCN, WWF, the Ramsar STRP and Bureau, the Executive Secretary should compile information on relevant guidance, resource kits and other information on incentive measures, including that relating to the development of incentives options through water rights, markets, pricing policies and land use and tenure. More specifically, he may wish to:
  - (a) Compile and disseminate case-studies and best practices on the use of incentive measures for the management of inland water ecosystem goods and services;
  - (b) Further explore the advantages and disadvantages of wetland mitigation banking, including the identification of institutional requirements, possible shortcomings and limitations;
  - (c) Further explore the respective advantages and disadvantages of tax/charge approaches as well as their interaction, including the identification of institutional requirements, possible shortcomings and limitations;
  - (d) Identify ways and means to further integrate the use of incentive measures into inland water-related plans, programmes and policies, including opportunities for the removal or mitigation of perverse incentives;

- (e) Further monitor recent discussions on incentive measures with a view to identifying other measures of specific use for the sustainable management of inland water ecosystems.

***Main partners***

Secretariat and STRP of the Ramsar Convention on Wetlands, IUCN, WWF, IWMI.

***Other collaborators***

Relevant international, regional and national organizations and interested Parties.

***Goal 2.4: To implement the programme of work for the Global Initiative on Communication, Education and Public Awareness (as adopted by the Conference of the Parties to the Convention on Biological Diversity in its decision VI/19), giving particular attention to matters relating to the conservation and sustainable use of the biological diversity of inland water ecosystems***

***Context and linkages***

*Article(s) of the Convention on Biological Diversity:* 13

*Strategic Plan Objectives:* 3.1, 3.4, and 4.1

*Related element(s) of first programme of work:* paragraph 9 (i)

*Intra and inter-programmatic linkages:*

Programme of work for the global initiative on communication, education and public awareness (as adopted by the Conference of the Parties in decision VI/19)

*Plan of Implementation of the World Summit:* paragraphs 7 (c) and 41 (d)

***Objectives***

(a) Comprehensive and well-targeted national programmes for communication, education and public awareness for the conservation and sustainable use of the biological diversity of inland water ecosystems are put in place and operate effectively;

(b) Key national, catchment/river basin and local-level decision makers and stakeholders are identified and appropriate communication mechanisms are established between them.

***Activities of the Parties***

2.4.1. Review the Global Initiative on Communication, Education and Public Awareness (CEPA) contained in decision VI/19 with a view to identifying how best to promote its application for supporting the implementation of the programme of work on inland water biological diversity, as appropriate, taking into account the second CEPA programme adopted by the Conference of the Contracting Parties to the Ramsar Convention at its eighth meeting.

2.4.2. In undertaking activity 2.4.1, identify case-studies and best practices and provide these to the Executive Secretary to be made available to other Parties.

2.4.3. Ensure effective working linkages between the focal points for the Convention on Biological Diversity, and the Ramsar (government and non-government) focal points for wetlands communication, education and public awareness, including the

amalgamation, at a national level, of communication, education and public awareness (CEPA) programmes under both conventions.

- 2.4.4. Identify key national, catchment/river basin and local level decision makers and stakeholders and establish appropriate communication and awareness raising mechanisms to ensure they are all informed of, and supporting through their actions, the implementation of this programme of work.
- 2.4.5. Undertake suitable initiatives to enhance awareness of the knowledge held by indigenous and local communities and the appropriate procedures, such as prior informed consent, for accessing such knowledge in accordance with national legislation on access to traditional knowledge.
- 2.4.6. Review, and as necessary reform, formal educational curricula to ensure they are operating to inform and educate about the conservation and sustainable use of the biological diversity of inland water biological diversity.

See also activity 3.1.5 in relation to the communication of research findings.

***Supporting activities of the Executive Secretary:***

- 2.4.7. In collaboration with key partners and collaborators, review the global initiative on communication, education and public awareness and develop and make available guidance for Parties on how best to promote its application for supporting this programme of work.
- 2.4.8. Pursuant to activity 2.4.2, make available to Parties case-studies, advice on best practice approaches, plus other sources of information and expertise in the field of communication, education and public awareness.

***Main partners***

UNEP, UNESCO, Ramsar Secretariat and CEPA Working Group, IUCN, Wetlands International

***Other collaborators***

Ramsar national focal points for communication, education and public awareness, other multilateral environmental agreements, relevant international, regional and national organizations.

***Goal 2.5: Promote the involvement of local and indigenous communities and other relevant stakeholders in the conservation and sustainable use of biological diversity of inland water ecosystems***

***Context and linkages***

*Article(s) of the Convention on Biological Diversity:* 8(j), 10, 17, 18

*Strategic Plan objectives:* 4.3

*Related element(s) of first programme of work:* 9 (l)

*Intra and inter-programmatic linkages:*

Goal 2.1 (Integration with other sectors etc)

Goal 3.3 (Cultural, environmental and social impact assessment)

*Plan of Implementation of the World Summit:* paragraphs 7(c), 24, 40 (b), (d) and 66 (a)

### ***Objective***

Relevant stakeholders, including representatives of local and indigenous communities, are involved, as far as appropriate, in the policy-making and in the planning, implementation and monitoring of the implementation of the programme of work.

### ***Activities of the Parties***

- 2.5.1. Involve, as far as possible and appropriate, local and indigenous communities in the development of management plans and in the implementation of projects that may affect inland water biological diversity.
- 2.5.2. Implement Article 8(j) as related to inland water biological diversity.
- 2.5.3. Encourage appropriate involvement and participation of affected parties, including end-users and local and indigenous communities, in policy-making, planning and implementation
- 2.5.4. Implement capacity-building measures to facilitate the involvement of indigenous and local communities and the application of indigenous knowledge, with their prior informed consent in accordance with national laws, in the management, conservation and sustainable use of biological diversity of inland water ecosystems.

### ***Activities of the Executive Secretary***

- 2.5.5. Promote the implementation of the programme of work and decisions of the Conference of the Parties on Article 8 (j) and related provisions.

### ***Main partners***

FAO and other relevant organizations.

## **PROGRAMME ELEMENT 3: KNOWLEDGE, ASSESSMENT AND MONITORING**

***Goal 3.1: To develop an improved understanding of the biodiversity found in inland water ecosystems, how these systems function, their ecosystem goods and services and the values they can provide***

### ***Context and linkages***

*Article(s) of the Convention on Biological Diversity:* 5, 7, 12, 14, 17, 18

*Strategic Plan objectives:* 1.2, 1.3, 2.1, 2.5, 3.1, 3.3 and 3.4

*Related element(s) of first programme of work:* paragraphs 1, 8 (a), 9 (d), 13, 15 (b), 16, 18 and 21

*Intra and inter-programmatic linkages:*

Goal 1.1 relates to implementation of the ecosystem approach

Goal 2.4 (Communication, education and public awareness) is relevant also.

This goal also has links with all other goals under programme element 3.

*Plan of Implementation of the World Summit:* paragraph 40 (c)

### ***Objectives***

- (a) Develop an improved picture of the status and trends of the biological diversity of inland waters, its uses, taxonomy and threats and ensure adequate dissemination of this information.
- (b) Establish, maintain and further develop expertise in inland water biological diversity and ecosystems.

### ***Activities of the Parties***

- 3.1.1. Encourage, and where possible support, applied research to gain an improved understanding of the status, trends, taxonomy and uses of biological diversity in inland water ecosystems, including transboundary systems where applicable.
- 3.1.2. Promote research to improve the understanding of the social, economic, political and cultural drivers within civil society that are directly impacting on the conservation and sustainable use of the biological diversity of inland waters.
- 3.1.3. In line with the Global Taxonomy Initiative (GTI) encourage studies aimed at improving the understanding of the taxonomy of the biological diversity of inland water ecosystems.
- 3.1.4. Support efforts to achieve international consistency and interoperability of taxonomic nomenclature, databases and metadata standards, as well as data-sharing policies.
- 3.1.5. As part of national communication, education and public awareness activities/programme (see goal 2.4), provide mechanisms for disseminating research findings to all relevant stakeholders, in a form which will be most useful to them. Make this same information available to the Executive Secretary to for sharing with other Parties.

### ***Supporting activities of the Executive Secretary***

- 3.1.6. Strengthen working partnerships with appropriate organizations and institutions which undertake, or can assist in mobilizing, research efforts leading to an improved understanding of the biodiversity and functioning of inland water ecosystems, and the practical application of the ecosystem approach.
- 3.1.7. As part of the agreed programme of work for the GTI, support and assist, in collaboration with suitable partners, the development of the series of regional guides to the taxonomy of freshwater fish and invertebrates (including adult terrestrial forms where appropriate) as an input to ecosystem monitoring for river and lake health (as specified by decision VI/8 of the Conference of the Parties to the Convention on Biological Diversity).
- 3.1.8. Further develop methods and techniques for the valuation of goods and services of inland water ecosystems, incentives and policy reform, and the understanding of ecosystem function.

### ***Main partners***

IUCN, UNEP, WCMC, WRI, FAO, World Fisheries Trust.

### ***Collaborators***

Global International Waters Assessment (GIWA), World Water Assessment Programme (WWAP), Millennium Ecosystem Assessment, FAO, Global Environmental Outlook, Global Biodiversity Information Facility (GBIF), WRI, Conservation International, and other relevant international, regional and national organizations.

***Goal 3.2: To develop, based on inventories, rapid and other assessments applied at the regional, national and local levels, an improved understanding of threats to inland water ecosystems and responses of different types of inland water ecosystems to these threats***

### ***Context and linkages***

*Article(s) of the Convention on Biological Diversity:* 7 (a), (c) and (d)

*Strategic Plan objectives:* 2.1, 3.1, 3.3 and 3.4

*Related element(s) of first programme of work:* paragraphs 6, 7, 8 (b), 9 (e) (i)-(iv) and 9 (m) (v), 12, 19 and 20

*Intra and inter-programmatic linkages:*

Goal 1.2 (Integrating biodiversity conservation into water management).

Goal 1.3 (*In situ* conservation through protected areas).

Goals 3.3, and 3.4.

*Plan of implementation of the World Summit:* paragraph 66 (c)

### ***Objectives***

(a) Assessments and inventories of inland water biodiversity undertaken, including the urgent identification of stressed inland water ecosystems and those mentioned in Annex I of the Convention.

(b) Rapid assessments, using suitable indicators, being undertaken for inland water biodiversity, in particular in small island States and States where inland water ecosystems suffer from ecological disasters.

(c) Build national capacity for undertaking the above-mentioned assessments through appropriate mechanisms.

See also goal 3.3 in relation to environmental, cultural and social impact assessments.

### ***Activities of the Parties***

3.2.1. In accordance with the priorities set down in national biodiversity strategies and action plans, undertake comprehensive national inventories and assessments of inland water biological diversity, which may be regarded as important in accordance with the terms of Annex I of the Convention. Furthermore, undertake assessments of threatened habitats and species, and conduct inventories and impact assessments of alien species in inland water ecosystems using the guidelines adopted by the Conference of the Parties in decision VI/7 A. The transboundary nature of many inland water ecosystems should be fully taken into account in assessments, and it may be appropriate for relevant regional and international bodies to contribute to such assessments.

- 3.2.2. Identify the most cost-effective approaches and methods to describe the status, trends and threats of inland waters and indicate their condition in functional as well as species terms.
- 3.2.3. Adopt an integrated approach in the assessment, management and, where possible, remedial actions of inland water ecosystems, including associated terrestrial and in-shore marine ecosystems. It should be noted that:
- (a) Assessments should involve all stakeholders, including indigenous and local communities, should be cross-sectoral and should make full use of indigenous knowledge based on prior informed consent;
  - (b) Suitable organisms should be identified as being particularly important in the assessment of inland water ecosystems. Ideally, such groups (taxa) should meet the following criteria:
    - (i) The group should contain a reasonable number of species with varied ecological requirements;
    - (ii) The taxonomy of the group should be reasonably well understood;
    - (iii) The species should be easy to identify;
    - (iv) The group should be easy to sample or observe so that density - absolute or as indices - can be assessed, used objectively and treated statistically;
    - (v) The group should serve as indicators of overall ecosystem health or indicators of the development of a key threat to ecosystem health; <sup>5/</sup>
  - (c) In view of the great economic importance of some groups (e.g. inland water fish species), and of the large gaps in taxonomic knowledge for many species, capacity-building in taxonomy should focus on inland water biodiversity of economic importance.
- 3.2.4. Apply the rapid assessment guidelines for national circumstances and adapt these as necessary to suit current and emerging priorities. In accordance with SBSTTA recommendation II/1, endorsed by the Conference of the Parties in decision III/10, assessments should be simple, inexpensive, rapid and easy to use. Such rapid assessment programmes will never replace thorough inventories.
- 3.2.5. Seek the resources, opportunities and mechanisms to build national capacity for undertaking assessments and inventories.
- 3.2.6. Promote the development of criteria and indicators for the evaluation of the impacts on inland water ecosystems from both physical infrastructure projects and watershed activities, including, *inter alia*, agriculture, forestry, mining and physical alteration, taking into consideration the natural variability of water conditions. <sup>6/</sup>
- 3.2.7. Assessments should be carried out with a view to implementing other articles of the Convention and, in particular, to addressing the threats to inland water ecosystems within an appropriate framework such as that included in paragraphs 39-41 of the note

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<sup>5/</sup> See decision IV/4, annex I, paragraph 15.

<sup>6/</sup> See decision IV/4, annex I, paragraph 9 (e) (ii).

by the Executive Secretary on options for implementing Article 7 of the Convention prepared for the third meeting of the Conference of the Parties (UNEP/CBD/COP/3/12). Of particular importance is the undertaking of environmental impact assessments on biological diversity of development projects involving inland water ecosystems.

### ***Supporting activities***

- 3.2.8. Make available to Parties guidelines for rapid, simple, inexpensive, and easy-to-use assessments of inland water biological diversity, taking into account the different types of such ecosystems and regional considerations, and giving special consideration to the priority needs of small island developing States, and States in which inland water ecosystems are suffering from ecological disasters.
- 3.2.9. In collaboration with the Ramsar Convention and other partners, make available to Parties guidance for:
- (a) Undertaking national inventories and assessments of inland water biological diversity;
  - (b) The identification of stressed inland water ecosystems;
  - (c) The national elaboration of Annex I of the Convention on Biological Diversity in relation to biological diversity of inland waters;
  - (d) A list of indicators grouped as driver, state, impact, and response to pressures on biological diversity of inland water ecosystems (taking into account the implementation of decision VI/7 B of the Conference of the Parties to the Convention on Biological Diversity, on monitoring and indicators).
- 3.2.10. Through continued collaboration with global and regional assessments including, but not restricted to, the Global International Waters Assessment (GIWA), the World Water Assessment Programme (WWAP), the Millennium Ecosystem Assessment, the FAO Fisheries Assessment, the Global Environmental Outlook (GEO), the Global Biodiversity Information Facility (GBIF), the report on State of the World's Plant and Animal Resources and the IUCN Freshwater Biodiversity Assessment and Red List of Threatened Species, seek to advance the generation of information on status and trends, which can assist and support global, transboundary and national priority setting processes for the conservation and sustainable use of inland water biodiversity.
- 3.2.11. Make available to Parties information on the various global and regional assessments referred to in activity 3.2.10, and how these may offer information to support the implementation of national biodiversity strategies and action plans in relation to inland waters.

### ***Main partners***

Ramsar Secretariat and STRP of the Ramsar Convention on Wetlands, Conservation International.

### ***Other collaborators***

UNESCO (SIDS programme), GIWA and WWAP, the Millennium Ecosystem Assessment and other relevant international, regional and national organizations particularly those active in the small island States. Relevant international, regional and national organizations.

**Goal 3.3.** *To ensure projects and actions with the potential to impact negatively on the biological diversity of inland water ecosystems are subjected, in accordance with national legislation and where appropriate, to suitably rigorous impact assessments, including consideration of their potential impact on sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities*

**Context and linkages**

*Article(s) of the Convention on Biological Diversity:* 14

*Strategic Plan objectives:* 2.1, 3.1, 3.3 and 3.4

*Related element(s) of first programme of work:* paragraphs 9 (e) (ii), 18, and 20

*Intra and inter-programmatic linkages:*

Goal 2.1 Strategic environmental assessments are a core part of integrating biodiversity conservation considerations into national institutions and programmes

This element of the inland waters programme of work is a further elaboration for the cross-cutting work on impact assessment being pursued by the Convention.

*Plan of Implementation of the World Summit:* paragraph 37

**Objectives**

(a) Undertake environmental impact assessments, in accordance with national legislation and where appropriate, for all projects with the potential to impact on the biological diversity of inland water ecosystems, ensuring that these take into account the “inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse”. <sup>7/</sup>

(b) Conduct cultural, environmental, and socio-economic impact assessments, in accordance with national legislation and where appropriate, regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities, in accordance with decision VI/10.

**Activities of the Parties:**

3.3.1. Taking into account decision VI/7 A of the Conference of the Parties to the Convention on Biological Diversity, on guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or processes and in strategic environmental assessment, and decision VI/10, on Article 8 (j) and related provisions, including its annex II, containing recommendations for the conduct of cultural, environmental, and social impact assessments regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities:

(a) Apply environmental impact assessments on water-development projects, aquaculture and watershed activities including agriculture, forestry and mining, and best predictions with well designed sampling schemes that can adequately distinguish the effects of anthropogenic activities from natural processes;

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<sup>7/</sup> Paragraph 1 (a) of the annex to decision VI/7 A.

- (b) Apply environmental impact assessments which assess the impacts, not only of individual proposed projects, but also the cumulative effects of existing and proposed developments on the watershed, catchment or river basin; and
  - (c) Incorporate, where appropriate, environmental flow assessments into impact assessment processes for any projects with the potential to have negative effects on inland water ecosystems, and also undertake baseline ecosystem assessments in the planning phase to ensure that the necessary basic data will be available to support the environmental impact assessment process and the development of effective mitigation measures if necessary.
- 3.3.2. Apply the recommendations for the conduct of cultural, environmental, and social impact assessments regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities.
- 3.3.3. For transboundary inland water ecosystems, undertake, where feasible and appropriate and by agreement between the Parties concerned, collaborative impact and environmental flow assessments when applying the Convention's guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or processes and in strategic environmental assessment.

#### ***Supporting activities of the Executive Secretary***

- 3.3.4. Collaborate with the International Association for Impact Assessment (IAIA) and other relevant organizations to contribute to the implementation of decision VI/7 A on further development and refinement of the guidelines, particularly to incorporate all stages of the environmental impact assessment processes taking into account the ecosystem approach.
- 3.3.5. Compile:
- (a) Information on impact assessment and other methodologies that address inland water biological diversity issues in an adaptive management framework; and
  - (b) Examples of the impacts of invasive alien species and of programmes used to control their introduction and mitigate negative consequences on inland water ecosystems especially at the watershed, catchment and river-basin level.

#### ***Main partners***

IAIA, Ramsar Convention Secretariat and STRP, IUCN, Conservation International.

The Ramsar Secretariat is expected to share with the Executive Secretary of the Convention on Biological Diversity the resolutions of the eighth meeting of the Conference of the Contracting Parties to the Ramsar Convention concerning the guidelines for integrating biodiversity considerations into environmental impact assessment legislation and/or processes and in strategic impact assessment, annexed to decision VI/7 A.

#### ***Other collaborators***

Other relevant international, regional and national organisations and interested Parties.

**Goal 3.4. To introduce and maintain appropriate monitoring arrangements to detect changes in the status and trends of inland water biodiversity**

**Context and linkages**

*Article(s) of the Convention on Biological Diversity:* 7 (b)

*Strategic Plan objectives:* 2.1, 3.1, 3.3 and 3.4

*Related element(s) of first programme of work:* New element

*Intra and inter-programmatic linkages:*

Goal 3.2 – Indicators, national inventories, rapid and other assessments

*Plan of Implementation of the World Summit:* paragraph 66 (c)

**Objective**

Establish and maintain national monitoring programmes for the components of inland water biodiversity, paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use.

**Activities of the Parties**

- 3.4.1. Introduce appropriate monitoring regimes based on the Convention on Biological Diversity and other guidance for priority inland water biodiversity and ecosystems in the first instance, taking into account the implementation of decisions VI/7 A-C on identification, monitoring, indicators and assessments and possible adoption by the Conference of the Parties at its seventh meeting of principles for developing and implementing national-level monitoring and indicators.

**Supporting activities of the Executive Secretary**

- 3.4.2. Develop a proposal on the establishment of monitoring programmes for inland water ecosystems taking into account existing guidance, including the Ramsar Convention guidance, relating to the establishment of monitoring programmes for wetland sites

**Lead partners**

Ramsar Convention Secretariat and STRP

**Other collaborators**

Relevant international, regional and national organizations.

## **B. Marine and coastal biological diversity**

*Paragraphs 1 and 2 of the following draft decision are taken from paragraph 1 of recommendation VIII/3 A of the Subsidiary Body on Scientific, Technical and Technological Advice. Paragraph 3, together with the annex and its five appendices, are drawn from the note by the Executive Secretary on the elaborated programme of work on marine and coastal biological diversity (UNEP/CBD/COP/7/12/Add.2). Paragraph 4 is a suggestion by the Executive Secretary. Paragraphs 5-32 are taken from SBSTTA recommendation VIII/3 B, paragraphs 33-46 from recommendation VIII/3 C, and paragraphs 47-49 from recommendation VIII/3 D. Annexes II and III reproduces annexes II and III of SBSTTA recommendation VIII/3 B. It should be noted that the proposed outcome-oriented targets (UNEP/CBD/COP/7/20/Add.5), which are intended for eventual incorporation into the revised programme of work on marine and coastal biological diversity, are reproduced under item 26 below, which deals, inter alia, with the overall approach for the integration of targets into the programmes of work (see page 6 below).*

### **[Review of the programme of work on marine and coastal biodiversity]**

#### *The Conference of the Parties*

1. *Takes note* that progress has been made in the implementation of the programme of work at the national, regional and global levels and that facilitation of implementation has been undertaken by the Secretariat;

2. *Decides* that the programme elements of the programme of work still correspond to global priorities, which are not fully implemented, and therefore *extends* the time period of the programme of work by an additional six years, taking into account the multi-year programme of work of the Conference of the Parties up to 2010;

3. *Notes* that the programme of work has been refined to take into account recent developments and new priorities and *endorses* the elaborated programme of work as presented in annex I to the present decision and its appendices 1-5;

4. *Invites* the Global Environment Facility, other funding institutions, and development agencies to provide financial support for the implementation of the elaborated programme of work on marine and coastal biodiversity;

### **[Marine and coastal protected areas]**

5. *Welcomes* the report of the Ad Hoc Technical Expert Group on Marine and Coastal Protected Areas (UNEP/CBD/SBSTTA/8/INF/7), <sup>8/</sup> *expresses its gratitude* to the Governments of New Zealand and the United States of America, and the World Conservation Union (IUCN), for their financial,

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<sup>8/</sup> The Ad Hoc Technical Expert Group adopted the following definition of “marine and coastal protected area”, which incorporates all of the IUCN categories of protected areas:

“ ‘Marine and coastal protected area’ means any defined area within or adjacent to the marine environment, together with its overlying waters and associated flora, fauna and historical and cultural features, which has been reserved by legislation or other effective means, including custom, with the effect that its marine and/or coastal biodiversity enjoys a higher level of protection that is surroundings.

“Areas within the marine environment include permanent shallow marine waters; sea bays; straits; lagoons; estuaries; subtidal aquatic beds (kelp beds, seagrass beds; tropical marine meadows); coral reefs; intertidal muds; sand or salt flats and marshes; deep-water coral reefs; deep-water vents; and open ocean habitats.”

organizational and technical support for this work, and *expresses its gratitude* to the Chair and members of the Ad Hoc Technical Expert Group for their work;

6. *Notes* that marine and coastal biodiversity is under rapidly increasing and locally acute human pressure, such that globally, regionally and nationally marine and coastal biodiversity is declining or being lost. One of the reasons for this level of threat is the very low level of development of marine and coastal protected areas;

7. *Notes* that marine and coastal protected areas have been proven to:

- (a) Protect biodiversity;
- (b) Ensure sustainable use of resources; and
- (c) Manage conflict, enhance economic well-being and improve the quality of life;

8. *Notes* that there are increasing numbers of marine and coastal protected areas, but in many cases they have not been effective because of problems related to their management, size and habitat coverage;

9. *Notes also* that the data available indicate that regionally and globally, marine and coastal protected area networks are severely deficient, and probably protect a very small proportion of marine and coastal environments and make a relatively small contribution to sustainable management of marine and coastal biodiversity;

#### ***Goals of marine and coastal protected areas***

10. *Agrees* that marine and coastal protected areas are an essential element in the conservation and sustainable use of marine and coastal biodiversity, and that the establishment of marine and coastal protected areas, where they are within areas under national jurisdiction, shall be in accordance with national legislation, programmes and policies, where they exist, and in accordance with international law where they are in areas beyond national jurisdiction;

11. *Notes* that there is an international body of evidence demonstrating that those marine and coastal protected areas where extractive uses are excluded have benefits for fisheries in surrounding areas, for communities, and for sustainable tourism and other economic activities within and outside the marine and coastal protected area;

12. *Agrees* that the goal for work under the Convention relating to marine and coastal protected areas should be:

“The establishment and maintenance of marine and coastal protected areas that are effectively managed, ecologically based and contribute to a permanent representative global network of marine and coastal protected areas, building upon national networks, including a range of levels of protection, where human activities are managed, particularly through national legislation, regional programmes and policies, traditional and cultural practices and international agreements, to maintain the structure and functioning of the full range of marine and coastal ecosystems, in order to provide benefits to both present and future generations.”

13. *Notes* that the World Summit on Sustainable Development, to promote the conservation and management of the oceans, agreed to develop and facilitate the use of diverse approaches and tools,

such as the establishment of marine protected areas consistent with international law and based on scientific information, including representative networks, by 2012, and time/area closures for the protection of nursery grounds and spawning periods and *agrees* to adopt this approach for the work of the Convention on marine and coastal protected areas, and to develop a strategy to meet this goal, including indicators of progress;

### ***National framework of marine and coastal protected areas***

14. *Recognizes* that marine and coastal protected areas should be a part of a wider integrated marine and coastal area management framework and, accordingly, *urges* Parties and other Governments with jurisdiction over marine and coastal areas to establish, as a matter of high priority and urgency, an effective marine and coastal biodiversity management framework, covering all areas subject to national jurisdiction, including the exclusive economic zone and continental shelf areas and deep sea basins, incorporating the elements set out in appendix 3 to annex I to the present decision, including by establishing new marine and coastal protected areas and by improving the effectiveness of existing marine and coastal protected areas;

15. *Agrees* that an effective marine and coastal biodiversity management framework as set out in appendix 3 to annex I to the present decision would comprise sustainable management practices and actions to protect biodiversity over the wider marine and coastal environment, including an integrated network of marine and coastal protected areas consisting of:

(a) Representative areas where extractive uses are excluded, and other significant human pressures are removed or minimized, to enable the integrity, structure and functioning of ecosystems to be maintained or recovered; and

(b) Other marine and coastal protected areas which may complement the biodiversity objectives of the areas referred to in subparagraph (a) above, where threats are managed for the purpose of biodiversity conservation and/or sustainable use and thus where extractive uses may be allowed;

16. *Agrees* that the balance between category (a) and (b) marine and coastal protected areas in paragraph 15 above would be selected by the country concerned and that, in selecting an appropriate balance, the country should take into account the advice of the Ad Hoc Technical Expert Group that certain objectives such as scientific reference areas can only be achieved through the establishment of category (a) marine and coastal protected areas;

17. *Notes* that there are some benefits of the framework that can be provided with any degree of certainty only by including highly protected areas, and that to achieve the full benefits this network needs to include representative and distinctive areas and contain a sufficient area of the coastal and marine environment to be effective and ecologically viable;

18. *Agrees* that key factors for achieving effective management of marine and coastal protected areas include good governance, clear legal or customary frameworks to prevent damaging activities, effective compliance and enforcement, ability to control external activities that affect the marine and coastal protected area, strategic planning, capacity-building and sustainable financing;

19. *Urges* Parties to urgently address, through appropriate integrated marine and coastal management approaches, all threats, including those arising from the land (e.g. water quality, sedimentation) and shipping/transport, in order to maximize the effectiveness of marine and coastal protected areas and networks in achieving their marine and coastal biodiversity objectives taking into account possible effects of climate change such as rising sea levels;

20. *Agrees* that the participation of relevant stakeholders and indigenous and local communities is essential for achieving the global goal, and for the establishment and maintenance of individual marine and coastal protected areas and national and regional networks;

21. *Notes* the technical advice provided by the Ad Hoc Technical Expert Group, contained in annex II to the present decision and in its report, relating to marine and coastal protected areas within national jurisdiction, and *urges* Parties and Governments to utilize that advice in their work to establish a marine and coastal protected area network;

#### ***Marine and coastal protected areas in areas beyond national jurisdiction***

22. *Notes* that there are increasing risks to biodiversity in areas beyond national jurisdiction and that marine and coastal protected areas are extremely deficient in purpose, numbers and coverage in these areas;

23. *Agrees* that there is an urgent need to establish in areas beyond national jurisdiction further marine and coastal protected areas consistent with international law, and based on scientific information, including in relation to areas of seamounts, hydrothermal vents, cold-water corals and open ocean;

24. *Takes into account* that jurisdiction in the high seas is provided for by the law of the sea and *requests* the Executive Secretary to work with other international bodies, particularly the United Nations Division for Ocean Affairs and the Law of the Sea, the International Seabed Authority, the International Maritime Organization, regional seas conventions and action plans, the Food and Agriculture Organization of the United Nations, regional fisheries organizations, the Intergovernmental Oceanographic Commission of United Nations Educational, Scientific and Cultural Organization, and other relevant organizations, to identify appropriate mechanisms for the establishment and effective management of marine and coastal protected areas beyond national jurisdiction, and report his findings to the Conference of the Parties;

#### ***Assessment, monitoring and research priorities***

25. *Notes* that the research priorities and pilot projects set out in appendix 4 to annex I to the present decision will provide important assistance to national and regional efforts to establish and maintain marine and coastal protected areas and national and regional networks;

26. *Agrees* to incorporate the research priorities and pilot projects contained in appendix 4 to annex I to the present decision into the programme of work in marine and coastal biodiversity, and *requests* the Executive Secretary to identify partners to adopt the research priorities and undertake these projects as a matter of urgency;

27. *Notes* that it is necessary to develop research programmes on the conservation of marine biological diversity resources beyond marine and coastal protected areas, with a view to establishing protected-area networks;

#### ***International support for the creation of networks of marine and coastal protected areas***

28. *Urges* Parties, other Governments and relevant organizations to provide active financial, technical and other support for the establishment of a global system of marine and coastal protected area networks and the implementation within it of relevant provisions contained in this decision, including identification and removal of barriers to the creation of marine and coastal protected areas, and removal of perverse incentives for unsustainable activities in the marine and coastal environment, pursuant to decision VI/15, on incentive measures, within the framework of relevant marine-related international law;

29. *Decides* to examine the need for support through the financial mechanism to developing country Parties, in particular the least developed and small island developing States among them, for country-driven activities aimed at enhancing capabilities for activities relating to the establishment and maintenance of marine and coastal protected areas and networks of marine and coastal protected areas and in particular to assist Parties to develop systems to make their marine and coastal protection area networks self-sustaining in the medium to long term;

30. *Notes* that further technical advice related to network design and in particular ecological coherence of networks will be needed to assist Parties in implementation work, and request the Executive Secretary, in consultation with the Bureau of Subsidiary Body on Scientific, Technical and Technological Advice, to identify an appropriate mechanism for developing this advice and either activate that mechanism or report back to Subsidiary Body on Scientific, Technical and Technological Advice if approval by Subsidiary Body on Scientific, Technical and Technological Advice or the Conference of the Parties is necessary;

### ***Monitoring progress toward the global goal***

31. *Invites* the World Conservation Monitoring Centre of the United Nations Environment Programme, in collaboration with relevant organizations and authorities, to provide and maintain up-to-date information on marine and coastal protected areas, in line with the proposed categories for inventory and contextual information set out in annex III below, to provide a basis for the assessment work under the Convention;

32. *Requests* the Executive Secretary to provide an assessment of progress toward the global goal, as part of reporting on the programme of work on marine and coastal biological diversity;

### ***[Mariculture]***

33. *Welcomes* the summary report of the Ad Hoc Technical Expert Group on Mariculture (UNEP/CBD/SBSTTA/8/9/Add.2) and the full report of the Group as presented as an information document for the eighth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/8/INF/6);

34. *Expresses its appreciation* to the Food and Agriculture Organization of the United Nations (FAO) for the technical support and meeting facilities provided for the meeting of the ad hoc technical expert group on mariculture;

35. *Takes note* of the negative biodiversity effects of mariculture, as described in section II of the summary report of the Ad Hoc Technical Expert Group on Mariculture, and of the methods and techniques available for their mitigation, as described in section III of that summary report;

36. *Notes also* that mariculture may have some positive effects on biodiversity, as described in section IV of the summary report;

37. *Urges* Parties and other Governments to adopt the use of relevant methods and techniques for avoiding the adverse effects of mariculture on marine and coastal biological diversity, and incorporate them into their national biodiversity strategies and action plans;

38. *Recognizes* the complexity of mariculture activities, the highly variable circumstances of different geographical areas, mariculture practices and cultured species, as well as social, cultural and economic conditions, which will influence mitigation options, and, accordingly, taking into account the special needs of and the difficulties faced by stakeholders in developing countries, *recommends* that

Parties and other Governments adopt the use of the following specific methods, techniques or practices for avoiding the adverse biodiversity-related effects of mariculture:

(a) The application of environmental impact assessments, or similar assessment and monitoring procedures, for mariculture developments, with due consideration paid to the scale and nature of the operation, as well as carrying capacities of the ecosystem, taking into account the guidelines on the integration of biodiversity considerations in environmental impact assessment legislation and/or processes and in strategic impact assessment, endorsed by the Conference of the Parties in its decision VI/7 A, as well as the recommendations endorsed in decision VI/10, annex II, on the conduct of cultural, environmental and social impact assessments regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities. There is a need to address the likely immediate, intermediate and long-term impacts on all levels of biodiversity;

(b) Development of effective site-selection methods, in the framework of integrated marine and coastal area management, taking into account the special needs and difficulties encountered by stakeholders in developing countries;

(c) Development of effective methods for effluent and waste control;

(d) Development of appropriate genetic resource management plans at the hatchery level and in the breeding areas, including cryo-preservation techniques, aimed at biodiversity conservation;

(e) Development of controlled low-cost hatchery and genetically sound reproduction methods, made available for widespread use, in order to avoid seed collection from nature, where appropriate. In cases where seed collection from nature cannot be avoided, environmentally sound practices for spat collecting operations should be employed;

(f) Use of selective fishing gear in order to avoid/minimize by-catch in cases where seed are collected from nature;

(g) Use of local species and subspecies in mariculture, noting that use of non-indigenous species may be appropriate in some circumstances;

(h) Implementation of effective measures to prevent the inadvertent release of mariculture species and fertile polyploids, including, in the framework of the Cartagena Protocol on Biosafety, living modified organisms (LMOs);

(i) Use of proper methods of breeding and proper places of releasing in order to protect genetic diversity;

(j) Minimizing the use of antibiotics through better husbandry techniques;

(k) Ensure that fish stocks used for fish meal and fish oil are managed in such a way as to be sustainable and to maintain the trophic web;

(l) Use selective methods in industrial fisheries to avoid/minimize by-catch.

(m) Considering traditional knowledge, where applicable as a source to develop sustainable mariculture techniques;

39. *Urges* Parties and other Governments to adopt best management practices and legal and institutional arrangements for sustainable mariculture, taking into account the special needs and difficulties encountered by stakeholders in developing countries, in particular through implementing

Article 9 of Code of Conduct on Responsible Fisheries, as well as other provisions in the Code dealing with aquaculture, recognizing that it provides necessary guidance to develop legislative and policy frameworks at the national, regional and international levels;

40. *Requests* the Executive Secretary to undertake a comprehensive review of relevant documents on best practices relevant to mariculture, and to disseminate the results, as well as relevant case studies, through the clearing-house mechanism prior to the tenth meeting of the Subsidiary Body;

41. *Approves* the research and monitoring priorities identified by the Ad Hoc Technical Expert Group on Mariculture as outlined in appendix 5 to annex I to the present decision, and *recommends* their implementation as part of the programme of work on marine and coastal biological diversity;

42. *Recommends* that the Executive Secretary, in collaboration with the Food and Agriculture Organization of the United Nations and other relevant organizations, explore ways and means for implementing these research and monitoring priorities, including an evaluation of means through which mariculture can be used to restore or maintain biodiversity;

43. *Recommends* that the Executive Secretary, in collaboration with the Food and Agriculture Organization of the United Nations and other relevant organizations, harmonize the use of terms in regards to mariculture by further developing and adopting the glossary of the Food and Agriculture Organization of the United Nations;

44. *Expresses its support* for regional and international collaboration to address transboundary impacts of mariculture on biodiversity, such as spread of disease and invasive alien species;

45. *Decides* to promote technical exchange and training programmes, and transfer of tools and technology;

46. *Decides* to examine the need for support through the financial mechanism to developing country Parties for country-driven activities aimed at enhancing capabilities to mitigate the adverse effects of mariculture on biological diversity;

***[Conservation and sustainable use of deep seabed genetic resources beyond national jurisdiction: study of the relationship between the Convention on Biological Diversity and the United Nations Convention on the Law of the Sea]***

47. *Requests* the Executive Secretary, in consultation with Parties and other Governments and in collaboration with relevant international organizations, such as the United Nations Division for Ocean Affairs and the Law of the Sea, the United Nations Environment Programme, the International Seabed Authority and the Intergovernmental Oceanographic Commission of the United Nations Educational, Cultural and Scientific Organization to compile and synthesize information on the status and trends of deep sea bed genetic resources and on methods to identify, assess and monitor genetic resources of the deep seabed in areas beyond the limits of national jurisdiction, including identification of threats to such genetic resources and the means for their protection, with a view to addressing processes and activities under Article 4(b) of the Convention and to report on progress thereon to the Subsidiary Body on Scientific, Technical and Technological Advice, which will prepare recommendations for the consideration of the Conference of the Parties at its eighth meeting;

48. *Invites* the United Nations General Assembly to call upon relevant international organizations such as the United Nations Environment Programme, the International Maritime Organization, the International Seabed Authority, the Intergovernmental Oceanographic Commission of

the United Nations Educational, Scientific and Cultural Organization, the International Hydrographic Organization, the World Meteorological Organization, the Secretariat of the Convention on Biological Diversity, and the United Nations Division for Ocean Affairs and the Law of the Sea, to review issues relating to the conservation and sustainable use of genetic resources of the deep seabed beyond the limits of national jurisdiction and make appropriate recommendations to the General Assembly regarding appropriate actions;

48. *Invites* Parties and other States to identify activities and processes under their jurisdiction or control which may have significant adverse impact on deep seabed ecosystems and species beyond the limits of national jurisdiction, in order to comply with Article 3 of the Convention.

### *Annex I*

## **DRAFT ELABORATED PROGRAMME OF WORK ON MARINE AND COASTAL BIOLOGICAL DIVERSITY**

### **I. VISION, MISSION, GOALS AND TARGETS OF THE PROGRAMME OF WORK ON MARINE AND COASTAL BIOLOGICAL DIVERSITY**

#### *A. Overall vision*

1. The overall vision that the effective implementation of the elaborated programme of work on marine and coastal biological diversity strives to attain is to halt the loss of marine and coastal biological diversity nationally, regionally and globally and secure its capacity to provide goods and services.

#### *B. Mission*

2. The overall goal of the programme of work on marine and coastal biodiversity, consistent with the Strategic Plan of the Convention, is to promote the implementation of the three objectives of the Convention and achieve significant reduction of the current rate of marine and coastal biological diversity loss by the year 2010. This goal was agreed upon by SBSTTA in its recommendation VIII/3 A.

#### *C. Goals and targets*

3. Once approved, the goals and targets submitted for the consideration of the Conference of the Parties (UNEP/CBD/COP/7/20/Add.5) will be incorporated into this section of the programme of work.

### **II. BASIC PRINCIPLES**

4. In accordance with decision IV/5, annex, paragraphs 2–14, the ecosystem approach and the precautionary approach have a central role in guiding all activities undertaken as part of the programme of work, and thus provide the foundation for its implementation. The success of the programme of work also relies on scientific research aimed at providing understanding of the functioning of the broader ecosystem in terms of its component parts and their connectivity. Research efforts oriented towards the information needs of management ensure that management decisions are based on best available science in the context of the precautionary approach. The roster of experts continues to provide the Executive Secretary with a valuable source of expertise in marine and coastal biological diversity, and its continued use and updating is encouraged. The programme of work will also use and draw upon scientific, technical and technological knowledge of local and indigenous communities in keeping with the contents of Article 8(j) of the Convention, as well as community and user-based approaches.

5. As stated in decision IV/5, the programme of work is implemented on the following levels:
- (a) **National and local**, which provide the primary level of implementation of the activities in the programme of work;
  - (b) **Regional**, through regional organizations, arrangements and bodies;
  - (c) **Global**, through international organizations, arrangements and bodies.
6. The involvement of all stakeholders in implementation of the programme of work should be promoted. The role of the Secretariat is to promote and facilitate the implementation of the programme of work, and to perform an overall coordination role.

### III. PROGRAMME ELEMENTS

#### **Programme element 1: Implementation of integrated marine and coastal area management (IMCAM)**

**Goal:** To promote and improve the implementation of IMCAM at the local, national and regional level.

**Operational objective 1.1:** *To apply appropriate policy instruments and strategies, including building of capacity, for the effective implementation of IMCAM [New]*

#### *Activities*

- (a) To promote, within the framework of IMCAM, the integration of biological diversity concerns in all socio-economic sectors adversely impacting the marine and coastal environment.
- (b) To identify obstacles to the implementation of IMCAM nationally and regionally, and develop and implement strategies, such as partnerships, tools and other means, to overcome those obstacles, including provision of guidance on the application of such tools. *[Recommendation VIII/3 A, annex]*
- (c) To encourage the application of the ecosystem approach, promote integrated multidisciplinary and multisectoral coastal and ocean management at the national level, and encourage States in developing ocean policies and mechanisms on integrated coastal management. *[WSSD Plan of Implementation paragraph 30(e)]*
- (d) To promote the identification or establishment of subregional, regional or global processes for developing advice on the application of IMCAM and issues identified under the operational objective.
- (e) To assist the development of national and regional capacity-building.
- (f) To provide information on relevant legal and institutional issues, having regard to the United Nations Convention on the Law of the Sea (UNCLOS) and other related international and regional agreements.
- (g) To assist the development of appropriate education and public awareness programmes at all levels.
- (h) To provide guidance on maintenance and wider application of local and traditional knowledge.
- (i) To cooperate with and build upon the Large Marine Ecosystem (LME) concept, as well as specific LME projects that are ongoing or planned. *[recommendation VIII/3 A, paragraph 2(f)]*

*Ways and means*

The activities will be carried out by Parties, assisted by regional and international organizations, and the Executive Secretary. An ad hoc technical expert group on implementation of IMCAM (recommendation VIII/3 A, annex) will provide guidance on implementation of activity (b).

***Operational objective 1.2:*** *To undertake direct action to protect the marine environment from negative impacts*[New]

*Activities*

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

(b) To promote action to reduce and control sea-based sources of pollution.

(c) To achieve substantial progress in protecting the marine environment from land-based activities through effective application of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and other appropriate instruments, including proper coastal land use, watershed planning, and integration of integrated marine and coastal area management into key sectors. [WSSD Plan of Implementation paragraphs 33(d) and 32(c)]

*Ways and means*

The activities will be carried out by Parties and regional and international organizations, including the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA). The Executive Secretary will assist in implementation.

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

*Activities*

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

(b) To identify existing organizations and initiatives.

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

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

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

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

(g) To facilitate the establishment of a regular process under the United Nations for global reporting and assessment of the state of the marine environment, including socio-economic aspects, both current and foreseeable, building on existing regional assessments. [WSSD Plan of Implementation paragraph 36(b)]

*Ways and means*

The Executive Secretary will take a lead role in implementation of activities (a) on the global level, (b), (e), (f), and (g). Parties will implement (a), (b), (c), (d), and (e) on the national level, with

regional organizations, such as regional seas conventions and action plans, taking a lead role on relevant activities at the regional level.

## **Programme element 2: Marine and coastal living resources**

**Goal:** To ensure the sustainable use of marine and coastal living resources

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

### *Activities*

- (a) To develop collaborative links with relevant organizations and institutions.
- (b) To promote the exchange of information and experience using appropriate mechanisms.
- (c) To promote the identification and development of ecosystem approaches compatible with the sustainable use of marine and coastal living resources.
- (d) To promote the identification both of components of the ecosystems which are critical to the functioning of the ecosystem and of key threats.
- (e) To promote capacity-building at local, national and regional levels, including local and traditional knowledge.
- (f) To carry out a study on the effects of stock enhancement on marine and coastal biological diversity at the species and genetic levels.
- (g) To implement the 1995 Code of Conduct for Responsible Fisheries and the guidance associated with the Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem. [*WSSD Plan of Implementation paragraph 31(c)*]
- (h) To eliminate destructive fishing practices and maintain and restore fisheries stocks to sustainable levels. [*WSSD Plan of Implementation paragraphs 32(c) and 31(a)*]
- (i) To maintain the productivity and biodiversity of important and vulnerable marine and coastal areas, including areas within and beyond national jurisdiction. [*WSSD Plan of Implementation paragraph 32(a)*]
- (j) To promote, in collaboration with the Global Taxonomy Initiative, the strengthening of taxonomic expertise at regional and national levels.

### *Ways and means*

The activities will be carried out by Parties and regional and international organizations. The Executive Secretary will assist in implementation, and will carry out activity (f).

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

### *Activities*

- (a) To compile and synthesize, in consultation with Parties and other Governments and in collaboration with relevant international organizations, such as the United Nations Division for Ocean Affairs and the Law of the Sea, the United Nations Environment Programme, the International Seabed Authority and the Intergovernmental Oceanographic Commission of the United Nations Educational, Cultural and Scientific Organization, information on the status and trends of deep sea bed genetic

/...

resources and on methods to identify, assess and monitor genetic resources of the deep seabed in areas beyond the limits of national jurisdiction, including identification of threats to such genetic resources and the means for their protection, with a view to addressing processes and activities under Article 4 (b) of the Convention. [*Recommendation VIII/3 D, paragraph (a)*]

(b) Parties and other States to identify activities and processes under their jurisdiction or control which may have significant adverse impact on deep seabed ecosystems and species beyond the limits of national jurisdiction, in order to comply with Article 3 of the Convention. [*Recommendation VIII/3 D, paragraph (c)*]

#### *Ways and means*

The Executive Secretary in collaboration with relevant international and regional organizations (as detailed in activity (a)) will take a lead role in implementation of activity (a). As indicated, activity (b) will be carried out by Parties and other States.

***Operational objective 2.3:*** *To gather and assimilate information on, build capacity to mitigate the effects of, and to promote policy development and implementation strategies to address: (i) the biological and socio-economic consequences of physical degradation and destruction of tropical and cold-water coral-reef ecosystems, including identification and promotion of management practices, methodologies and policies to reduce and mitigate impacts upon marine and coastal biological diversity and to restore and rehabilitate damaged coral reef; and in particular (ii) the impacts of coral bleaching and related mortality on coral-reef ecosystems and the human communities which depend upon coral-reef services, including through financial and technical assistance.*

#### *Activities*

Activities on coral bleaching and physical degradation and destruction of coral reefs as adopted in decision VI/3 are contained in appendices 1 and 2 below.

#### *Ways and means*

The activities will be carried out by Parties and regional and international organizations. The Executive Secretary will facilitate implementation, through active collaboration with International Coral Reef Initiative and its partners, the regional seas programmes of the United Nations Environment Programme, the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization, and other relevant organizations.

### **Programme element 3: Marine and coastal protected areas**

**Goal:** To establish and maintain marine and coastal protected areas that are effectively managed, ecologically based and contribute to a permanent representative global network of marine and coastal protected areas, building upon national networks, including a range of levels of protection, where human activities are managed, particularly through national legislation, regional programmes and policies, traditional and cultural practices and international agreements, to maintain the structure and functioning of the full range of marine and coastal ecosystems, in order to provide benefits to both present and future generations. [*recommendation VIII/3 B, paragraph 8*]

***Operational objective 3.1:*** *To establish and strengthen national and regional systems of MCPAs integrated into a global network and as a contribution to globally agreed goals. [New]*

#### *Activities:*

(a) To establish, as a matter of high priority and urgency, an effective marine and coastal biodiversity management framework, covering all areas subject to national jurisdiction, including the exclusive economic zone and continental shelf areas and deep sea basins, incorporating the elements set

out in appendix I below, including by establishing new marine and coastal protected areas and by improving the effectiveness of existing marine and coastal protected areas. Such a marine and coastal biodiversity management framework would comprise sustainable management practices and actions to protect biodiversity over the wider marine and coastal environment, including an integrated MCPA network consisting of:

- (i) Representative areas where extractive uses are excluded, and other significant human pressures are removed or minimized, to enable the integrity, structure and functioning of ecosystems to be maintained or recovered; and
- (ii) Other marine and coastal protected areas which may complement the biodiversity objectives of the areas referred to in (i), where threats are managed for the purpose of biodiversity conservation and/or sustainable use and thus where extractive uses may be allowed;

The balance between category (i) and (ii) MCPAs would be selected by country and that in selecting an appropriate balance the country should take into account that certain objectives such as scientific reference areas can only be achieved through the establishment of category (i) marine and coastal protected areas. [*recommendation VIII/3 B, paragraphs 10–12*]

(b) To identify, in collaboration with the United Nations Division for Ocean Affairs and the Law of the Sea, the International Seabed Authority, the International Maritime Organization, regional seas conventions and action plans, the Food and Agriculture Organization of the United Nations, regional fisheries organizations, the Intergovernmental Oceanographic Commission (IOC) of UNESCO, and other relevant organizations, appropriate mechanisms for the establishment and management of marine and coastal protected areas beyond national jurisdiction, due to the urgent need to establish such MCPAs, consistent with international law, and based on scientific information, including in relation to seamounts, hydrothermal vents, cold water corals and open ocean. [*recommendation VIII/3 B, paragraph 20*]

#### *Ways and means*

Activity (a) will be carried out by Parties and regional and international organizations. The Executive Secretary will assist in its implementation. The Executive Secretary will collaborate with the organizations referred to in activity (e) in order to facilitate its implementation. Further elaboration of the elements of the biodiversity management framework is provided in appendix 3 below.

#### ***Operational objective 3.2: To achieve effective management of existing MCPAs [New]***

##### *Activities*

(a) To achieve effective management of MCPAs through good governance, clear legal or customary frameworks to prevent damaging activities, effective compliance and enforcement, ability to control external activities that affect the marine and coastal protected area, strategic planning, capacity building and sustainable financing. [*recommendation VIII/3 B, paragraph 14*]

(b) To address, through appropriate integrated marine and coastal management approaches, all threats, including those arising from the land (e.g. water quality, sedimentation) and shipping/transport, in order to maximize the effectiveness of marine and coastal protected areas and networks in achieving their marine and coastal biodiversity objectives taking into account possible effects of climate change such as rising sea levels. [*recommendation VIII/3 B, paragraph 15*]

(c) To facilitate relevant stakeholder and indigenous and local community participation as an essential component of implementing operational objective 3.2. [*recommendation VIII/3 B, paragraph 16*]

*Ways and means*

The activities will be carried out by Parties and regional and international organizations. The Executive Secretary will facilitate their implementation.

**Operational objective 3.3:** *To provide support for and facilitate monitoring of national and regional systems of MCPAs [New]*

*Activities*

(a) To provide active financial, technical and other support for the establishment of a global system of marine and coastal protected area networks and the implementation within it of relevant provisions contained in this operational objective, including identification and removal of barriers to the creation of marine and coastal protected areas, and removal of perverse incentives for unsustainable activities in the marine and coastal environment, pursuant to decision VI/15, on incentive measures, within the framework of relevant marine-related international law. *[recommendation VIII/3 B, paragraph 24]*

(b) To provide and maintain, in collaboration with the World Conservation Monitoring Centre of the United Nations Environment Programme, in collaboration with relevant organizations and authorities, up-to-date information on marine and coastal protected areas in order to provide a basis for assessment of progress made in implementing the operational objective. *[recommendation VIII/3 B, paragraph 27]*

*Ways and means*

The activities will be carried out by funding agencies, Parties and regional and international organizations, such as UNEP-WCMC. The Executive Secretary will facilitate their implementation.

**Operational objective 3.4:** *To facilitate research and monitoring activities that reflect identified global knowledge gaps and priority information needs of MCPA management. [New]*

*Activities*

(a) To collaborate with relevant organizations in the preparation of project proposals to facilitate the implementation of the research and monitoring priorities outlined in appendix 4 below. *[Recommendation VIII/3 B, paragraph 22]*

(b) To identify and implement an appropriate mechanism for developing advice related to network design and ecological coherence of networks. *[recommendation VIII/3 B, paragraph 26]*

(c) Using the clearing-house mechanism, to assist the exchange of information on research, management issues and problems (including incentive measures) between marine protected area managers, to facilitate continuous improvement in management effectiveness across the global network of marine protected areas. *[decision IV/5, annex]*

*Ways and means*

Activity (a) will be carried out by Parties and regional and international organizations, including research organizations, while the Executive Secretary will facilitate its implementation. The Executive Secretary will take the lead role in implementing activities (b) and (c).

**Programme element 4: Mariculture**

**Goal:** To prevent or minimize the negative biodiversity impacts of mariculture on marine and coastal biodiversity and to enhance its positive effects.

**Operational objective 4.1:** *To promote use of techniques, which minimize adverse impact of mariculture on marine and coastal biological diversity. [New]*

*Activities*

(a) To adopt the use of relevant methods, techniques and practices for avoiding the adverse effects of mariculture on marine and coastal biological diversity, and to incorporate them into national biodiversity strategies and action plans as appropriate, including

- (i) The application of environmental impact assessments, or similar assessment and monitoring procedures, for mariculture developments, with due consideration paid to the scale and nature of the operation, as well as carrying capacities of the ecosystem, taking into account the guidelines on the integration of biodiversity considerations in environmental impact assessment legislation and/or processes and in strategic impact assessment, endorsed by the Conference of the Parties in its decision VI/7 A, as well as the recommendations endorsed in decision VI/10, annex II, on the conduct of cultural, environmental and social impact assessments regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities. There is a need to address the likely immediate, intermediate and long-term impacts on all levels of biodiversity;
- (ii) Development of effective site-selection methods, in the framework of integrated marine and coastal area management, taking into account the special needs and difficulties encountered by stakeholders in developing countries;
- (iii) Development of effective methods for effluent and waste control;
- (iv) Development of appropriate genetic resource management plans at the hatchery level and in the breeding areas, including cryo-preservation techniques, aimed at biodiversity conservation;
- (v) Development of controlled low-cost hatchery and genetically sound reproduction methods, made available for widespread use, in order to avoid seed collection from nature, where appropriate. In cases where seed collection from nature cannot be avoided, environmentally sound practices for spat collecting operations should be employed;
- (vi) Use of selective fishing gear in order to avoid/minimize by-catch in cases where seed are collected from nature;
- (vii) Use of local species and subspecies in mariculture, noting that use of non-indigenous species may be appropriate in some circumstances;
- (viii) Implementation of effective measures to prevent the inadvertent release of mariculture species and fertile polyploids, including, in the framework of the Cartagena Protocol on Biosafety, living modified organisms (LMOs);
- (ix) Use of proper methods of breeding and proper places of releasing in order to protect genetic diversity;

- (x) Minimizing the use of antibiotics through better husbandry techniques;
- (xi) Ensure that fish stocks used for fish meal and fish oil are managed in such a way as to be sustainable and to maintain the trophic web;
- (xii) Use selective methods in industrial fisheries to avoid/minimize by-catch.
- (xiii) Considering traditional knowledge, where applicable as a source to develop sustainable mariculture techniques. [*recommendation VIII/3 C, paragraphs 5 and 6*]

(b) To adopt best management practices and legal and institutional arrangements for sustainable mariculture, taking into account the special needs and difficulties encountered by stakeholders in developing countries, in particular through implementing Article 9 of Code of Conduct on Responsible Fisheries, as well as other provisions in the Code dealing with aquaculture, recognizing that it provides necessary guidance to develop legislative and policy frameworks at the national, regional and international levels. [*recommendation VIII/3 C, paragraph 7*]

(c) To undertake a comprehensive review of relevant documents on best practices relevant to mariculture, and to disseminate the results, as well as relevant case-studies, through the clearing-house mechanism prior to the tenth meeting of the Subsidiary Body. [*recommendation VIII/3 C, paragraph 8*]

(d) To facilitate the implementation of the research and monitoring priorities outlined in appendix 5 below in collaboration with the Food and Agriculture Organization of the United Nations and other relevant organizations. [*recommendation VIII/3 C, paragraph 11*]

#### *Ways and means*

Activities (a) and (b) will be carried out by Parties, with assistance from regional and international organizations (such as the FAO) and the Executive Secretary. The Executive Secretary will take a lead role in carrying out activity (c). Activity (d) will be carried out by Parties, regional and international organizations, including research organizations. The Executive Secretary will facilitate its undertaking.

### **Programme element 5: Alien species and genotypes**

**Goal:** To prevent the introduction of invasive alien species into the marine and coastal environment, and to eradicate to the extent possible those alien species that have already been introduced.

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

#### *Activities*

- (a) To analyse and disseminate information, data and case-studies on the subject.
- (b) To develop collaboration with relevant organizations.
- (c) To ensure exchange of information and experience, using appropriate mechanisms.

#### *Ways and means*

The Executive Secretary will take a lead role in carrying out these activities, with assistance from international organizations (such as the IMO and GISP), regional organizations and Parties.

**Operational objective 5.2:** *To put in place mechanisms to control all pathways, including shipping, trade and mariculture, for potential alien invasive species in the marine and coastal environment. [New]*

*Activities*

(a) To invite relevant organizations such the International Maritime Organization (IMO), the Global Invasive Species Programme (GISP), the Food and Agriculture Organization of the United Nations (FAO), and the Ramsar Convention on Wetlands to work together to develop an international cooperative initiative to address impediments to the management of marine alien species, particularly to address technical problems related to the identification and control of marine invasions. *[recommendation VIII/3 A, paragraph 2 (c)]*

(b) To exchange information and facilitate technical cooperation on effective techniques for prevention, early detection, eradication and control of invasive alien species in the marine and coastal environments.

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

*Ways and means*

The activities will be carried out by the Executive Secretary and the organizations identified in activity (a) as well as by, and in collaboration with, Parties.

**Operational objective 5.3:** *To maintain an incident list on introductions of alien species and genotypes*

*Activities*

(a) To continue making updated information on introductions of alien species and genotypes available through the clearing-house mechanism or other appropriate mechanisms.

*Ways and means*

The Executive Secretary will take a lead role in facilitating the implementation of this activity in collaboration with relevant international and regional organizations and the Parties.

## **Programme element 6. General**

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

*Activities*

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

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

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

*Ways and means*

The Executive Secretary will take a lead role in implementing these activities.

**Operational objective 6.2:** *To undertake effective collaboration, cooperation and harmonization of initiatives with relevant conventions, organizations and agencies.*

*Activities*

(a) To identify and implement meaningful joint activities and initiatives with relevant conventions, organizations and agencies aimed at the implementation of this work programme. *[New]*

(b) To collaborate with regional seas conventions and action plans, including identification of joint programmes of work on topics of mutual relevance, including through regionally elaborated criteria for the establishment and management of marine and coastal protected areas under regional seas conventions and action plans. *[Recommendation VIII/3 A, paragraph 2(e)]*

*Ways and means*

The Executive Secretary will take a lead role in implementing these activities, together with relevant conventions, organizations and agencies, regional seas conventions and action plans.

#### IV. ENABLING ACTIVITIES

(a) Provision of assistance to coastal States in developing ocean policies and mechanisms for integrated management. *[WSSD Plan of Implementation paragraph 30(e)]*

(b) Updating and strengthening existing legislation as well as institutions dealing with marine and coastal issues, including the effective implementation of laws and regulations, and the strengthening and rationalization of institutions. *[Priority identified by Parties – see document UNEP/CBD/SBSTTA/8/9]*

(c) Provision of assistance to coastal States in coordinating policies and programmes at the regional and subregional level, aimed at the conservation and sustainable management of fishery resources and implementation of integrated coastal area management plans, including through the promotion of sustainable coastal and small-scale fishing activities and, where appropriate, the development of related infrastructure. *[WSSD Plan of Implementation paragraph 30(g)]*

(d) Formation of cooperative partnerships between countries or between international and/or regional organizations to enhance capacity for implementation, taking into account the special needs and difficulties experienced by stakeholders in developing countries and by indigenous and local communities. *[recommendation VIII/3 A. paragraph 2(h)]*

(e) Increase of scientific, technical and technological collaboration, including integrated assessment at the global and regional levels, including the appropriate transfer of marine science and marine technologies and techniques for the conservation and management of living marine resources and expanding ocean-observing capabilities for timely prediction and assessment of the state of the marine environment. *[WSSD Plan of Implementation, paragraph 36 (a)]*

(f) Build capacity in marine science, information and management, through, *inter alia*, promoting the use of environmental impact assessments and environmental evaluation and reporting techniques for projects or activities that are potential harmful to the coastal and marine environments and their living and non-living resources. *[WSSD Plan of Implementation, paragraph 36 (c)]*

(g) Undertaking capacity building, technology transfer, public education and awareness, and training in order to improve the implementation of this programme of work. *[Priority identified by Parties]*

(h) Urgent mobilization of financial resources and identification of additional funding mechanisms for implementation of this programme of work, including provision of information about creative arrangements and tools for financing conservation and sustainable use, and through establishment

of additional mechanisms, such as small grants funds. *[from document UNEP/CBD/SBSTTA/8/9 and WSSD Plan of Implementation paragraph 32(b)]*

(i) Continued review of obstacles to implementation of each programme element leading to development of additional enabling activities, as appropriate, aimed at overcoming such obstacles.

#### *Ways and means*

The Executive Secretary will collaborate with funding agencies, international and regional organizations and Parties to facilitate the implementation of these activities.

### V. TIME SCHEDULE

The elaborated programme of work will be effective for a six year time period (2004-2010) at which point its implementation will be reviewed in-depth, and the programme of work will be revised as necessary. Additional elaboration of the programme of work prior to 2010 can be undertaken through decisions of the Conference of the Parties in response to emerging global priorities needing urgent action.

#### *Appendix 1*

### SPECIFIC WORK PLAN ON CORAL BLEACHING

The following activities, adopted by the Conference of the Parties in its decision VI/3, would be incorporated under operational objective 2.3 of the elaborated programme of work.

#### *1. Information gathering*

(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 place reefs at risk; and (3) the frequency and extent of coral-bleaching and related mortality events, as well as their impacts on ecological, social and economic systems.**

#### *Ongoing initiatives*

- (i) The “Ad Hoc Study Group on Indicators of Coral Bleaching and Subsequent Effects” was established September 2000 under the auspices of IOC/UNESCO with three major objectives: to develop possible molecular, cellular, physiological, and community indicators of coral bleaching that are reliable in their ability to detect early stress signals; examine potential mechanisms of reef corals for adaptation/acclimatization to global environmental change; investigate long-term response of reef corals to large scale changes in environmental variables. The group will meet annually for three years and distribute findings through annual reports and a final publication.
- (ii) The Global Coral Reef Monitoring Network (GCRMN) is a global network of coral reef scientists, Governments and local communities for monitoring and assessment of coral reefs, in terms of both biophysical and socio-economic parameters needed for management. GCRMN is co-hosted by the Australian Institute of Marine Science and the World Fish Center (ICLARM). ICLARM also host ReefBase, the official database of GCRMN, with data of over 8,000 coral reefs over the world. UNEP, together with IOC/UNESCO, is a sponsor of the GCRMN and a member of the GCRMN Management Group and the GCRMN Scientific and Technical Advisory Committee.
- (iii) GCRMN has developed a comprehensive Status of Coral Reefs of the World report to be updated every two years, with the most recent edition published in October 2000.

- (iv) UNEP, through GCRMN, emphasizes the importance of monitoring socio-economic parameters to achieve sustainable use of coral reef ecosystems. A socio-economic manual has recently been developed (October 2000) for monitoring of these parameters for enhanced management capacity.
- (v) Contributing to GCRMN are existing regional projects. Regional coral reef monitoring networks within GCRMN exist for the Indian Ocean and the Wider Caribbean funded by World Bank, with the goal of assisting in the conservation of the rich biodiversity of coral reefs and their socio-economic value, and in the sustainable management of their resources, through a monitoring network.
- (vi) Under the International Coral Reef Action Network (ICRAN), the World Conservation Monitoring Centre (WCMC) and ICLARM are exploring the integration and availability of map-based products through the WCMC website and through ReefBase.
- (vii) Some projects within the CORDIO programme in the Indian Ocean region focus on determining the socio-economic impacts of coral mortality and options for mitigating these through management and development of alternative livelihoods.

*Specific tasks in addition to ongoing initiatives*

- (i) Provide scientific information on the survival of reef-building corals under global warming to allow some prediction of the adaptation and survival of the biological diversity of coral reefs in coming decades;
  - (ii) Compile information on existing networks, databases and websites which can provide up-to-date information of the status of coral reefs and their threats; and assess the quality of the data they contain and methodologies used for data collection and analysis;
  - (iii) Strengthen networks for data collection and dissemination of information on coral-reef status and interpretation of long-term trends resulting from global climate change and anthropogenic stresses to assist effective management and conservation;
  - (iv) Develop further target research programmes that investigate the impacts of coral bleaching and coral mortality events on social and economic systems;
  - (v) See activity (k) (i) below.
- (b) **Implement and coordinate baseline assessments and long-term monitoring 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.**

*Ongoing initiatives*

- (i) The objectives of the Ad Hoc Study Group on Indicators of Coral Bleaching and Subsequent Effects under activity (a) above include the identification of biological indicators that would facilitate long-term monitoring.
- (ii) GCRMN currently serves as a network for coral reef assessments and monitoring of biological variable relevant to coral bleaching, mortality and recovery, as well as many socio-economic parameters associated with coral-reef services (see activity (a)).
- (iii) Data repository and dissemination systems such as ReefBase may offer time-line biological data.
- (iv) GCRMN, in coordination with the World Bank, IUCN, the Australian Institute of Marine Science and UNEP regional seas programmes is targeting existing or planned marine

protected areas as the focus of some of their monitoring activities. The sites may offer valuable baseline data and serve for long-term monitoring.

- (v) GCRMN is currently developing rapid assessment methodology for socio-economic and biophysical parameters in the Eastern African region, especially for use in developing countries where limited resources do not always allow for regular high-intensive monitoring.
- (vi) The UNEP Division of Environmental Information, Assessment and Early Warning coordinates a variety of information available from remote sensing technologies and organizations that facilitates dissemination of such information. They are well suited to coordinate assessment of meteorological variables relevant to coral bleaching, mortality and recovery.
- (vii) WCMC and ICLARM are exploring the integration and availability of map-based products through the WCMC website and through ReefBase.

*Specific tasks in addition to ongoing initiatives*

- (viii) Identify pilot projects that establish training programmes and survey protocols and enhance availability of expert advice at a range of scales, including classification of scale data.
- (ix) Support ongoing assessment and monitoring initiatives, such as those of UNESCO, ICRAN, the regional seas conventions and action plans, GCRMN, UNEP and CORDIO.

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

*Ongoing initiatives*

- (i) The objectives of the Ad Hoc Study Group on Indicators of Coral Bleaching and Subsequent Effects referred to under activity (a) above include the identification of physiological early-stress indicators in corals.
- (ii) The Sida-SAREC and World Bank programme on coral-reef degradation in the Indian Ocean, was initiated as a response to the 1998 coral-bleaching event (CORDIO).
- (iii) GCRMN is currently developing rapid assessment methodology for socio-economic and biophysical parameters in the Eastern African region, especially for use in developing countries where limited resources do not always allow for regular high-intensive monitoring (ReefCheck).
- (iv) Within the ICRAN strategic plan, it is intended that these capabilities will be developed and made widely available.
- (v) The UNEP Division of Environmental Information, Assessment and Early Warning coordinates a variety of information available from remote sensing technologies and organizations that facilitates dissemination of such information.

*Specific tasks in addition to ongoing initiatives*

- (vi) Develop standardized training modules and manuals on detection and documentation of coral-bleaching events, mortality or recovery monitoring

- (vii) Organize annual meetings in each region on coral-reef assessment and monitoring methods with particular emphasis on documenting coral bleaching, bleaching related mortality and subsequent recovery. These should be integrated into existing programmes, where possible (regional seas conventions and actions plans may have the best capacity to implement these measures).
- (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 and related mortality.**

*Ongoing initiatives*

- (i) GCRMN has developed a comprehensive Status of Coral Reefs of the World report to be updated every two years, with the most recent edition published in October 2000. This report is largely based of national and regional contributions.
- (ii) The Secretariat of the Convention on Biological Diversity, in accordance with decision V/3, paragraph 7, invited Parties to submit case-studies for dissemination through the clearing-house mechanism. The national reporting mechanism of the Convention on Biological Diversity facilitates the collection of information on the status of coral reefs and case-studies on the occurrence and impacts of coral bleaching.
- (iii) The CORDIO Status Report 2000 offers reporting opportunities on the status of the reefs for Indian Ocean countries. The dissemination of this information through the CORDIO newsletter has facilitated further communication and coordination on local impacts.

*Specific tasks in addition to ongoing initiatives*

- (iv) Support and expand existing networks and initiatives at the regional and national level conducting coral-reef status assessments and monitoring.
- (v) Strengthen dissemination of existing assessment and monitoring information on status of coral reefs and their threats through existing networks (Under the ICRAN strategic plan, this is a core role of GCRMN and ReefBase).
- (e) **Extend the use of early-warning systems for coral bleaching by:**
  - (i) **Enhancing current NOAA AVHRR Hot Spot mapping by increasing resolution in targeted areas and carry out ground-truth validation exercises;**
  - (ii) **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;**
  - (iii) **Making the products of remote sensing readily accessible at low cost to coral-reef scientists and managers worldwide with a view to those scientists and managers that are based in developing countries.**

*Ongoing initiatives*

- (i) The UNEP Division of Environmental Information, Assessment and Early Warning coordinates a variety of information available from remote sensing technologies and organizations that facilitates dissemination of such information.
- (ii) Under the ICRAN, WCMC and ICLARM are exploring the integration and availability of map-based products through the WCMC website and through ReefBase that include satellite and aerial imagery.

*Specific tasks in addition to ongoing initiatives*

- (iii) Expand the use of existing early warning systems (e.g. NOAA early warning mapping) and support the development of Web-based early warning systems.
- (iv) Develop local community capacity for remote and local level validation exercises.
- (v) Develop mechanisms to make accessible high-resolution multi-spectrum imagery worldwide.

*2. Capacity-building*

**(f) Support the training of and career opportunities for marine taxonomists, ecologists, and members of other relevant disciplines, particularly at the national and regional level.**

*Ongoing initiatives*

- (i) Various ongoing training activities not necessarily related to coral bleaching but to coral conservation issues, e.g. the Ramsar Wetlands for the Future training initiative for Latin America and the Caribbean; the regional seas programme for Caribbean protected areas managers; various activities supported by aid agencies and global and regional development banks.
- (ii) Many other training activities are carried out as components of wider projects and programmes. GCRMN is building capacity for coral-reef monitoring and assessments through training workshops, especially in developing countries.

*Specific tasks in addition to ongoing initiatives*

- (iii) Further incorporate or support the issue of coral reefs and bleaching in the capacity building activities of multilateral environmental agreements (e.g. Ramsar Convention, Cartagena Convention) and of their respective contracting parties.
- (iv) Develop standardized training modules and manuals on detection and documentation of coral-bleaching events and subsequent recovery.
- (v) Organize annual meetings in each region on coral-reef assessment and monitoring methods with particular emphasis on documenting coral bleaching, bleaching related mortality and subsequent recovery. These should be integrated into existing programmes, where possible.
- (vi) Create scholarship trust funds in each region of the regional seas programmes to provide scholarships at graduate/postgraduate level to at least two people per region to undertake studies on coral-reef ecology and management.
- (vii) Promote exchange programmes between countries and/or regions.
- (viii) Promote further coordination and collaboration of ongoing regional activities.
- (ix) Promote the inclusion in national reports under the regional seas conventions, the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change a section for reporting of ecological and socio-economic impacts of coral-bleaching events.
- (x) Add coral bleaching to the national biodiversity strategies and action plans under the Convention on Biological Diversity.

**(g) Encourage and support multidisciplinary approaches to coral-reef research, monitoring, socio-economics and management.**

*Ongoing initiatives*

- (i) ICRI and GCRMN activities are intended to encourage and support multidisciplinary approaches to coral reef research, monitoring, socio-economics and management.
- (ii) Regional seas programmes through the ICRAN strategic plan and existing programmes like CORDIO, and the UNEP Caribbean Environment Programme are increasing regional capacity towards monitoring, socio-economics and management, as related to coral bleaching. The four regions currently active under the ICRAN strategic plans are South—East Asia, Pacific, Caribbean and Eastern Africa.

***Specific tasks in addition to ongoing initiatives***

- (iii) Develop a formal network of agencies in developed and developing countries, which agree to an annual exchange of staff in areas relevant to coral-reef management.
- (iv) Gather and assimilate information on existing training programmes on integrated coastal area management, best practices and related issues to sustainable management of coral reefs.
- (v) Develop and/or expand training opportunities for fishers, protected area managers and related marine resource managers at the national and regional levels, on resource assessment, monitoring, user impact, ecosystem approaches to marine and coastal resource management, surveillance and enforcement, local community integration, and in setting and measuring the achievement of management performance goals and indicators.
- (vi) See activity (k) (ii) below.

**(h) Build stakeholder partnerships, community participation programmes, and public-education campaigns and information products that address the causes and consequences of coral bleaching.**

*Ongoing initiatives*

- (i) ICRI and the International Tropical Marine Ecosystems Management Symposium (ITMEMS) are building the foundation of new ICRI action.
- (ii) A number of existing education and capacity-building projects within the regional seas programmes serve to raise awareness regarding coral bleaching.
- (iii) IUCN, the Secretariat of the Convention on Biological Diversity, USAID and WWF have produced a publication Management of Bleached and Severely Damaged Coral Reefs, to contribute to effective and immediate management action to aid reef protection and regeneration, and to enhance research to develop the necessary tools and measures for long-term success. In addition, the publication is intended to raise awareness of the urgent need to take all possible actions to reduce the impact of climate change on coral reefs.
- (iv) The WWF approach to worldwide coral reef conservation (CoralWeb): training of resource managers, increasing education, raising awareness, and implementing site-based reef management projects to help groups of stakeholders achieve their goals in reef management and sustainable economic development, including through the development of alternatives to destructive practices.

- (v) The International Coral Reef Information Network (ICRIN) is the primary public awareness mechanism of the ICRI, and thus serves to disseminate public information products that address the causes and consequences of coral bleaching.

*Specific tasks in addition to ongoing initiatives*

- (vi) “Bridge the gap between global and local action through the creation of national and sub-regional coral-reef initiatives” (see ICRI and the International Tropical Marine Ecosystems Management Symposium on Building the Foundation of New ICRI Action).
- (vii) Package relevant information from status-of-reefs reports, *Reefs at Risk*, etc., into effective practical materials for general public, the media, private sector and policy makers

*3. Policy development / implementation*

(i) **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.**

*Ongoing initiatives*

- (i) As an example, relevant regional activities within the Wider Caribbean are carried out, *inter alia*, in the framework of:
- The Cartagena Convention and its protocols on oil spills, land-based sources of marine pollution and specially protected areas and wildlife
  - Regional ICRI Framework for Action
  - Association of Caribbean States (ACS)
  - Central American Commission on Environment and Development (CCAD)
  - CARICOM

*Specific tasks in addition to ongoing initiatives*

- (ii) Assess relevant actions of existing frameworks and how these are directly addressing the integrated marine and coastal areas management, in particular coral-reef issues.
- (iii) Integrate in existing policies at the regional and national levels the priority issues identified by ICRI and the International Tropical Marine Ecosystems Management Symposium (ITMEMS).
- (iv) Make use of the regional seas programmes and other regional agreement (i.e. shipping, fisheries, trade and land-based sources of marine pollution) as vehicles to develop and implement policies related to coral-reef management and protection.
- (j) **Identify and institute additional and alternative measures for securing the livelihoods of people who directly depend on coral-reef services.**

*Ongoing initiatives*

- (i) Some projects within the CORDIO programme in the Indian Ocean region focus on determining the socio-economic impacts of coral mortality and options for mitigating these through management and development of alternative livelihoods. Development is needed of further target research projects that investigate the impacts of coral bleaching and mortality events on social and economic systems in other regions.

*Specific tasks in addition to ongoing initiatives*

- (ii) Compile information on the socio-economic impacts of coral bleaching on communities dependent on coral reefs.
- (iii) Support and expand existing projects that assess the impacts of coral bleaching on communities dependent on coral reefs, such as the CORDIO project in the Indian Ocean.
- (iv) Develop pilot projects for transitioning dependent communities to alternative and sustainable livelihoods.
- (k) **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:**
  - (i) **Develop approaches for assessing the vulnerability of coral-reef species to global warming;**
  - (ii) **Build capacity for predicting and monitoring the impacts of coral bleaching and related mortality;**
  - (iii) **Identify approaches for developing response measures to coral bleaching;**
  - (iv) **Provide guidance to financial institutions, including the Global Environment Facility (GEF), to support such activities.**

*Ongoing initiatives*

- (i) The Executive Secretary has transmitted the view to the United Nations Framework Convention on Climate Change (UNFCCC) 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. In this regard, the Secretariat of the Convention on Biological Diversity, the Secretariat of the UNFCCC, and the Intergovernmental Panel on Climate Change (IPCC) have initiated dialogue to explore the integration of biological diversity concerns into the implementation of the UNFCCC and its Kyoto Protocol.
- (ii) GEF Caribbean project on climate change adaptation (CPACC project).

*Specific tasks in addition to ongoing initiatives*

- (iii) Promote and implement joint work plans with other relevant agreements, organizations and initiatives, including the Commission on Sustainable Development, FAO, regional seas conventions and action plans, regional trade and economic organizations, the Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities, ICRI and the Man and Biosphere Programme. In particular, assess and coordinate activities that have been agreed within multilateral environmental agreements about coral reefs.
- (iv) Gather the outputs of the Caribbean GEF project on climate change adaptation (CPACC project) as a contribution to activities (k) (i)-(iv) above, and disseminate relevant findings through the clearing-house mechanism and other mechanisms.
- (v) Further development of response measures to coral bleaching and potential guidance to financial institutions, including the GEF may be needed.

**(l) Encourage FAO and regional fisheries organizations to develop and implement measures to assess and mitigate the impacts of sea-surface temperature rise on fisheries.**

*Specific tasks*

- (i) Investigate potentially deleterious effects of changes in oceanographic patterns and resulting impacts on target fish stocks resulting from sea-surface temperature rise.
- (ii) Establish no-fishing zones and limitation on fishing gear to protect breeding grounds and provide fish with a refuge.
- (iii) Enforce legislation prohibiting destructive fishing practices that further damage coral-reef ecosystems.
- (iv) Investigate strategies for management of coral-reef fisheries that are demonstrably sustainable with respect to fished stocks and the ecosystems that produce them (in collaboration with FAO).

**(m) 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.**

*Specific tasks*

- (i) Recognizing that coral bleaching is a cumulative stress response (i.e. global warming is the most widespread stressor, but known human induced stresses exacerbate events), develop education programmes addressing an ecosystem approach to coral-reef management and the relation between ecological parameters of coral reefs, sea-surface temperature rise and other human-induced stresses.
- (ii) Investigate the relationship between coral-bleaching events and long-term meteorological data.
- (iii) Develop educational programmes on the relationship between coral reefs and larger marine systems (e.g. impacts of coral-reef loss on fisheries, local communities etc).
- (n) Emphasize the interdependencies and uncertainties in the relationships among marine, terrestrial, and climatic systems.**

*4. Financing*

**(o) Mobilize international programmes and mechanisms for financial and technical development assistance, as well as national and private sources to support implementation.**

*Specific tasks*

- (i) Promote programmes that identify the relationships among financial and technical development assistance and environmental project funding.
- (ii) Identify financial and technical assistance mechanisms of national and private sources to assistance communities impacted by coral bleaching.

*Appendix 2*

**ELEMENTS OF A WORK PLAN ON PHYSICAL DEGRADATION AND DESTRUCTION OF CORAL REEFS**

The following activities, adopted by the Conference of the Parties in its decision VI/3, would be incorporated under operational objective 2.3 of the elaborated programme of work:

(a) *Assessments and indicators.* To provide a comprehensive analysis of the status and trends of global coral-reef ecosystems, including determination of indicators for continued monitoring and determination of ecological and socio-economic impacts of coral-reef degradation and destruction;

(b) *Management.* To identify management practices, technologies and policies that promote the conservation and sustainable use of coral-reef ecosystems and their associated marine biological diversity, with a view to addressing recognized threats (i.e., overfishing, coastal development, destructive fishing practices, land-based pollution, marine-based pollution and recreational use) and identifying sustainable management approaches;

(c) *Capacity-building.* To strengthen the capacities of Parties, regions, local communities and other stakeholders, to manage sustainably coral-reef ecosystems and their associated marine biological diversity so as to maintain their ecosystem benefits and to promote awareness and responsible action to prevent and mitigate physical degradation and destruction of coral reefs and its effects on marine biological diversity;

(d) *Financing.* To recognize and promote existing programmes and mobilize further mechanisms for financial and technical development assistance to support implementation of activities addressing the physical degradation and destruction of coral reefs;

(e) *Education and public awareness.* To educate and inform the public, policy makers and other stakeholders of ecological and socio-economic values of coral-reef ecosystems and the importance of an ecosystem approach towards their conservation and sustainable management.

*Appendix 3*

**ELEMENTS OF A MARINE AND COASTAL BIODIVERSITY MANAGEMENT FRAMEWORK <sup>10/</sup>**

**A. *Purpose of the framework***

1. The overall marine and coastal biodiversity management framework should fulfil the three objectives of the Convention, namely the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits, arising out of the utilization of genetic resources.

2. The framework would play an insurance/precautionary role to help halt losses in biodiversity and encourage recovery, notwithstanding our imperfect knowledge of the marine environment.

3. The framework should address all elements of biodiversity, as reflected in Annex I to the Convention, including the genetic, species and ecosystem levels.

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<sup>10/</sup> From SBSTTA recommendation VIII/3 B, annex IV.

4. Marine ecosystems include both benthic and pelagic elements. Most species have a mobile stage in their life cycle. As a consequence, marine systems are considered open and dispersing larvae can link distant marine, coastal and inland water habitats. This means that connectivity issues are significant in designing a marine biodiversity management framework, and one MCPA will not be able to protect all the biodiversity within the area. A network approach is therefore essential. The network should be at an appropriate scale, which may in some cases require a regional approach. That regional approach should address proportionality issues on a regional rather than a national scale, for example when one or a handful of countries possess most or all of a particular habitat type or the world population of a particular species.

### ***B. Elements of the framework***

5. An effective marine and coastal biodiversity management framework would comprise sustainable management practices and actions to protect biodiversity over the wider marine and coastal environment, including an integrated MCPA network consisting of:

(i) Representative areas where extractive uses are excluded, and other significant human pressures are removed or minimized, to enable the integrity, structure and functioning of ecosystems to be maintained or recovered; and

(ii) Other marine and coastal protected areas which may complement the biodiversity objectives of the areas referred to in subparagraph (i) above, where threats are managed for the purpose of biodiversity conservation and/or sustainable use and thus where extractive uses may be allowed.

6. The balance between category (i) and (ii) MCPAs in the previous paragraph would be selected by the country and when selecting an appropriate balance the country should take into account the advice of the AHTEG that certain objectives such as scientific reference areas can only be achieved through the establishment of category (i) MCPAs.

7. This framework should take into account national requirements with respect to the interests of indigenous and local communities, such as spiritual and cultural practices and socio-economic interests and, as appropriate, opportunities for the participation of indigenous and local communities in the establishment and management of MCPAs as well as opportunities to protect and promote the use of their knowledge, innovations and practices.

### ***C. Representative areas from which extraction is excluded***

8. Such representative areas would be managed to maintain their integrity, structure, functioning, resilience and persistence, or to take restorative or rehabilitative steps for biodiversity. They would encompass a full range of marine and coastal ecosystems (including those that are also unique or special), and be protected from human impacts and the effects of alien species. The key purpose of these areas would be to provide for intrinsic values, to allow us to better understand the marine and coastal environment by acting as scientific reference areas, to contribute towards marine environmental recovery, and to act as insurance against failures in our management. But they will also contribute to other objectives, including socio-economic well-being, sustainable use of fisheries in adjacent areas, and public enjoyment.

9. They should represent all ecosystems and contain examples of all marine biodiversity. They should contain sufficient area and replicates to ensure that they can fulfil their objectives and be ecologically viable over time. The AHTEG was unable to identify any simple formula for identifying whether such areas are representative, as this will depend on local circumstances (e.g., variability in habitats). Nevertheless, experience in terrestrial protected area work, the work on MCPAs to date, and the literature all indicate that the 'representative' concept will not be provided by a few small MCPAs.

10. Protection from human impacts would mean that any removal of indigenous biota would be prevented except to the extent necessary to allow essential scientific research and education (i.e., these would be no-take reserves), but also that other practices which significantly impact on biodiversity (e.g. substrate alteration, changes in sediment movements, pollution, visitor disturbance of sensitive species) would be prevented or minimized.

11. These MCPAs would be permanent. They would need to be viable, in the face of changing threats and long-term environmental change (e.g. climate change). Viability might depend on matters such as the nature of the legal protection, the presence of replicates, the design of the individual MCPAs, and the connectivity between MCPAs (directly or using other MCPAs as stepping stones).

12. Although public access may be encouraged in order to generate educational and enjoyment benefits, these benefits would be treated as secondary to the primary purposes listed above. Public access may need to be controlled to prevent unacceptable impacts.

13. Areas would need to be geographically dispersed across biogeographic regions and would need to be ecosystem-based, rather than focus on single species.

#### ***D. MCPAs where extractive uses are permitted***

14. MCPAs where extractive uses are permitted would contain areas that are subject to site-specific controls that have an explicit biodiversity objective or recognized biodiversity effect. Those controls may also have other objectives (e.g., economic or social objectives). In many countries these may comprise the majority of areas within MCPA networks and deliver most biodiversity benefits. Examples of such controls include controls on fishing methods (e.g., restricting bottom trawling), controls on the removal of certain species (e.g., habitat forming species), rotational closures, and controls on pollution and sedimentation.

15. Amongst the roles for these areas may be to maintain connectivity across the overall network, protect life cycle stages (e.g. as a result of spawning behaviour), and buffer the representative areas where extractive uses have been excluded.

#### ***E. Sustainable management of the wider environment***

16. The MCPA network would be sitting within a framework of sustainable management practices over the wider marine and coastal environment.

17. Sustainable management practices over the wider marine and coastal environment could include general restrictions that would apply to the entire area (e.g., bans on certain destructive fishing methods), and site-specific restrictions imposed for non-biodiversity purposes (e.g., trawling restrictions to protect cables, restricted areas for defence purposes). These practices can contribute to biodiversity protection in a number of ways, including:

(a) The management of more widespread issues that pose a threat to the effectiveness of individual MCPAs, and ultimately, the aim of regional networks. These threats usually arise from land-based sources, and include issues such as water quality, sedimentation and shipping/transport;

(b) Providing direct benefits to biodiversity (e.g. restrictions on trawling to prevent cable damage can also protect sensitive biodiversity such as corals and sponges);

(c) Protecting wide-ranging marine and coastal biodiversity species which are difficult to address through site-specific measures (e.g. restrictions on fishing practices that cause a by-catch of species such as albatross, marine mammals and turtles); and

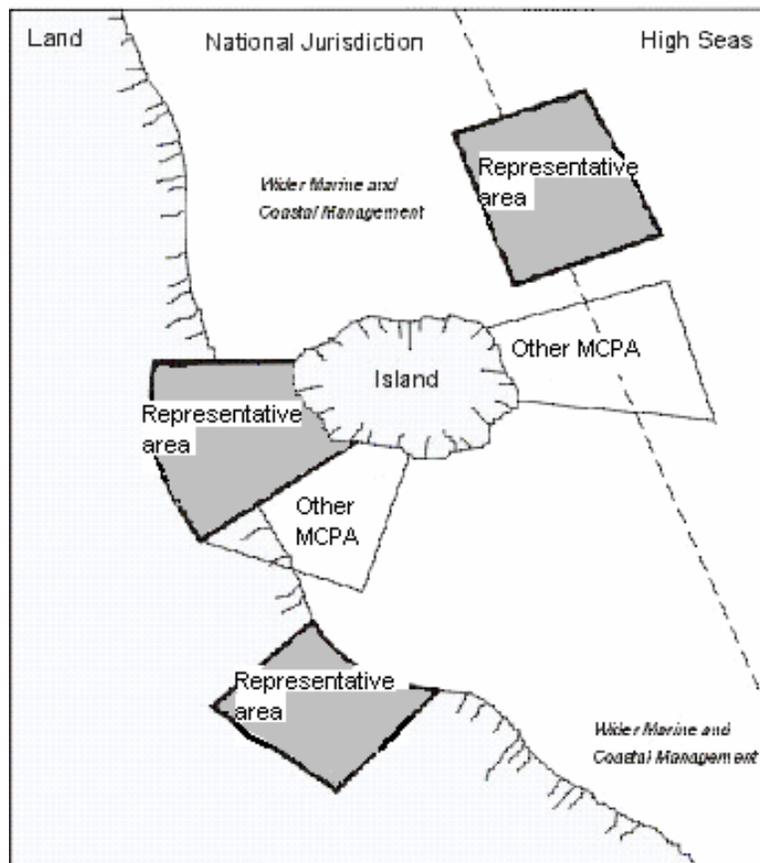
(d) Reducing impacts on the connections between MCPAs, e.g., by allowing the movement of larvae between MCPAs.

**F. International support for creation and management of MCPA networks**

18. The AHTEG identified a large number of impediments to the creation and management of MCPAs at the national level. There are a number of ways in which the international community can help to overcome these impediments. In particular, it can:

- (a) Provide active financial, technical and other support for MCPA work; and
- (b) Help to identify and remove both the barriers to the creation of MCPAs, and perverse incentives for unsustainable activities in the marine and coastal environment.

**ELEMENTS OF THE MARINE AND COASTAL  
BIODIVERSITY MANAGEMENT FRAMEWORK**



*Appendix 4*

**RESEARCH PRIORITIES, INCLUDING RESEARCH AND MONITORING PROJECTS  
ASSOCIATED WITH PROGRAMME ELEMENT 3: MARINE AND COASTAL  
PROTECTED AREAS <sup>11/</sup>**

The following research priorities and pilot projects are designed to both explore and enhance the linkages between marine and coastal protected areas and the sustainable use of marine and coastal living resources. Achieving the goal of sustainable use of living resources is dependent on the social, economic and cultural context of each MCPA, and therefore a number of the research priorities focus on this aspect of MCPAs. The effects of MCPAs on population size and dynamics (paragraph (d) of the terms of reference) are investigated through priority 2.1 (connectivity and proportionality), priority 2.3 (d) (climate change), priority 3.1 (MCPA size and location vs. species & habitat dynamics), and priority 3.6 (b) (percentage of protection required vs. size and dynamics of local population).

***A. Establishing a global network of MCPAs***

**Priority 1.1:** Developing and implementing national, regional and global strategies towards establishing networks of MCPAs.

*Pilot project:*

- (a) Parties, regional bodies and relevant organizations to bring to the attention of the Secretariat of the Convention on Biological Diversity existing and planned initiatives towards the development of networks of MCPAs.
- (b) Draft action-oriented strategies for establishing MCPA networks, and implement those strategies in line with regional initiatives, for example by holding regional workshops.

***B. Inventory and assessment of MCPAs and the global system***

**Priority 2.1:** Assessing the representativeness, connectivity and proportionality of the existing MCPA system.

*Pilot projects:*

- (a) Undertake initiatives to map ecosystems and habitats within regions and biogeographic areas, and determine the minimum level of broad habitat categories required for assessing representativeness of MCPA networks. Use this as a basis for assessing representativeness of the existing MCPA network. This work should use a high-level framework that is compatible with the basis for global inventory work. One possible approach to this work is to hold regional workshops.
- (b) Assess connectivity to determine bioregions, and apply this information for evaluation of the existing MCPA network, as well as for identifying priority areas for the future.
- (c) Assess the effectiveness of the current MCPA network regionally and globally for the conservation and sustainable use of migratory species.

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<sup>11/</sup> From SBSTTA recommendation VIII/3 B, annex I.

**Priority 2.2:** Developing appropriate databases at the national level to allow for an assessment of MCPA frameworks on a larger (regional/global) scale. Using these data to identify patterns among MCPAs to generate priority needs for future research and approaches for adaptive management.

*Pilot projects:*

- (a) Develop the high-level framework for the global inventory (see annex IV below), and related advice to national managers on national inventories.
- (b) Develop national databases for assessment of selected existing national/regional networks, selecting examples from the range of political, economic and biogeographic situations.
- (c) Undertake a global review of the current state of knowledge of MCPAs by region. Provide output in a format understandable for managers and policy makers.

**Priority 2.3:** Identifying the best indicators for assessing management effectiveness at various scales within an overall system.

*Pilot projects:*

- (a) Develop and test a suite of effective assessment measures, including indicators, on a number of existing sites (biological, socio-economic and governance-based indicators). Selected pilot sites must cover the range of cold, temperate and tropical regions.
- (b) Develop methods for evaluating the effectiveness of entire MCPA networks.
- (c) Develop methods for adapting MCPA management in response to possible changing species and habitat distribution patterns, which may result from climate change.

### ***C. Implementation of MCPA networks***

**Priority 3.1:** Develop methods to manage conflicts and generate support for adequate protection of biodiversity through area-specific approaches.

*Pilot project:*

- (a) Evaluate the long-term benefits (for example species changes, habitat changes and ecosystem changes) of protecting large-enough/significant-enough critical habitats and ecosystems, by developing case studies.

**Priority 3.2:** Establishing criteria for choosing MCPAs in countries that lack such criteria.

*Pilot project:*

- (a) Provide a conceptual model and best practice examples of criteria for selecting MCPAs, by undertaking linked work in a small number of selected countries.

**Priority 3.3:** Enhancing social and economic effects of MCPAs, particularly in terms of poverty alleviation.

*Pilot projects:*

- (a) Development of culturally sensitive MCPA development/management approaches to achieve effective participation, as appropriate, of indigenous and local communities and relevant stakeholders.

- (b) Develop adaptive approaches to MCPA establishment and management. This could be done by collection and dissemination of case studies of both best and worst-case examples of the degree to which an understanding of how target communities operate (socially/culturally) and “do business” can affect the success of MCPA establishment and management.

**Priority 3.4:** Developing effective “learning networks”—networking among MCPAs at the national/international level. Develop and test such networks in a representative range of test countries/regions.

*Pilot projects:*

- (a) Develop networks of communities/stakeholders of MCPAs to enable them to share and learn from experiences.
- (b) Compile information on existing learning networks, and develop guidance for the operation of such networks based on these experiences.

**Priority 3.5:** Developing effective methods for integrating traditional knowledge into MCPA establishment and management.

*Pilot project:*

- (a) Develop guidelines for integration of traditional knowledge, practices and innovation, with the participation of indigenous and local communities and with their prior informed consent in accordance with national legislation, into MCPA establishment and management, and support these by compiling and disseminating case studies on a wide range of examples from places where such initiatives have been undertaken (for example, New Zealand, Chile, the Wider Caribbean).

**Priority 3.6:** Developing strategies for integrating MCPAs and network development into long-term national and regional planning.

*Pilot projects:*

- (a) Develop strategies based on past experience and future needs for the range of geographical regions.
- (b) Develop methods for estimating the percentage of non-extractive protection required, in conjunction with national monitoring programmes, depending on the size and dynamics of local populations.
- (c) Incorporate considerations of sedimentation and water quality into planning and management processes.

*Appendix 5*

**RESEARCH AND MONITORING PRIORITIES ASSOCIATED WITH  
PROGRAMME ELEMENT 4: MARICULTURE 12/**

At the present time there is insufficient information available about the effects of mariculture on biodiversity and its mitigation. Therefore, additional efforts, including through the use of the knowledge, innovations and practices of indigenous and local communities as appropriate, should be developed in the following areas:

- (a) *General research needs:*
  - (i) Development of research programmes to support establishment of efficient monitoring programmes to monitor impacts of mariculture on marine and coastal biological diversity;
  - (ii) Development of criteria for judging the seriousness of biodiversity effects of mariculture;
  - (iii) Subsequent establishment of monitoring programmes to detect biodiversity effects of mariculture;
  - (iv) Research on the impact of escaped mariculture species on biodiversity;
  - (v) Development of criteria for when environmental impact assessments are required, and for the application of environmental impact assessments at all levels of biodiversity in the context of the guidelines endorsed by the Conference of the Parties in decision VI/7 A (genes, species, ecosystems), and the recommendations endorsed in decision VI/10, annex II;
  - (vi) Noting that the FAO glossary of terms is skewed towards marine capture fisheries, expansion of this glossary with regard to its terminology related to aquaculture;
  - (vii) Reinforcement of global assessments of marine and coastal biological diversity;

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12/ From SBSTTA recommendation VIII/3 C, annex.

- (b) *Research related to impacts of mariculture on genetic diversity:*
- (i) Development of genetic resource management plans for broodstock;
  - (ii) Research aimed at understanding genetic effects of biotechnology developments in aquaculture;
  - (iii) Research aimed at understanding genetic structure of both the farmed and wild populations, including:
    - Effects of genetic pollution from farmed populations on wild populations;
    - Maintenance of genetic viability of farmed populations;
    - Studies of (genetics of) wild populations as potential new candidates for mariculture;
- (c) *Research related to impacts of mariculture on species diversity:*
- (i) Support for basic global-scale taxonomic studies, possibly in conjunction with the Global Taxonomy Initiative (GTI);
  - (ii) Support for studies aimed at development of responsible aquaculture using native species;
  - (iii) Development of methods and techniques for limiting by-catch of seed collection;
- (d) *Research related to impacts of mariculture on ecosystem diversity:*
- (i) Research on carrying capacity and carrying capacity models for planning aquaculture, especially stocking rates;
  - (ii) Comprehensive studies to quantitatively and qualitatively assess effects of mariculture on biodiversity for various aquatic ecosystems, selected by their sensitiveness degree;
  - (iii) Research on the competitive nature imposed on marine fisheries by capture and culture fisheries;
  - (iv) Studies aimed at improved understanding of the effects of inputs, such as chemicals, hormones, antibiotics and feeds on biodiversity;
  - (v) Research on the impact of diseases in cultured and wild species on biodiversity;
- (e) *Research related to socio-economics, culture, policy and legislation:*
- (i) Comparative studies on legislation, economic and financial mechanisms for regulating mariculture activity;
  - (ii) Development of quantitative and qualitative criteria to assess mariculture impacts on the environment, including cultural and social impacts, as outlined in the recommendations of decision VI/10, annex II;
- (f) *Monitoring programmes:*
- (i) Support for mariculture-related disease monitoring programmes at the global level;
  - (ii) Support for the transfer of biotechnological diagnostic tools for wide use;

- (iii) Update of taxonomic database including genetic diversity at the intra-specific level.

*Annex II*

**GUIDANCE FOR THE DEVELOPMENT OF A NATIONAL MARINE AND COASTAL BIODIVERSITY MANAGEMENT FRAMEWORK**

1. For countries with no MCPAs or no highly protected MCPAs, the first step should be to develop the first few MCPAs, and the necessary mechanisms to allow future MCPAs and networks to be developed. The goals and objectives of each MCPA should be clearly established when they are created.
2. A strategic planning approach should be adopted at the national and regional levels when developing an ecologically viable framework for MCPA development. This should be based on past experiences in effective management, large-scale factors affecting MCPA viability and long-term goals.
3. Management should focus on ensuring that each MCPA, and the network, are fulfilling the identified goals and objectives. This will require evaluation of effectiveness, and adaptive management over time.
4. Key factors for achieving effective management of MCPAs include good governance, clear legal or customary frameworks to prevent damaging activities, effective compliance and enforcement, ability to control external activities that affect the MCPA, strategic planning, and sustainable financing.
5. Good governance will depend on having one or more bodies, each with the authority and capacity to undertake their responsibilities. When there is more than one body, including, in the case of transboundary areas, bodies in different countries, mechanisms for coordinating and integrating management will be vital.
6. The legal or customary framework should clearly identify:
  - (a) Prohibited activities that will be contrary to the objectives of the MCPA;
  - (b) Those activities which will be allowed with clear restrictions or conditions to ensure that they will not be contrary to the objectives; and
  - (c) A decision-making process for all other activities.
7. Minimizing the number of discretionary activities is desirable in order to minimize potential harmful impacts in the MCPA.
8. Effective enforcement will depend on:
  - (a) Adequate enforcement capacity, including clear responsibilities, inter-agency coordination, trained and equipped personnel and the necessary legal or customary powers;
  - (b) Appropriate penalties and associated legal provisions; and
  - (c) Integration between enforcement, voluntary compliance and management.
9. Governments should be encouraged to urgently address, through appropriate integrated marine and coastal management approaches, all threats, including those arising from the land (e.g., water quality, sedimentation and marine debris), and shipping/transport in order to maximize the effectiveness of MCPAs and the network in achieving their objectives for marine and coastal biodiversity.

10. The AHTEG identified stakeholder participation as essential for achieving the global goal and for the establishment and maintenance of individual MCPAs and regional networks. Stakeholder participation would be particularly important in establishing equitable sharing of benefits accruing from creation of MCPAs. In addition, stakeholder participation would:

- (a) Allow decisions to be made in an inclusive and transparent way;
- (b) Facilitate the involvement in decision-making and management of a wide range of players, increasing the likelihood of success;
- (c) Recognize traditional rights and customs, and other interests of indigenous and local communities and other relevant stakeholders in accordance with national law as appropriate; and
- (d) Allow decisions and management to be undertaken at the appropriate level (e.g., through decentralization).

11. It was recognized that the type and extent of participation will depend on local circumstances, including issues such as the traditional rights, customs and traditions of indigenous and local communities in accordance with national law, available mechanisms and governance approaches, and the degree of interest of stakeholders.

12. The AHTEG prepared detailed technical advice to Parties to assist them in developing their systems. This advice has been presented to SBSTTA as an information document.

### *Annex III*

#### **IMPROVEMENT OF AVAILABLE DATA FOR ASSESSMENT OF PROGRESS TOWARDS THE GLOBAL GOAL**

1. Since 1981, UNEP-WCMC has developed and maintained a global database on protected areas. The importance of this database, which is managed in collaboration with the IUCN World Commission on Protected Areas, has been broadly recognized. Within the database is a subset of clearly identified marine and coastal protected areas.

2. The AHTEG examined available information, consulted UNEP-WCMC (and indirectly WWF-International), and concluded that global data on MCPAs should be improved and/or gathered in the following critical categories:

- (a) **Location** (physical coordinates and country or political unit, including the names of neighbouring country/countries where the MCPA is transboundary);
- (b) **Total size** of the protected area, the relative size of the marine and coastal component and, where transboundary, the total area under country jurisdiction;
- (c) **Temporal aspects** e.g. permanency or seasonality of protection or management;
- (d) **Type of protection and management** proposed or being implemented, using a simple three-tier system:
  - (i) Representative highly-protected areas where extractive uses are excluded;
  - (ii) Additional MCPAs;
  - (iii) Sustainable management practice in the wider coastal and marine environment.

(e) **Effectiveness of protection and management** gauged against the regime being proposed or being implemented, using a simple three-tier system:

- (i) Currently fully effective – no significant problems known;
- (ii) Currently partially effective – some deficiencies;
- (iii) Currently ineffective – significant implementation problems.

(f) **Nationally-designated names** for type of protection and management e.g. marine park, marine and coastal nature reserve, etc.

(g) **Habitats protected and managed** (3D not just benthic).

(h) **Species protected and managed** (3D not just benthic).

(i) **Habitats and species specifically excluded from protection/management within the MCPA** (i.e. that have no legal protection).

(j) **Nature of threats to habitats/species** – see table 1.

(k) **Name and contact details** of person(s) providing the above information and date on which this was done.

3. These data categories are a core set, which would provide the key information needed to evaluate progress, and success. They consist of sufficiently few categories to make data collection rapid, easy and hopefully achievable. They would not only underpin the actions of the Convention in the marine and coastal environments but are also considered to be of value to the wider conservation community at global, regional and national levels.

4. The collection of information on habitats being protected and managed would need to be structured from a standard list. This would speed up and standardize data collection. This would need to consist of no more than 15 categories and would need to take a very high level approach. Such an approach needs to be developed but could use terms such as “coral, sea grass, mangrove, estuary, seamounts, etc.”. A similar approach would need to be taken over high-level categories to collect information on threats. Some first thoughts on such categories are provided in table 1. In both cases, a decision at the time of data collection would need to be made on which categories were relevant. Whilst this may cause difficulty on occasions, ‘fitting’ a site into this proposed management framework, any errors would be insignificant at the network, regional and global scales.

5. Data in other fields currently held within the world database on protected area of proven value to a wider audience, such as the IUCN management categories and GIS boundary data, could also be gathered but are not considered to be as important. IUCN category information will be collected for all sites on the United Nations list and so could be integrated into the above ‘global’ categories.

6. It is also important, in the context of the Convention on Biological Diversity, that additional contextual information be gathered for each signatory country on the nature of their marine and coastal environments. This would provide benchmarks against which data return would be analysed, progress tracked and future Convention policy determined. This information should include:

(a) *Total area of seas under country jurisdiction in km<sup>2</sup>* in accordance with the United Nations Convention on the Law of the Sea, and the criteria against which this measurement was made (e.g. high water to seaward limit of jurisdiction, low water to seaward limit); and

(b) *Habitat and species inventories.* In order to assess whether adequate action is being taken, habitat and species inventories to establish global extent and distribution will be required.

7. The former would enable coverage of the marine and coastal protected area network being established under the Convention on Biological Diversity at local, regional and global scales to be tracked, whilst the latter would provide a reference point against which to set future priorities for action under the Convention to address deficiencies. Both are essential for assessing achievement of the proposed global goal.

8. UNEP-WCMC and the IUCN World Commission on Protected Areas (WCPA), working in collaboration with UNEP regional seas offices and other relevant bodies, provide a vehicle by which such a consolidation and updating of global data on MCPAs could be achieved. The United States National Oceanographic and Atmospheric Administration currently chairs the WCPA marine programme, and is interested in using its resources and experience of marine and coastal issues to help develop the information base for making decisions on MCPAs.

9. The advent of Internet-based tools will greatly ease data-gathering and increase the accessibility of the information and its analysis to advise on local, regional and global progress and trends. Internet-based initiatives, and the predominate use of drop-down menus when gathering data from managers and practitioners, will also reduce data entry time and provide major advantages for the consistency and coherency, and ultimately reliability, of the dataset that needs to be gathered.

*Table 1.*

*Examples of six possible high-level categories that could be used globally to structure collection of information on the nature of the principal threats to habitats/species within MCPAs\**

<b><i>High level category</i></b>	<b><i>Sub-categories</i></b>
Physical loss	<ul style="list-style-type: none"> <li>• Removal (e.g. harvesting, draining to create dry land)</li> <li>• Smothering (e.g. by artificial structures, disposal of dredge spoil)</li> </ul>
Physical damage	<ul style="list-style-type: none"> <li>• Siltation (e.g. run-off, dredging, outfalls)</li> <li>• Abrasion (e.g. boating, anchoring, trampling)</li> <li>• Selective extraction (e.g. aggregate dredging, entanglement, turf cutting)</li> </ul>
Non-physical disturbance	<ul style="list-style-type: none"> <li>• Noise (e.g. boat activity)</li> <li>• Visual (e.g. recreational activity)</li> </ul>
Toxic contamination	<ul style="list-style-type: none"> <li>• Introduction of synthetic compounds (e.g. pesticides, antifoulants, PCBs)</li> <li>• Introduction of non-synthetic compounds (e.g. heavy metals, hydrocarbons)</li> <li>• Introduction of radio nuclides</li> </ul>
Non-toxic contamination	<ul style="list-style-type: none"> <li>• Nutrient enrichment (e.g. agricultural run-off, outfalls)</li> <li>• Organic enrichment (e.g. mariculture, outfalls)</li> <li>• Changes in thermal regime (e.g. outfalls, power stations)</li> <li>• Changes in turbidity (e.g. run-off, dredging)</li> <li>• Changes in salinity (e.g. water abstraction, outfalls)</li> </ul>

<i>High level category</i>	<i>Sub-categories</i>
Biological disturbance	<ul style="list-style-type: none"><li>• Introduction of microbial pathogens</li><li>• Introduction of non-native species and translocations</li><li>• Selective extraction of species (e.g. bait collection, wildfowling, commercial &amp; recreational fishing)</li></ul>

*Note:* one MCPA could qualify for a number of high-level categories.

**19. Cross-cutting issues: progress reports on implementation and consideration of proposals for future action**

**19.1. Identification, monitoring, indicators and assessments (Article 7)**

*Paragraphs 1 and 2 of the following draft decision are taken from paragraphs 2-5 of SBSTTA recommendation IX/1. The remaining paragraphs are taken from SBSTTA recommendation IX/10.*

*The Conference of the Parties*

**[Assessment processes]**

1. *Urges* Parties and other Governments to participate actively in the relevant review processes under the Global Forest Resources Assessment and the Millennium Ecosystem Assessment, as required;

**[Environmental impact assessment and strategic environment assessment]**

2. *Noting* that, in paragraph 4 of its recommendation IX/1, the Subsidiary Body on Scientific, Technical and Technological Advice decided to follow up on decision VI/7 A at one of its future meetings, in line with the multi-year programme of work of the Conference of the Parties up to 2010, *urges* Parties and other Governments that have not done so to contribute case-studies on current experiences in environmental impact assessment and strategic environmental assessment procedures that incorporate biodiversity-related issues as well as experiences in applying the guidelines contained in the annex to decision VI/7 A;

**[Monitoring and indicators: designing national-level monitoring programmes and indicators]**

3. *Notes* the indicators already in use by Parties as reported in annex I to the note by the Executive Secretary on designing national-level monitoring programmes and indicators prepared for the ninth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/9/10), and *welcomes* the ongoing efforts on the development of biodiversity indicators within the various thematic programmes and cross-cutting themes of the Convention;

4. *Also welcomes* the report prepared by the expert meeting on indicators of biological diversity including indicators for rapid assessment of inland water ecosystems (UNEP/CBD/SBSTTA/9/INF/7);

5. *Expresses its gratitude to* the Government of the United Kingdom of Great Britain and Northern Ireland for its financial support for the expert meeting on indicators of biological diversity, the co-chairs and all the experts for their contributions to the meeting;

6. *Notes and encourages* the collaboration between the Convention on Biological Diversity and other conventions and organizations in facilitating the development of national level indicators and monitoring programmes that Parties may draw upon if they so wish;

7. *Recognizes* that regional and national differences and different national priorities on the conservation and sustainable use of biodiversity necessitates a flexible approach at the national level but that there are benefits in promoting a more consistent framework for data gathering, computation and reporting that can contribute to the development of commonly agreed indicators at regional and global levels;

8. *Urges* all Parties that have not done so to develop a set of biodiversity indicators as part of their national strategies and action plans, taking into account, as appropriate, the targets of the Global Strategy for Plant Conservation and the target to achieve by 2010 a significant reduction in the current

rate of biodiversity loss at the global, regional and national level, as well as the guidance, lessons learned and list of indicators provided in the note by the Executive Secretary prepared for the ninth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/9/10) document, and to report on progress to the Conference of the Parties at its eighth meeting;

9. *Invites* Parties, other Governments and relevant organizations to make use of biodiversity indicators in their assessment of biodiversity, in particular in their assessment of progress towards the achievement of globally agreed targets such as those of the Global Strategy for Plant Conservation, the Strategic Plan of the Convention, the Plan of Implementation of the World Summit on Sustainable Development and the Millennium Development Goals;

10. *Agrees* that the framework contained in annex II to note by the Executive Secretary (UNEP/CBD/SBSTTA/9/10) provides useful guidance for the development of national-level biodiversity indicators and monitoring, emphasizing the use of existing national data, indicators and evaluation methods in a participatory and accessible approach;

11. *Recognizes* that the development and use of indicators, particularly in the development phase, requires a financial and technical commitment from Parties, and therefore *encourages* bi-lateral and multilateral funding agencies to assist developing countries, in particular the least developed and small island developing States among them, and countries with economies in transition through the provision of financial assistance and training, as required, to develop and implement effective biodiversity indicators;

12. *Acknowledges* that the project funded by the Global Environment Facility on biodiversity indicators in national use, might illustrate how each step proposed in the guidelines for indicator development contained in this document could be carried out in practice and thereby provides lessons on the practical development of biodiversity indicators;

13. *Encourages* Parties to share experience in the development and use of indicators and monitoring and to cooperate and promote, where useful, harmonized procedures and formats for data acquisition, computation and reporting, especially at subregional and regional levels;

14. *Requests* the clearing-house mechanism of the Convention to develop an effective system of information sharing on lessons learned on the development of national-level biodiversity indicators and monitoring, including through the presentation of worked examples and case-studies;

15. *Requests* the Executive Secretary to further develop the identification, development and testing of indicators based on accrued experience and making particular efforts on indicators: (i) concerning the fair and equitable sharing of the benefits arising out of the utilization of genetic resources; and (ii) on the status and trends of biodiversity at the genetic level, taking into account the ongoing work of the Food and Agriculture Organization of the United Nations (FAO), the International Plant Genetic Resources Institute (IPGRI), the Organisation for Economic Co-operation and Development (OECD) and other relevant organizations, and *invites* him to report on progress for the ninth meeting of the Conference of the Parties;

16. *Also requests* the Executive Secretary to identify, and bring to the attention of Parties, areas with potential for better co-ordination and integration, as applicable, between sets of indicators prepared within the various programmes of work and cross-cutting themes of the Convention to avoid duplication of efforts in developing indicators, data-gathering and reporting, particularly at the national level;

17. *Further requests* the Executive Secretary to update, complete and make available, through the clearing-house mechanism, the indicative list of indicator initiatives and sources of information contained in appendix 2 to annex II to the note by the Executive Secretary (UNEP/CBD/SBSTTA/9/10).

## 19.2. Global Taxonomy Initiative

*The following draft decision is taken from paragraph 1 of SBSTTA recommendation IX/3. The Conference of the Parties may also wish to consider, with a view to endorsing, the recommendation in paragraph 2 of the same recommendation that Parties give clear and specific guidance to the financial mechanism regarding adequate funding to developing countries for implementing the programme of work on the Global Taxonomy Initiative and for integrating taxonomic capacity-building activities with thematic and cross-cutting programmes, including both enabling activities and other projects.*

### *The Conference of the Parties*

1. *Notes* the progress and commitment being made in implementing the programme of work for the Global Taxonomy Initiative;
2. *Requests* Parties, other Governments and regional and international organizations to take full account of the importance of taxonomic capacities in achieving the goals of the Convention, to support taxonomic activities to attain the 2010 target, and to provide all necessary support to national and regional taxonomic centres of research and expertise;
3. *Requests* Parties to appoint national focal points for the Global Taxonomy Initiative as called for in decision V/9, and *urges* all Parties to ensure that those focal points work with their taxonomic communities taking into account the programme of work for the Global Taxonomy Initiative;
4. *Requests* Parties to appropriately include and give full support to the taxonomic work needed to accomplish the thematic and cross-cutting programmes of work and activities under the Convention;
5. *Requests* Parties to provide technical and financial support for the operations of the Coordination Mechanism of the Global Taxonomy Initiative;
6. *Requests* the Executive Secretary, in collaboration with the Coordination Mechanism for the Global Taxonomy Initiative to:
  - (a) Ensure that appropriate taxonomic expertise is included in inter-sessional meetings and expert groups convened by the Secretariat as appropriate;
  - (b) Develop the process and guidelines for the in-depth review, including mechanisms for monitoring progress in the implementation of the programme of work for the Global Taxonomy Initiative, to be finalized during the tenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice for consideration at the eleventh meeting of the Subsidiary Body; and
  - (c) Undertake a gap analysis of the existing programmes of work with respect to taxonomic components, in order to more effectively build taxonomy into the work programmes and to develop an understanding of the taxonomic capacity necessary to accomplish the targets of these programmes of work.

### 19.3. *Global Strategy for Plant Conservation*

*The following draft decision is taken from SBSTTA recommendation IX/14*

*The Conference of the Parties*

1. *Notes with satisfaction* the progress achieved in the further development and implementation of the Strategy in line with decision VI/9;
2. *Expresses appreciation* to the organizations that are facilitating stakeholder consultations in relation to the various targets of the Strategy, and to Botanic Gardens Conservation International for supporting the process of developing and implementing the Strategy, including through the secondment of a Programme Officer to the Secretariat of the Convention on Biological Diversity;
3. *Welcomes* the establishment of the global partnership for plant conservation and encourages the participating organizations to continue to contribute to the implementation of the Strategy, invites other organizations to join the partnership, and encourages Botanic Gardens Conservation International to continue its support for the partnership;
4. *Welcomes* the establishment, by the Executive Secretary, of a flexible coordination mechanism for the Strategy, comprising: liaison groups to be convened as necessary according to established procedures; national focal points, as determined by Parties; the Global Partnership for Plant Conservation; and the Secretariat, including the Programme Officer supported by Botanic Gardens Conservation International;
5. *Invites* the World Conservation Monitoring Centre of the United Nations Environment Programme to support the Executive Secretary in monitoring implementation of the Strategy, working in collaboration with the Global Partnership for Plant Conservation;
6. *Encourages* Parties to nominate focal points for the Strategy, or designate from among existing focal points, in order to:
  - (a) Promote and facilitate implementation and monitoring of the Strategy at national level, including the identification of national targets and their integration in national biodiversity strategies and action plans and sectoral and cross-sectoral plans programmes and activities;
  - (b) Promote the participation of national stakeholders in the implementation and monitoring of the Strategy at national level; and
  - (c) Facilitate communication between national stakeholders and the Secretariat and Global Partnership for Plant Conservation;
7. *Requests* the Executive Secretary, with the support of members of the global partnership for plant conservation, to elaborate proposals for a toolkit, including a checklist to assist Parties in integrating the targets into their strategies, plans and programmes, for review by the Subsidiary Body on Scientific, Technical and Technological Advice prior to the eighth meeting of the Conference of the Parties;
8. *Decides* to integrate the targets of the Strategy into all the thematic and relevant cross-cutting programmes of work of the Convention, and, in particular, to integrate:
  - (a) Target 1 into the Global Taxonomy Initiative;

- (b) Targets 4 and 5 into the programme of work on protected areas;
- (c) Target 10 into work on invasive alien species;
- (d) Targets 11, 12 and 13 in the work on sustainable use;
- (e) Targets 9 and 13 into work on Article 8(j) and related provisions;
- (f) Target 14 into the programme for communication, education and public awareness; and
- (g) Targets 6, 9 and 12 into the thematic programmes for agricultural biodiversity and forest biodiversity;

9. *Emphasizes* that, in line with paragraphs 3, 4, 6 and 7 of decision VI/9, the Strategy is to be implemented in a flexible way, and with due regard to the need for capacity building in identifying and achieving national targets, particularly in developing countries, especially the least developed and small island States among them, and countries with economies in transition;

10. *Decides* to integrate the targets of the Strategy into the reporting framework for the third national reports;

11. *Welcomes* the decisions of the Conference of the Parties and Plants Committee of the Convention on Trade in Endangered Species of Wild Flora and Fauna (CITES) to consider how they can contribute to the implementation of the Strategy, especially regarding target 11 (“No species of wild flora endangered by international trade”);

12. *Invites* the Commission on Genetic Resources for Food and Agriculture of the Food and Agriculture Organization of the United Nations to consider how the Global Plan of Action for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture contributes to the implementation of the Strategy, in particular target 9 (“70 per cent of the genetic diversity of crops and other major socio-economically valuable plant species conserved, and associated indigenous and local knowledge maintained”).

#### 19.4. Ecosystem approach

*Paragraphs 1-11 of the following draft decision are taken from SBSTTA recommendation IX/6. Paragraph 12 is an additional suggestion by the Executive Secretary.*

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

1. *Notes* that there has been significant experience in implementing the ecosystem approach by some Parties operating under the Convention, as well as experience in implementation of similar approaches to management under other national, regional and international processes, but that additional efforts are needed to ensure effective implementation of the approach by all Parties and other Governments. The scale of application of the ecosystem approach should be decided within countries according to their needs and circumstances;

2. *Agrees* that the priority at this time should be on facilitating the implementation of the ecosystem approach as a primary framework for addressing the three objectives of the Convention in a balanced way, and that a potential revision of the principles of the ecosystem approach should only take place at a later stage, when the application of the ecosystem approach has been more fully tested;

3. *Endorses* the implementation guidelines and annotations to rationale as outlined in annex I to the present decision, and *agrees* that they provide a good basis for moving towards implementation of the ecosystem approach, keeping in mind that in applying the ecosystem approach, all principles need to be considered, with appropriate weight given to each, in accordance with local conditions;

4. *Welcomes* the progress in developing the practical principles, operational guidance and associated instruments for sustainable use (the draft Addis Ababa Principles and Guidelines), which are based on the ecosystem approach as their overarching conceptual framework;

5. *Notes* the relevance of the conceptual framework of the Millennium Ecosystem Assessment in supporting the implementation of the ecosystem approach;

6. *Notes* that sustainable forest management, as developed within the framework established by the *Rio* Forest Principles, can be considered as a means of applying the ecosystem approach to forests (see annex II to the present decision). Further, there is potential for the tools developed under sustainable forest management to be used to help implement the ecosystem approach. These tools include *inter alia* the criteria and indicators developed under various regional and international processes, national forest programmes, “model forests” and certification schemes (as relating to decision VI/22 on forest biodiversity). There is substantial potential for mutual learning among those implementing both the ecosystem approach and sustainable forest management;

7. *Notes* that, in addition to sustainable forest management, many other existing approaches, which are also relevant to other environmental conventions, including “ecosystem based management”, “integrated river-basin management”, “integrated marine and coastal area management”, and “responsible fisheries approaches”, are consistent with the application of the Convention’s ecosystem approach, and support its implementation in various sectors or biomes. Implementation of the ecosystem approach in various sectors can be promoted by building upon the approaches and tools developed specifically for such sectors;

8. *Requests the* Executive Secretary, in collaboration with Parties and relevant international and regional organizations, to facilitate the undertaking of the following activities, and report on progress made to the Subsidiary Body on Scientific, Technical and Technological Advice prior to the eighth meeting of the Conference of the Parties:

(a) Undertake an analysis of the range of existing tools and approaches, that are consistent with the Convention's ecosystem approach, but operate on different levels and belong to a variety of sectors/communities, and are applied in programmes of work of the Convention on Biological Diversity, in order to learn from their experiences and build upon their approaches, and identify any gaps in the coverage of such tools;

(b) Where needed, facilitate development of new tools and techniques to enable the implementation of the ecosystem approach, and in collaboration with appropriate regional and international organization develop tools specific to each sector and biome;

(c) Continue collection of case-studies at national, sub-regional, regional and international level on the implementation of the ecosystem approach, and develop, in cooperation with the clearing-house mechanism, a database of case-studies, searchable by biome/ecoregion and sector;

(d) Make the above widely available to Parties through the development of a web-based "sourcebook" for the ecosystem approach, accessible through the clearing-house mechanism. This sourcebook should be non-prescriptive and allow adaptation to differing regional, national and local needs. It should be prepared in a language that is brief, non-technical and simple, ensuring its accessibility to practitioners working to implement the ecosystem approach on the ground. A supporting summary explanation of the ecosystem approach will also be prepared. It should be developed in collaboration with other relevant organizations, peer reviewed and field tested as appropriate, and made available through the clearing-house mechanism, in hard copy and on CD-Rom, and periodically revised;

9. *Recommends* that Parties and other Governments continue or start implementation of the ecosystem approach, including the implementation guidelines and annotations to the rationale as outlined in annex I to the present decision, and:

(a) Provide feedback on their experiences to the Executive Secretary and to other Parties, including by submitting further annotated case-studies and lessons learned for dissemination through the clearing-house mechanism;

(b) Provide technical input to the development and field testing of the "sourcebook";

(c) Promote the application of the ecosystem approach in all sectors with potential impacts on biodiversity and ecosystems, as well as inter-sectoral integration;

(d) Enhance and facilitate the sharing of experiences and expertise through approaches such as undertaking workshops to bring together experts and practitioners from different sectors and approaches;

(e) Promote better understanding of the ecosystem approach through programmes of communication, education and public awareness;

10. *Requests* that the Executive Secretary collaborate with the Coordinator and Head of the United Nations Forum on Forests Secretariat and members of the Collaborative Partnership on Forests in order to further integrate the concepts of ecosystem approach and sustainable forest management, in particular with respect to:

(a) Considering, within the ecosystem approach, lessons learned from application of tools specific to sustainable forest management, as part of the effort to move the ecosystem approach towards an increasingly outcome-oriented approach;

(b) Considering, within sustainable forest management, placing greater emphasis on:

- (i) Better cross-sectoral integration and inter-sectoral collaboration;
- (ii) The interactions between forests and other biome/habitat types within a landscape; and Biodiversity conservation issues, in particular through continued development of criteria, indicators and certification programmes (as relating to decision VI/22 on forest biodiversity), and including protected areas;

11. *Requests* the Executive Secretary, in collaboration with Parties and relevant international and regional organisations, to assess the implementation of the ecosystem approach in light of the experiences gained from the activities under paragraphs 8, 9 and 10 above for the consideration of the Subsidiary Body on Scientific, Technical and Technological Advice prior to the ninth meeting of the Conference of the Parties;

12. *Invites* the Global Environment Facility, other funding institutions and development agencies to provide financial support for the implementation of the ecosystem approach.

### *Annex I*

## **REFINEMENT AND ELABORATION OF THE ECOSYSTEM APPROACH, BASED ON ASSESSMENT OF EXPERIENCE OF PARTIES IN IMPLEMENTATION**

### ***A. Further guidance on the implementation of the ecosystem approach principles***

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. The application of the ecosystem approach will help to reach a balance of the three objectives of the Convention: conservation; sustainable use; and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. In addition the ecosystem approach has been recognized by the World Summit on Sustainable Development as an important instrument for enhancing sustainable development and poverty alleviation.

2. The ecosystem approach is based on the application of appropriate scientific methodologies focused on levels of biological organisation, which encompass the essential structure, processes, functions and interactions among organisms and their environment. It recognises that humans, with their cultural diversity, are an integral component of many ecosystems.

3. The ecosystem approach provides an integrating framework for implementation of objectives of the Convention on Biological Diversity. The approach incorporates three important considerations:

(a) Management of living components is considered alongside economic and social considerations at the ecosystem level of organisation, not simply a focus on managing species and habitats;

(b) If management of land, water, and living resources in equitable ways is to be sustainable, it must be integrated and work within the natural limits and utilize the natural functioning of ecosystems;

(c) Ecosystem management is a social process. There are many interested communities, which must be involved through the development of efficient and effective structures and processes for decision-making and management.

4. The approach is an overall methodological framework for supporting decisions in policy-making and planning, within which those implementing the Convention can develop more specific approaches appropriate to their particular circumstances. The ecosystem approach is a tool that contributes to the implementation of various issues addressed under the Convention, including the work on, *inter alia*,

protected areas and ecological networks. There is no single correct way to achieve the ecosystem approach to management of land, water, and living resources. The underlying principles can be translated flexibly to address management issues in different social contexts. Already, there are sectors and governments that have developed sets of guidelines that are partially consistent, complementary or even equivalent to the ecosystem approach (e.g. the Code for Responsible Fisheries, the Sustainable Forest Management approach, adaptive forest management).

5. There are a number of options for implementing the ecosystem approach. One is the incorporation of the principles into the design and implementation of national biodiversity strategies and action plans and regional strategies. Others include incorporation of the ecosystem approach principles into policy instruments, mainstreaming in planning processes, and sectoral plans (e.g., in forest, fisheries, agriculture). In addition, Parties and the various bodies of the Convention on Biological Diversity should be encouraged to work to achieve synergies between the ecosystem approach and the various programmes of work of the Convention on Biological Diversity, as well as promoting linkages with other international initiatives. To implement the ecosystem approach, countries should incorporate its principles or identify pre-existing, consistent or equivalent guidelines, in the appropriate institutional, legal and budgetary channels. Work by Convention bodies and other relevant organizations should be focused on supporting local and regional efforts as a contribution to achieving the Millennium Development Goals.

6. It should be stressed that in applying the ecosystem approach, all its principles need to be considered in a holistic way, and appropriate weight given to each, according to local circumstances.

7. Notwithstanding the need for implementation to be designed to fit with the particular circumstances of the relevant problems, there is strong potential for shared experiences and expertise between ecosystems and countries. The clearing-house mechanism established under Article 18 should be the primary focus for facilitating that cooperation. A solid and broad understanding of the principles, their intentions and their consequences, is an essential condition for their application. A communication strategy for promoting the ecosystem approach to relevant target groups, within and outside the conservation sector, can be a useful tool.

8. The donor community, like governments, while noting the value of the ecosystem approach in fostering better ecosystem stewardship, should also be encouraged to be flexible in promoting its application in setting priorities and funding decisions, to allow for other perspectives, and different capacities to respond to the principles.

9. After assessing the experience of Parties in implementing the ecosystem approach decisions of the Conference of the Parties, it was noted that while the principles were not always precisely worded expressions of the concepts they incorporated, they nevertheless reflected the meaning of important concepts. The experience of Parties did not suggest a need for change to the decisions of the Conference of the Parties, but simply for the provision of additional advice and elaboration to overcome any problems of clarity and interpretation.

10. With this in mind, the following text and table 1 provide some suggestions on approaches for implementation and implementation support. These include annotations to the rationale, implementation guidelines for each principle and clarification of crosscutting aspects of the ecosystem approach.

***B. Additional explanatory notes on cross-cutting issues related to operational guidance***

11. In applying the operational guidance of the ecosystem approach ecosystem approach, the following cross-cutting issues need to be considered.

### ***Initiating the approach***

12. When initiating the ecosystem approach the first task is to define the problem that is being addressed. In doing so the scope of the problem and the task to be undertaken has to be well specified. The strategy to be followed to promote the ecosystem approach has to be clearly defined with contingencies for unforeseen situations incorporated into the strategy. The approach should consider all principles as a package but depending upon the task at hand emphasis on particular principles may be warranted. A collective ownership for the vision, strategy and parameters for the ecosystem approach relevant to the task has to be developed, communicated, and facilitated among partners and sponsors. Collectively developing the overarching goals, objectives, targets for the exercise is important before applying the ecosystem approach.

### ***Capacity-building and collegiate will***

13. To apply the ecosystem approach successfully it is critical to investigate what resources and sponsorship are required to undertake the exercise. This can be in the form of capacity-building and fostering collegiate will.

14. Collegiate will can be in terms of community partnerships, stakeholder engagement, political and institutional will, and the commitment of donors or sponsors. An important consideration is the length of time such collegiate will is required; that is, it may be required in the initiation phase, assessment phase or the phase associated with implementation of outcomes. Examples of where the ecosystem approach has been compromised can be from a loss of allegiance from one or more of the community, other stakeholders, the political establishment and institutions, or sponsors and donors.

15. Capacity-building is also important for the success of the ecosystem approach. Adequate financial support and appropriate infrastructure support are important requirements to the success of an approach. So too is access to suitable expertise and the sharing of knowledge and experience. In undertaking the ecosystem approach it is useful to build from lessons learnt from other undertakings applying the ecosystem approach. Technology, including decision support tools and inventory systems, which have been developed in other applications of the ecosystem approach, may be transferable or can be adapted.

### ***Information, research and development***

16. The collection of resource, biophysical, social, and economic information is important to the successful completion of the ecosystem approach. Research and development is needed to target strategic gaps in knowledge that are important for addressing the exercise at hand. Knowledge derived from research and information from other sources has to be integrated and packaged into information products (including decision-support systems) that allow and provide for interpretation, and which facilitate their use in applying the ecosystem approach. Information products are necessary for communicating with stakeholders, planners, managers and decision makers. Consideration should be given to enhancing the access of stakeholders to information because the more transparent the decision-making is, based on information at hand, the better the ownership of the resultant decisions between partners, stakeholders and sponsors. Priorities for research and development are likely to be clearer once the ecosystem approach begins to be applied and implementing actions are put in place.

### ***Monitoring and review***

17. Monitoring and review are crucial components in implementing the ecosystem approach the ecosystem approach. They allow a responsive and adaptive management capability to be developed. Monitoring and review are also useful in reporting performance and the resultant outcomes of the approach. Indicators of performance should be defined, developed and implemented. Appropriate monitoring and auditing systems need to be implemented to support reporting on indicators of performance. Periodic reviews of these indicators need to be undertaken to assess performance and whether adaptive management needs to be applied. Strategies, practices and processes may need to be modified depending upon the findings from monitoring and auditing.

***Governance***

18. Good governance is essential for successful application of the ecosystem approach. Good governance includes sound environmental, resource and economic policies and administrative institutions that are responsive to the needs of the people. Robust and sound resource management systems and practices are required to support these policies and institutions. Decision-making should account for societal choices, be transparent and accountable and involve society. Accountability for making decisions has to be placed at the appropriate level that reflects that community of interest. For example strategic landuse planning and management might be taken by central government, operational decisions taken by local government or management agency, whereas decisions associated with the sharing of benefits could be taken by a community organisation.

19. Good governance at all levels is fundamental for achieving sustainable use and conservation of biodiversity. It is important to ensure intersectoral cooperation. There is 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).

**Table 1:** The 12 Principles of the ecosystem approach and their rationale (decision V/6 of the Conference of the Parties, <http://www.biodiv.org/decisions/default.asp?lg=0&dec=V/6>), suggested annotations to the rationale and implementation guidelines.

**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.

#### *Annotations to the rationale:*

*The objectives for managing land, water, and living resources is a matter of societal choice, determined through negotiations and trade-offs among stakeholders having different perceptions, interests, and intentions. In this regard it should be noted that:*

- *Human society is diverse in the kind and manner of relationships that different groups have with the natural world, each viewing the world around them in different ways and emphasising their own economic, cultural, and societal interests and needs.*
- *All relevant sectors of society need to have their interests equitably treated, which may involve providing for different outcomes in separate locations or at different times.*
- *It is also necessary to ensure that the needs of future generations and the natural world are adequately represented.*
- *Given this diversity, good decision-making processes that provide for negotiations and trade-offs are necessary to establish broadly acceptable objectives for the management of particular areas and their living resources.*
- *Good decision-making processes incorporate the following characteristics:*
  - *All interested parties (particularly including indigenous and local communities) should be involved in the process,*
  - *It needs to be a clear how decisions are reached and who the decision-maker(s) is(are),*
  - *The decision-makers should be accountable to the appropriate communities of interest,*
  - *The criteria for decisions should be appropriate and transparent, and*
  - *Decisions should be based on, and contribute to, inter-sectoral communication and coordination.*
- *Good decisions depend on those involved having access to accurate and timely information and the capacity to apply this knowledge.*

#### **Implementation guidelines**

- 1.1 Involve all stakeholders (interested parties) (including indigenous and local communities) in:
  - clearly articulating, defining and agreeing upon the goals of management
  - defining problems
  - making choices (in principle 12).
- 1.2 There need to be clearly defined boundaries (in time and space) for the management unit that is the subject of the societal choice process.
- 1.3 Ensure that those stakeholders that cannot directly represent themselves (e.g. future generations, the natural world) are adequately represented by someone else.
- 1.4 Ensure that all stakeholders have an equitable capacity to be effectively involved, including through ensuring equitable access to information, ability to participate in the processes, etc.
- 1.5 Ensure that the decision-making process compensates for any inequities of power in society, in order to ensure that those who are normally marginalised (e.g. women, the poor, indigenous people) are not excluded or stifled in their participation.
- 1.6 Determine who the decision-makers are for each decision, how the decisions will be taken (what process will be used), and what are the limits on the discretion of the decision-maker (e.g. what are the criteria for the decision in law, what is the overall policy guidance within which the decision must fit, etc).
- 1.7 Ensure that the recognition of stakeholder interests occurs within the full range of decisions over time and space and levels. In doing so, however, ensure that “stakeholder fatigue” does not develop, by incorporating known stakeholder views into future decisions, and allowing efficient stakeholder input.
- 1.8 Where possible, use existing societal mechanisms, or build new mechanisms that are compatible with existing or desired societal conditions.

- 1.9 Ensure that decision-makers are accountable to the appropriate communities of interest.
- 1.10 Develop the capacity to broker negotiations and trade-offs, and manage conflicts, among relevant stakeholder groups in reaching decisions about management, use and conservation of biological resources.
- 1.11 There need to be mechanisms in place to ensure that, once an appropriate societal choice has been made, the decision will be able to be implemented over the long term, i.e. policy, legislative and control structures need to be in place.

**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.

**Annotations to the rationale:**

*Decisions should be made by those who represent the appropriate communities of interest, while management should be undertaken by those with the capacity to implement the decisions. In this regard it should be noted that:*

- *There are usually many communities-of-interest in ecosystem management. These can be compatible, complimentary, or contradictory. It is important to ensure that the level of decision-making and management selected maintains an appropriate balance among these interests.*
- *Often, but not always, the closer the decision-making and management are to the ecosystem, the greater the participation, responsibility, ownership, accountability and use of local knowledge will be, all of which are critical to the success of management.*
- *Because there are several levels of interests with people who have varying capacities to address different aspects of ecosystem management, there are often multiple decision-makers and managers with different roles for any individual place or resource.*
- *Decisions made by local resource managers are often affected by, or even subordinate to, environmental, social, economic and political processes that lie outside their sphere of influence, at higher levels of organisation. Therefore there is a need for mechanisms to coordinate decisions and management actions at a number of different organisational levels.*

**Implementation guidelines**

- 2.1 The multiple communities of interest should be identified, and decisions about particular aspects of management assigned to the body that represents the most appropriate community of interest. If necessary, management functions/decisions should be subdivided. For example, strategic decisions might be taken by central government, operational decisions by a local government or local management agency, and decisions about allocation of benefits between members of a community by the community itself.
- 2.2 The potential adverse effects of fragmented decision-making and management responsibilities should be compensated for by:
  - ensuring that decisions are appropriately nested and linked
  - sharing information and expertise
  - ensuring good communication between the different management bodies
  - presentation of the overall combination of decisions/management to the community in an understandable and consolidated form so they can effectively interact with the overall system.
  - supportive relationships between the levels.
- 2.3 Good governance arrangements are essential, particularly:
  - clear accountabilities
  - accountabilities of the necessary authorities
  - accountabilities of competent bodies or persons

Note that this is not a complete enough list, and there seems no good reason to particularly identify these.

- 2.4 Achieving an appropriate level of decentralisation requires taking decisions at a higher level to create an enabling and supportive environment, as well as a commitment to devolve those

decision-making responsibilities that are currently situated at too high a level.

- 2.5 In choosing the appropriate level of decentralisation, the following are relevant factors that should be taken into account in choosing the appropriate body. .
- whether the body represents the appropriate community of interest
  - whether the body has a commitment to the intent of the function
  - whether the body has the necessary capacity for management
  - efficiency (e.g. by moving the function to a higher level you may have sufficient work to allow maintenance of the necessary level of expertise to do the function efficiently and effectively).
  - whether the body has other functions which represent a conflict of interest
  - the effect on marginalised members of society (e.g. women, marginalised tribal groups)

In some cases problems could be corrected, such as through capacity-building. If no appropriate body is available at the level, a new body might be created, or an existing body modified, or a different level chosen.

- 2.6 Where functions are to be moved to another level, it is necessary to ensure that the body receiving the responsibility has sufficient capacity to fulfil that responsibility (e.g. resources, systems, authority), and that any risks arising from the transition can be managed. This means doing capacity-building if necessary to allow the decentralisation to occur.

Institutional arrangements are the key. If you don't have the institutional structure that supports and coordinates the decision-making authorities then their work is worthless.

**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.

**Annotations to the rationale:**

*Ecosystems are not closed systems, but rather open and often connected to other ecosystems. This open structure and connectedness of ecosystems ensures that effects on ecosystem functioning are seldom confined to the point of impact or only to one system. In this regard it should be noted that:*

- *The effects of management interventions, or decisions not to intervene, are therefore not confined solely to the point of impact.*
- *The effects between ecosystems are frequently non-linear and will likely have associated time-lags.*
- *Management systems need to be designed to cope with these issues.*

*There is a need for this to reflect the fact that impacts are in both directions – into and*

#### **Implementation guidelines**

- 3.1 Natural resource managers, decision makers and politicians should consider the possible effects that their actions could have on adjacent and downstream ecosystems (river basins and coastal zones) so that effects inside and outside the ecosystem are determined.
- 3.2 Where impacts of management or use of one ecosystem has or is projected to have effects elsewhere, bring together relevant stakeholders and technical expertise to consider how best to minimise adverse consequences
- 3.3 Environmental impact assessment (EIAs), including strategic environmental assessments (SEAs) should be carried out for developments that may have substantial environmental impacts taking into account all the components of biological diversity. These assessments should adequately consider the potential offsite impacts. The results of these assessments,

*out of a particular ecosystem. Not just adjacent and downstream, but those have other connections as well (e.g. systems linked by migratory species).*

which can also include social impact assessment, should subsequently acted upon. When identifying existing and potential risks or threats to ecosystem, different scales need to be considered.

- 3.4 Establish and maintain national and regional monitoring systems to measure the effects of selected management actions across ecosystems. Plus matching management follow-up (cf 5.9)

Develop specific mechanisms (this needs to be broader and not push towards any particular mechanism such as a protocol) to address transboundary issues associated with shared ecosystems and with transboundary transfer of ecological impacts (e.g. air and water pollution).

**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.

**Annotations to the rationale:**

*Many ecosystems provide economically valuable goods and services and it is therefore necessary to understand and manage ecosystems in an economic context. Frequently economic systems do not make provision for the many, often, intangible values derived from ecological systems In this regard it should be noted that:*

- *Ecosystem goods and services are frequently undervalued in economic systems.*
- *Even when valuation is complete, most environmental goods and services have the characteristic of “public goods” in an economic sense, which are difficult to incorporate into markets.*
- *It is often difficult to introduce new uses of ecosystems, even where these are less impacting or provide wider benefits to society, because economic and social systems exhibit significant inertia, particularly where strong existing interests are affected by and resist change.*
- *Many stakeholders with strong interests in the ecosystem, but having limited political and economic influence, may be marginalized from the relevant economic systems.*
- *Where those who control use of the land do not receive benefits from maintaining natural ecosystems and processes, they are likely to initiate unsustainable land use practices from which they will benefit directly in the short term. To counter this*

#### **Implementation guidelines**

- 4.1 Develop an understanding of the social and economic context of the issue to which the ecosystem approach is being applied
- 4.2 Apply appropriate practical economic valuation methodologies for ecosystem goods and services (direct, indirect and intrinsic values); and for the environmental impacts (effects or externalities).
- 4.3 Aim to reduce those market distortions that adversely affect biological diversity
- 4.4 Align economic and social incentives to promote biodiversity conservation and sustainable use.
- 4.5 Internalize costs and benefits in the given ecosystem to the extent feasible.
- 4.6 Evaluate the direct as well as indirect economic benefits associated with good ecosystem management including biodiversity conservation and environmental quality.
- 4.7 Enhance benefits of using biological diversity.

- *more equitable sharing of benefits is advised.*
- *International, national and sub-national policies, laws and regulations, including subsidies may provide perverse incentives for unsustainable management of ecosystems. Economic systems therefore need to be redesigned to accommodate environmental management objectives.*
- *Addressing the issue of market distortions that adversely affect biodiversity will require establishing dialogue with other sectors.*

*Deriving economic benefits is not necessarily inconsistent with attaining biodiversity conservation and improvement of environmental quality.*

**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.

**Annotations to the rationale:**

*Biodiversity conservation and the maintenance of human wellbeing depend on the functioning and resilience of natural ecosystems. In this regard it should be noted that:*

- *Ecosystem services – the benefits people obtain from ecosystems by way of resources, environmental regulation including, support of biospheric processes, inputs to culture, and the intrinsic values of the systems themselves – depend on maintaining and, where appropriate, restoring particular ecological structures and functions.*
- *Ecosystem functioning and resilience depend on inter-relationships within and among species, between species and their abiotic environments, and on the physical and chemical interactions within these environments.*
- *Given this complexity, management must focus on maintaining, and where appropriate restoring, the key structures and ecological processes (e.g., hydrological systems, pollination systems, habitats and food webs) rather than just individual species.*
- *Given that the loss of genetic diversity predisposes populations and species to local extinction, the conservation of ecosystem composition and structure requires monitoring of population sizes of vulnerable and economically important species.*

*Management of ecosystem processes has to be carried out despite incomplete knowledge of ecosystem functioning.*

4.8 Ensure equitable sharing of costs and benefits.

Incorporate social and economic values of ecosystem goods and services into National Accounts, policy, planning, education and resource management decisions

**Implementation guidelines**

- 5.1 Improve understanding of the interrelationship among ecosystem composition, structure and function with respect to (i) human interaction, needs and values (including cultural aspects), (ii) conservation management of biodiversity, and (iii) environmental quality, integrity and vitality.
- 5.2 Determine and define conservation, social and economic objectives and goals that can be used to guide policy, management and planning using participatory processes.
- 5.3 Assess the extent to which ecosystem composition, structure can function contribute to the delivery of goods and services to meet the desired balance of conservation, social and economic outcomes.
- 5.4 Expand knowledge of the responses of ecosystems, in terms of changes in composition, structure and function, to both internally and externally induced stresses caused by, *inter alia*, human use, disturbance, pollution, fire, alien species, disease abnormal climatic variations (drought, flood) etc.
- 5.5 Develop and promote management strategies and practices that enable and ensure conservation of ecosystem service and take account of, or minimise, risks/threats to ecosystem function and structure.
- 5.6 Apply instruments to maintain and/or restore ecosystem service.
- 5.7 Where required, develop management strategies and practices to facilitate recovery of ecosystem structure and function (including threatened components) to generate or enhance ecosystem services and biodiversity benefits.

- 5.8 Develop and apply instruments that contribute to achievement of conservation management goals through a combination of managing protected area networks, ecological networks and areas outside of such networks to meet both short-term and long-term requirements and conservation outcome.
- 5.9 Monitoring population sizes of vulnerable and important species should be linked to a management plan that identifies appropriate response measures and actions.

**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

*Annotations to the rationale:*

*There are limits to the level of demand that can be placed on an ecosystem while maintaining its integrity and capacity to continue providing the goods and services that provide the basis for human wellbeing and environmental sustainability. Our current understanding is insufficient to allow these limits to be precisely defined, and therefore a precautionary approach coupled with adaptive management, is advised. In this regard it should be noted that:*

- *Just as there are limits to the demands (production, off-take, assimilation, detoxification) that can be made on ecosystems, so too there are limits to the amount of disturbance that ecosystems can tolerate, depending on the magnitude, intensity, frequency and kind of disturbance.*
- *These limits are not static but may vary across sites, through time, and in relation to past circumstances and events.*
- *Cumulative effects of interventions over time and space should be assessed when considering ecosystem limits.*
- *If these limits are exceeded, an ecosystem undergoes substantial change in composition, structure and functioning, usually with a loss of biodiversity and a resulting lower productivity and capacity to process wastes and contaminants*
- *There is considerable lack of knowledge and uncertainty about the actual limits (thresholds for change) in different ecosystems. While further research can reduce these uncertainties, given the dynamic and complex nature of ecosystems we may never have perfect understanding.*
- *Given the pervasiveness of uncertainties in managing ecosystems, management will need to be adaptive, with a focus on active learning derived from monitoring the outcomes of planned interventions using a sound experimental approach that allow*

**Implementation guidelines**

- 6.1 Identify practices that are not sustainable and develop appropriate mechanisms for improvement involving all stakeholders.
- 6.2 Given the uncertainty associated with defining the limits to ecosystem functioning under most circumstances, the precautionary approach should be applied.
- 6.3 Implement an adaptive management approach.
- 6.4 Develop understanding of the limits of ecosystem functioning and the effects of various human use on the delivery of ecosystem goods and services.
- 6.5 Where permissible limits to change in specific ecosystem components can be agreed, manage within these but monitor and assess the ecosystem response. Feedback the information at regular intervals to those responsible for setting the off-take or other limits.
- 6.6 Encourage the use of environmental assessments and monitoring to establish ecosystem responses to disturbance, in order to provide management feedback and develop appropriate responses.
- 6.7 Develop and promote appropriate management strategies and practices that sustain resources and maintain ecosystems within the limits of their functioning.
- 6.8 Sustainable use management goals and practices should avoid or minimize adverse impacts on ecosystem services, structure and functions as well as other components of ecosystems.
- 6.9 Formulate, review and implement regulatory framework, codes of practice and other instruments to avoid using ecosystems beyond their limits.

*the effects of the intervention to be accurately determined.*

*Management to restore lost capacities or control use should be appropriately cautious and apply an adaptive management approach.*

**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.

**Annotations to the rationale:**

*The driving forces of ecosystems, including those due to human activities, vary spatially and through time, necessitating management at more than one scale to meet management objectives. In this regard it should be noted that:*

- *Ecosystems are made up of biotic and abiotic components and processes, which function at a range of spatial and temporal scales, within a nested hierarchy.*
- *The dynamics of human social and economic systems also vary across scales of space, time and quality.*
- *How components are perceived spatially depends partly on the scale of observation. At one scale, individuals of a species may seem relatively regularly and continuously distributed; at another the distribution may be discontinuous. Likewise with time, for example, at one time scale (e.g., monthly, annually) a component or process may appear predictable; at another, longer or shorter time scale, the temporal dynamics may be unpredictable.*
- *Management processes and institutions should be designed to match the scales of the aspects of the ecosystem being managed. More importantly, perhaps, given that ecosystem components and processes are linked across scales of both space and time, management interventions need to be planned to transcend these scales.*
- *Failure to take scale into account can result in mismatches between the spatial and time frames of the management and those of the ecosystem being managed. For example, policy makers and planners sometimes may have to consider shorter time frames than the time frames of major ecosystem processes. The reverse can also be true, for example, where bureaucratic inertia can delay the quick management response needed to address a rapidly changing environmental condition. Spatial mismatches are also common, such as when administrative boundaries and those of ecosystem properties or related human activities that they are designed to regulate do not coincide.*

**Implementation guidelines**

- 7.1 Enhanced capacity is required to analyze and understand the temporal and spatial scales at which ecosystem processes operate, and the effect of management actions on these processes and the delivery of ecosystem goods and services. Identification of spatial patterns and gaps in connectivity should be included in this analysis.
- 7.2 Functional mismatches in the administration and management of natural resources should be avoided by readjusting the scale of the institutional response to coincide more closely with spatial and temporal scales of processes in the area under management. This logic underpins the current global trend towards decentralised natural resource management.
- 7.3 Given that ecosystem components and processes are linked across scales of both time and space, management interventions need to be planned to transcend these scales. Developing a nested hierarchy of spatial scales may be appropriate in some circumstances.
- 7.4 Managing large areas such as river basins or large marine areas may require development of new institutional mechanisms to engage stakeholders across administrative borders and different levels of administration.
- 7.6 Attention to spatial and temporal scales is needed in the design of assessment and monitoring efforts.
- 7.7 Concepts of stewardship, intergenerational equity and sustainable yield need to be applied to considerations of the temporal scale.
- 7.8 Regional collaboration is necessary to deal with large-scale changes.

**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.

**Annotations to the rationale:**

*Time needs to be considered explicitly in formulating management plans, and in longer-scale processes need to especially considered and planned for because these are otherwise often neglected. In this regard it should be noted that:*

- *People find long-term trends more difficult to detect than short term trends, particularly in complex systems.*
- *Management systems tend to operate at relatively short time scales, often much shorter than the timescales for change in ecosystem processes.*
- *Where there is a lag between management actions and their outcomes, it is difficult to take reasoned management decisions.*
- *Long-term ecological processes, which can be very important, are therefore likely to be poorly accommodated in management systems, unless these are explicitly and carefully designed to address long-term issues.*

*Awareness of long-term processes is important because it is the long-term, spatially, extensive processes that both characterise and determine the broad ecosystem properties.*

#### **Implementation guidelines**

- 8.1 Adaptive management processes should include the development of long-term visions, plans and goals that address inter-generational equity, while taking into account immediate and critical needs (e.g., hunger, poverty, shelter).
- 8.2 Adaptive management should take into account trade-offs between short-term benefits and long-term goals in decision-making processes.
- 8.3 Adaptive management should take into account the lag between management actions and their outcomes.
- 8.4 Monitoring systems should be designed to accommodate the time scale for change in the ecosystem variables selected for monitoring. Alternatively, if the monitoring cannot be adjusted, a more appropriately scaled but still relevant variable should be selected to monitor.
- 8.5 The capacity to monitor and detect long-term, low frequency changes in ecosystem structure and functioning should be strengthened.
- 8.6 To implement long-term management requires stability of institutions, legal and policy frameworks, monitoring programs, and extension and awareness-raising programs.

**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.

**Annotations to the rationale:**

*Change in ecosystems is both natural and inevitable, and therefore management objectives should not be construed as fixed outcomes but rather the maintenance of natural ecological processes. In this regard it should be noted that:*

- *Ecosystems change constantly as a result of natural processes. Those changes include shifts in species composition, population abundance, and physical*

#### **Implementation guidelines**

- 9.1 Adaptive management is needed to respond to changing social and ecological conditions, and to allow management plans and actions to evolve in light of experience.
- 9.2 Natural resource managers must recognise that natural and human-induced change is inevitable and take this into account in their management plans.
- 9.3 Adaptive management should be encouraged when there is a risk degradation or loss

- characteristics.
- Such changes are not necessarily constant, variable, dynamic and usually difficult to predict at any point in time.
- It is therefore difficult to select an appropriate outcome or future state of an ecosystem as a static management goal. Instead, in addressing this and Principle 8, management should focus on maintaining the natural processes, which drive those changes.
- This focus on processes requires a management approach that is flexible and adaptive, both as a response to changing circumstances and to take account of new knowledge and understanding. Adaptive management should generate new knowledge and reduce uncertainties, thereby allowing the manager to anticipate and cater for change.
- Ecosystem management must therefore involve a learning process that will help to adapt methods and practices to improve the ways in which these systems are being managed and monitored. Flexibility is also needed in policy-making and implementation. Long-term, inflexible decisions are likely to be ineffective or detrimental.

- of habitats, as it can facilitate taking early actions in response to change.
- 9.4 Monitoring systems, both socio-economic and ecological, are an integral part of adaptive management, and should not be developed in isolation from the goals and objectives of management activities.
- 9.5 Adaptive management must identify and take account of risks and uncertainties.
- 9.6 Where changes occur across national borders, the scale of adaptive management may need to be adjusted.
- 9.7 While ecosystems are inherently dynamic and resilient, special adaptation and mitigation measures are needed for human-induced problems such as climate change that may push ecosystems beyond the limits of natural variation. Capacity-building efforts are needed to address highly vulnerable areas such as small island states and coastal areas.
- 9.8 Capacity-building efforts are needed to address highly vulnerable areas such as small island states and coastal areas.
- 9.9 Traditional knowledge and practice should be used to enable better detection and understanding of ecosystem change, and to develop appropriate adaptation measures.
- 9.10 Adaptive management should recognize the resilient capacity of ecosystems in response to natural disturbances, and should be aimed at maintaining or restoring this capacity so as to reduce the risk of adverse social and economic consequences of natural variability in ecosystems.
- 9.11 Awareness-raising measures are needed to enhance public knowledge that ecosystem change is a natural phenomenon, and to build support and capacity for adaptive management.

**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

**Annotations to the rationale:**

*Biological resources play a role in providing the ecosystem goods and services on which humans ultimately depend. In this regard it should be noted that:*

- The ecosystem approach is designed to support the conservation of biodiversity, the sustainable use of its components, and the equitable sharing of benefits derived from the use of biodiversity.
- Sustainable use and management depends on also achieving conservation

**Implementation guidelines**

- 10.1 Develop integrated natural resource management systems and practices to ensure the appropriate balance between, and integration of, the conservation and use of biological diversity, taking into account long- and short-term, direct and indirect, benefits of protection and sustainable use as well as management scale.

- *objectives.*
- *Management for conservation and sustainable use are not inherently incompatible, and can be integrated.*
- *Integration can be achieved at various scales and in various ways including both spatial and temporal separation across the landscape as well as through integration within a site.*

10.2 Develop policy, legal, institutional and economic measures that enable the appropriate balance and integration of conservation and use of ecosystems components to be determined.

10.3 Promote participatory integrated planning, ensuring that the full range of possible values and use options are considered and evaluated.

10.4 Seek innovative mechanisms and develop suitable instruments for achieving balance appropriate to the particular problem and local circumstances.

10.5 Manage areas and landscapes in a way that optimises delivery of ecosystem goods and services to meet human requirements, conservation management and environmental quality.

10.6 Determine and define sustainable use objectives that can be used to guide policy, management, and planning, with broad stakeholder participation.

Identify solutions which relieve sectoral pressure on existing resources

**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.

#### **Annotations to the rationale:**

*Ecosystems can be viewed at various scales and from different perspectives, each yielding unique information and insights. Good management should therefore consider all relevant information. In this regard it should be noted that:*

- *The ecosystem approach is designed to accommodate a range of values and associated goals, and the information and perspectives of the communities that hold those values are therefore important in designing and implementing management.*
- *There is no single level of organisation at which one can understand and optimize management of ecosystem functioning. Different information sources will address issues at different levels, providing complementary perspectives to support integrated management.*
- *Good management therefore depends on maximising the information inputs, carefully assessing their accuracy and relevance, and integrating the information into decision-making and management.*
- *The issue of developing new understanding and information (research etc) is missing.*

#### **Implementation guidelines**

11.1 Relevant information should be shared with other stakeholders and actors and technical and scientific information be made available in an accessible way (indigenous and local knowledge should be treated with full respect of Article 8(j) and further decisions of the CBD).

11.2 Assumptions behind proposed management decisions should be made explicit based on the best available expertise, explicitly regard scenarios of future change and include the knowledge and views of stakeholders.

11.3 Appropriate mechanisms should be developed to document and make more widely available the information from all relevant disciplines (including natural and social sciences) and from relevant knowledge systems, particularly those based on local and traditional practices. This guideline should be implemented consistent with any decision to be taken under Article 8(j) of the CBD.

- 11.4 The implications for ecosystem management of different "world views" based on different knowledge systems should be evaluated.

**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.

**Annotations to the rationale:**

*The complexity of ecosystem management for sustained use and conservation requires integrating the activities and actions of many different stakeholders. In this regard it should be noted that:*

- *The activities of all sectors affect biological diversity, and can contribute to, or detract from, the achievement of the objectives of the Convention.*
- *The management of biodiversity, because of its complexity, and the significance of human impacts, requires a wide range of scientific and management skills, including those located in sectors that have not traditionally been involved in biodiversity conservation or management.*

*For these reasons the ecosystem approach should provide a framework for fostering greater involvement of all relevant stakeholders and technical expertise in planning and carrying out coordinated activities, sharing management resources, or simply exchanging information.*

**Implementation guidelines**

- 12.1 The integrated management of land, water and living resources requires increased communication and cooperation, (i) between sectors, (ii) at various levels of government (national, provincial, local), and (iii) among governments, civil society and private sector stakeholders. Increased communication among international and regional organisations also.
- 12.2 Further incorporation of the ecosystem approach as an integral part of planning in, among others, the agriculture, fisheries, forestry and other natural resources management sectors potentially affecting biodiversity and ecosystem functioning, should be encouraged, following the example, for instance, of the Code of Conduct for Responsible Fisheries, Sustainable Forest Management or others. Sectors other than the primary production sectors may also have major effects but are often less recognized in this respect.. These include sectors such as the judicial sector, which affects governance, as well as those such as energy and transport, which are managing or affecting resources either directly or indirectly.
- 12.3 Procedures and mechanisms should be established to ensure effective participation of all relevant stakeholders and actors during the consultation processes, decision making on management goals and actions, and, where appropriate, in implementing the ecosystem approach.
- 12.4 The effective implementation of the ecosystem approach may require involving multidisciplinary professional and scientific expertise, including such disciplines as economic, social and natural sciences.
- 12.5 When assessing the costs and benefits of conserving, maintaining, using and restoring ecosystems, the interests of all relevant sectors should be taken into account for equitable sharing of the benefits according to national law.

*Annex II***CONSIDERATION OF THE RELATIONSHIP BETWEEN SUSTAINABLE FOREST MANAGEMENT AND ECOSYSTEM APPROACH, AND REVIEW OF, AND DEVELOPMENT OF STRATEGIES FOR, THE INTEGRATION OF THE ECOSYSTEM APPROACH INTO THE PROGRAMMES OF WORK OF THE CONVENTION*****A. Sustainable forest management******1. Conceptual basis of the ecosystem approach in relation to sustainable forest management***

1. In 1992, the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forest of the United Nations Conference on Environment and Development (UNCED), also referred to as “Forest Principles”, defined a new paradigm for forest management, through a set of 15 principles in support to the overall objective of contributing to the management, conservation and sustainable development of forests and their multiple functions and uses. In this regard, the concept of sustainable forest management (SFM) anticipated the ecosystem approach, both of which are based on the tenet of sustainability. SFM incorporates the following key sustainability concepts: (i) stewardship; (ii) enabling environment; (iii) continuous flow of goods and services without undermining the resource base; (iv) maintenance of ecosystem functioning and biodiversity; (v) maintenance of economic, social, and cultural functions; (vi) benefit-sharing; and (vii) stakeholder participation in decision-making.

2. SFM can be considered as a means of applying the ecosystem approach to forests. Although the concept of SFM and the ecosystem approach are not identical, the two are similar in many respects. Both need to be applied as an integrated whole. Both are also rapidly evolving. Both have a non-legally binding nature, allowing for flexibility and experimentation. SFM and the ecosystem approach are overarching frameworks--both with due consideration to societal, ecological, and governance issues--although the former has undergone substantial refinement over the last decade, being primarily an outcome-based approach. The ecosystem approach is still in need of further elaboration to be translated into good operational practice in a particular situation. As far as challenges are concerned, both SFM and the ecosystem approach need to deal with complex issues such as law enforcement, land tenure rights, and the rights of indigenous and local communities. In this regard, implementation of both approaches requires political will, including that of institutions and communities.

3. The broad overlap between the concepts of SFM and the ecosystem approach is encouraging, but there are yet significant opportunities for mutual learning. Lessons learned should flow both ways. Country-level meetings to examine the relationship between SFM and the ecosystem approach would be useful, and should be commended to Parties to the Convention. These meetings should emphasize mutual learning opportunities.

4. As stated above, SFM is relatively more mature than the ecosystem approach in the sense of being more refined from an operational standpoint; thus it can feed on some aspects of the ecosystem approach to this end. Specifically, there is a clear need for the ecosystem approach to adopt processes that are based upon clear statements of visions, objectives, and goals for defined regions or issues, thereby becoming more outcome-oriented. Conceptual development of the ecosystem approach to date has emphasized a description of the content of the principles. Moving from a content-driven approach to an outcome-driven approach would be beneficial. Tools and approaches developed to implement SFM, which are discussed below, may be useful in other productive sectors as they explore ways to apply the ecosystem approach.

2. *Proposals for integration of the ecosystem approach and sustainable forest management*

5. Even though the ecosystem approach and sustainable forest management are broadly overlapping concepts, more could be done to ensure their integration. Sustainable forest management could gain insights from the ecosystem approach concepts as **cross-sectoral integration** is largely missing from SFM, reflecting restricted legal mandates mostly within forest sector institutions. Mechanisms for inter-sectoral collaboration could be strengthened within SFM. Agro-forestry integrates the forest and agriculture sectors but other linkages between the forest sector and the agriculture sector (and other sectors such as water management, transport, and conservation) need to be strengthened.

6. Although there is no pre-defined scale, the ecosystem approach can be applicable over large areas (landscape level), while SFM has historically emphasized forest management-unit levels of work at typically small spatial scales. Although the Forest Principles do not indicate that forest management should be integrated with management of adjacent areas, and some larger-scale applications (e.g. landscape restoration initiatives and model forests) have been developed within the last decade, greater emphasis could be placed on SFM within a broader spatial context, including **protected areas**, taking into consideration **conservation issues** in general, and developing stronger links to adjacent land uses and/or complementary approaches, such as extraction of non-timber forest resources, agriculture, watershed management, and ecological restoration.

7. There are areas where further conceptual development is needed in both SFM and the ecosystem approach. Both approaches, for example, should explicitly incorporate a **principle of sustainability**. The inter-generational obligation to sustain the provision of ecosystem goods and services to future generations should be clearly stated. Another area warranting further work is to incorporate issues, in both SFM and the ecosystem approach, of **consideration of risks and threats**. Global climate change creates risks and uncertainties for all sectors involved in applying the ecosystem approach. Concerns in the forest sector include insecure land tenure, increased forest fire incidence, and the spread of forest pests and diseases into higher latitudes.

8. As stated in the previous section, there is a need for the ecosystem approach to adopt a more **outcome-based approach**. As such, lessons learned from implementation of SFM through the application of criteria and indicators would be particularly beneficial. In addition, the experiences of applying the ecosystem approach through Global Environmental Facility projects should be taken into account.

9. In general, **tools and approaches** developed to implement SFM may be useful in other productive sectors as they explore ways to implement the ecosystem approach. The processes of developing and using criteria and indicators for sustainable forest management (including local-level indicators), designing and setting up model forests and demonstration forests, and drawing up national forest programs, action-oriented forest management plans, environmental management systems, and codes of conduct and practice, are all tools with broader potential relevance. For example, codes of practice for sustainable agricultural systems are not as advanced as for SFM. Approaches and tools developed for community forestry and social forestry to achieve broader stakeholder engagement, also have considerable potential for application in other sectors.

10. In particular, the use of **criteria and indicators** is considered a key tool for implementing and monitoring SFM, and the approach is being applied both nationally and at the forest management unit level. Criteria and indicators can be used for setting goals, assessing management outcomes and policy effectiveness, orienting forest certification systems, and for communicating progress to policy makers. Although nine regional and international processes to develop and implement criteria and indicators for sustainable forest management have largely developed independently, to date, 149 countries, encompassing 95% of the world's forests, are in the process of applying the criteria and indicators approach. Criteria and indicators for sustainable forest management represent a detailed expression of the

elements of SFM when taken as a integrated whole, and bear many points of similarity to the ecosystem approach. Criteria and indicators can be adapted towards on-the-ground action, as illustrated by the development of local-level indicators applicable at the forest management unit level by ITTO.

11. Local-level indicator work is one of the most interesting developments in the Criteria and Indicators approach. This work helps engage stakeholders in developing a longer-term vision and objectives for defined management areas, generating indicators that are meaningful to local needs. Their goal is to provide useful feedback to management, rather than to fulfil national monitoring and reporting requirements. Monitoring systems that can provide on-the-ground feedback and verify sustainability are essential for implementing adaptive management, a central concept within the ecosystem approach. These monitoring systems support the management-feedback process and allow it to evolve through time. **model forests and demonstration forests** (such as the work undertaken by ITTO) are providing further valuable opportunities to test adaptive management concepts and to promote their wider application.

12. While existing efforts in SFM/criteria and indicators are currently focused on the national level and the forest-management unit level, some recent efforts (such as work undertaken by IUCN) are focusing at the landscape level. The development of criteria and indicators for the landscape level should be further pursued. In this context, it is worth noting that restoration actions are starting to be undertaken at the landscape level, and that the ITTO Guidelines for the Restoration, Management and Rehabilitation of Degraded Secondary Tropical Forests have been developed for guiding policy makers on forest restoration at this spatial scale. The assessment through criteria and indicators tools could be used to determine flows of specific ecosystem services (e.g. carbon capture in plantations).

13. In this regard, the potential for application of forest criteria and indicators to the ecosystem approach is high, particularly in regions where forests are an integral part of the resource base being used. In a recent effort at summarizing the state of knowledge of the contribution of criteria and indicators for sustainable forest management, seven thematic areas were identified in which the development of criteria and indicators can suit specific management needs; these areas can easily be applied to many principles of the ecosystem approach. <sup>13/</sup>

14. **Forest certification** is another rapidly evolving approach that involves the use of criteria and indicators as primary tools. Globally, about 120 million hectares of forest have been certified. Certification is more limited in scope than SFM as it tends to focus on production forests only, to the exclusion of protected areas and landscape-level considerations as mentioned earlier. However, some certified forests currently exist in protected areas, and some certification schemes require, in turn, that a proportion of the managed forest be set aside for protection. Therefore the potential of forest certification to link with protected areas is high. <sup>14/</sup> In this context, forest certification programmes could benefit from moving in the direction of the ecosystem approach being broader in scope.

15. Nevertheless, certification systems have found limited application in some developing countries, notably in the tropics, where enabling conditions to implement these systems are generally lacking. There are various barriers to tropical forest certification, such as limited institutional and technical capacity, and poor development of markets for certified wood. Efforts to overcome these barriers could be a priority for the ecosystem approach. ITTO's efforts to develop a phased approach to tropical forest certification should be noted in this context.

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<sup>13/</sup> International Conference on the Contribution of criteria and indicators for sustainable forest management: the way forward. Guatemala City, 3-7 February 2003. The common thematic areas are: (1) extent of forest resources; (2) biological diversity; (3) forest health and vitality; (4) productive functions of forest resources; (5) protective functions of forest resources; (6) socio-economic functions; (7) legal, policy and institutional framework.

<sup>14/</sup> Certification of good forest management and its relationship to protected areas. IUCN forest case-study number 3. April 2003.

16. In addition, and of direct relevance for the integration of the ecosystem approach with SFM, ITTO has also developed **policy guidelines** for sustainable forest management. The guidelines contain a set of principles and recommended actions and relate to sustainable natural and planted tropical forests; conservation of biological diversity in tropical production forests; fire management in tropical forests; and restoration, management and rehabilitation of degraded secondary tropical forests. ITTO has also been promoting demonstration sites and demonstration watersheds.

17. If SFM were to explicitly examine tools and approaches that could be applied to other sectors - such as criteria and indicators, certification, and Model Forests - it would promote cross-fertilization, and help strengthen cross-sectoral integration. Developing institutional mechanisms to get people from different sectors around the table on an ongoing basis is a challenge in all countries. In addition to wider dissemination of useful tools, cross-sectoral meetings on SFM and the ecosystem approach would help demystify concepts and support mutual recognition, allowing people to use their own vocabulary.

18. The FAO is actively developing tools relevant to implementing SFM and the ecosystem approach. The FAO and World Bank have a support programme for facilitating stakeholder participation in the development of national forest programmes. Increased knowledge sharing is a major focus of FAO's efforts. The FAO Model Code of Forest Harvesting Practices has led to development of regional codes and country codes. The non-legally binding nature of these codes is a key to wider acceptance. Codes for integrated pest management, fire management, and integrated watershed management should also be noted. In addition, the recent FAO initiative, "In Search of Excellence in Forest Management", with its call for nominations of well-managed forests, has generated an excellent response. Multiple use, stakeholder participation, good information and monitoring systems, and good governance are recurring themes in well-managed forests, and they are as well key issues for the ecosystem approach.

19. In summary, in order to achieve greater harmonization of the SFM and ecosystem approach concepts, there is a need for SFM to strengthen cross-sectoral integration, which can be undertaken at least in part through application of SFM tools into other sectors. Developing and implementing biodiversity indicators would also help strengthen the contribution of SFM to biodiversity conservation. The development of criteria and indicators as well as certification programmes within SFM at the landscape level should also be pursued.

20. The ecosystem approach, should, in turn, consider lessons learned from application of SFM tools and approaches, such as criteria and indicators, certification systems, and model and demonstration forests in its effort to move towards an outcome-oriented approach. In addition, both approaches should explicitly incorporate the principle of sustainability.

***B. Integration of ecosystem approach into sectors and biomes  
corresponding to the thematic programmes of work of the  
Convention***

*1. Introduction*

21. There has been considerable progress in the development of sector-specific approaches incorporating many elements of the ecosystem approach. In particular, relevant tools have been developed in forestry, fisheries management, and watershed management - sectors associated with the Convention's programmes of work on forest biological diversity, marine and coastal areas, and inland water ecosystems, respectively. These sectors have recognized principles that are consistent with the ecosystem approach, and are moving to develop goal- or target-oriented approaches that include stakeholder participation, adaptive management, and monitoring/feedback systems. These sectors also deal with resources that tend to be under communal or public management rather than private management. This may help facilitate the development and implementation of sector-specific tools. The

progress to date should be acknowledged, and further elaboration of the ecosystem approach in individual sectors should be encouraged.

## 2. *Marine and coastal biological diversity*

22. The 1995 Code of Conduct for Responsible Fisheries includes principles that anticipate many of those in the ecosystem approach. In addition, there has been a movement towards the ecosystem approach in marine fisheries. The World Summit on Sustainable Development referred to the need to incorporate the ecosystem approach in responsible fisheries management, setting a target of 2010 for its achievement. The 2001 Reykjavik Declaration called for “guidelines for best practices with regard to introducing ecosystem considerations into fisheries management”. This led FAO in 2003 to update and revise its 1995 Code in the form of a new manual called “Fisheries management: the ecosystem approach to fisheries.” The World Wide Fund for Nature (WWF) has also developed a guide to ecosystem-based management for fisheries, and helped launch an effort to develop a certification program for marine fisheries under the Marine Stewardship Council. The Global Environment Facility (GEF) has provided financial support to 15 Large Marine Ecosystem (LME) projects involving more than 100 countries around the world. The LME projects build on an ecosystem approach in developing capacity and infrastructure for integrated management of marine and coastal environment and resources. Marine and coastal protected areas (MCPAs) are another significant cross-cutting approach in the context of marine and coastal areas. A CBD ad-hoc technical expert group prepared detailed guidance, in line with the ecosystem approach, on this topic that was discussed at the eighth meeting of SBSTTA (recommendation VIII/3). This guidance reflects the spirit of the ecosystem approach, and is available in document UNEP/CBD/SBSTTA/8/INF/11. Current thinking emphasizes a need to combine integrated marine and coastal area management (IMCAM) with a core network of highly protected areas, which act as baselines and an insurance policy. SBSTTA accepted this notion at its eight meeting, while indicating that the balance between highly protected zones and other areas where extractive uses are allowed is a choice for individual countries. The concept of IMCAM covers both marine areas and coastal portions of the land. These approaches are area-based, and are explained by detailed sets of guidelines such as those developed by Ramsar and FAO, and those under development within the framework of the Convention on Biological Diversity. UNEP is trying to bring together ocean management and river basin management in the project on integrated watershed and coastal area management (IWCAM) in small island developing States of the Caribbean.

## 3. *Inland water ecosystems biological diversity*

23. The concepts of integrated watershed management and river basin management present multidisciplinary approaches to the management of biophysical, social, and economic issues affecting water resources and their uses, and as such are consistent with the ecosystem approach. The River Basin Initiative operates under the framework of the joint work plan between the Convention on Biological Diversity and the Ramsar Convention, to support implementation of convention decisions related to better management of inland water ecosystems and associated biodiversity, water resources and wetlands. The Ramsar Convention, as the lead partner of the Convention on Biological Diversity in the implementation of activities under the Convention on inland water ecosystems, has developed a tool kit that includes practical guidance for integrated planning and management of river basins and coastal zones. In addition, the Ramsar Convention has developed guidelines for Global Action on Peatlands, and for “allocation and management of water for maintaining the ecological functions of wetlands”. These guidelines make connections between ecological functions, hydrology, economic demands and institutional responses.

## 4. *Agricultural biological diversity*

24. The programme of work on agricultural biodiversity recognizes the ecosystem approach and addresses many of the twelve principles individually. However, there is a potential deficiency in that the agricultural biodiversity programme of work does not apply the ecosystem approach in an integrated way.

Furthermore, there has been less progress in development of relevant tools within the agricultural sector than in other sectors. This may partly reflect the fact that agriculture is practiced largely on lands under private ownership. Participants at the expert meeting suggested that the issue of integrating the ecosystem approach within the agricultural sector be addressed in a comprehensive manner the next time that the programme of work in agricultural biodiversity is reviewed. Consideration might also be given to developing an addendum to the existing programme of work on use of the ecosystem approach.

25. Examples of initiatives and tools include efforts by FAO to codify “good agricultural practices”, and development of a manual on integrated production and protection (IPP) crop management, with specific IPP guidelines for various crops. An information document prepared for the fifth meeting of the Conference of the Parties to the Convention on Biological Diversity entitled “The ecosystem approach: toward its application to agricultural biodiversity” (UNEP/CBD/COP/5/INF/11) discussed approaches or tools that can contribute to ecosystem approach objectives, with a focus on integrated pest management and farmer field schools. An integrated natural resource management (INRM) approach has been adopted throughout the Consultative Group on International Agricultural Research (CGIAR) system. INRM has been conceptually defined as “the responsible and broad-based management of the land, water, forest and biological resource base—including genes—needed to sustain agricultural productivity and avert degradation of potential productivity.” Research and applications development are under way related to adaptive management, multiple scales and stakeholders, and measurable outcomes. Certification schemes, such as those for organic agriculture, are evolving in directions consistent with the ecosystem approach.

#### 5. *Dry and sub-humid lands biological diversity*

26. The programme of work on dry and sub-humid lands explicitly addresses the twelve principles of the ecosystem approach in an integrated way. An important consideration is the interaction between the Convention on Biological Diversity and the Convention to Combat Desertification (CCD). The CCD does not use the term “ecosystem approach”, but embraces many of the principles, especially participatory aspects. There may be opportunities to bring ecosystem approach concepts into certain CCD-specific initiatives such as those in drought resistance and early warning systems. Considerations related to developing alternative livelihoods, which are conceptually similar to the ecosystem approach, are central to work in drylands. Maintenance of a multi-biome perspective is also important, and therefore existing tools such as integrated river basin management are broadly applicable. A major reason for applying the ecosystem approach is to break down sectoral and institutional barriers.

### **19.5. Sustainable use (Article 10)**

*The following draft decision is taken from SBSTTA recommendation IX/7 on the draft Addis Ababa Principles and Guidelines for the Sustainable Use of Biological Diversity and on future work to be undertaken on this issue as proposed in the report on its ninth meeting (UNEP/CBD/COP/7/4).*

*The Conference of the Parties,*

*Underlining* that the proposals for the application of ways and means to remove or mitigate perverse incentives elaborated by the Workshop on Incentive Measures for the Conservation and Sustainable Use of Components of Biological Diversity, held in Montreal from 3 to 5 June 2003, provide further guidance on the implementation of principle 3 of the draft Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity,

*Stressing* that the ecosystem approach is the primary framework for action in the Convention on Biological Diversity and that there is a need to consider the interlinkages between the draft Addis Ababa Principles and Guidelines for the Sustainable Use of Biological Diversity and the ecosystem approach in the conservation and sustainable management of biodiversity,

*Noting* the ongoing work on impact assessment under the Convention on Biological Diversity,

1. *Adopts* the draft Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity, as contained in annex II to the present decision;

2. *Invites* Parties, other Governments and relevant organizations to initiate a process for the implementation of the Addis Ababa Principles and Guidelines at the national and local levels, in line with Article 6 and Article 10(a) of the Convention on Biological Diversity, taking into account existing frameworks for sustainable use, including the concept of sustainable forest management, e.g., by developing pilot projects, with a view to:

(a) Integrating and mainstreaming the Addis Ababa Principles and Guidelines into a range of measures including policies, programmes, national legislation and other regulations, sectoral and cross-sectoral plans and programmes addressing consumptive and non consumptive use of biodiversity, including plans and programmes addressing the removal or mitigation of perverse incentives that undermine the conservation and sustainable use of biodiversity, as deemed necessary by individual Parties; and

(b) Gathering and disseminating through the clearing-house mechanism and other means relevant information on experiences and lessons learned for the further improvement of the guidelines;

3. *Requests* the Executive Secretary to collect information and experiences on successful efforts made to implement Article 10 of the Convention and, as they are developed, success stories, best practices and lessons learned in the application of the Addis Ababa Principles and Guidelines, including information and experiences on how sustainable use of biodiversity can contribute to the achievement of the target of significantly reducing the rate of biodiversity loss by 2010 for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice prior to the ninth meeting of the Conference of the Parties;

4. *Requests* the Executive Secretary to undertake further work on issues pertaining to use of terms for sustainable use, adaptive management, monitoring and indicators building on the outcome of the Addis Ababa workshop, and, in particular and in line with Article 7 of the Convention, to further consolidate the work on the use of terms and on associated instruments based on sections I D and II D

together with appendix I of annex I to the report of the Addis Ababa Workshop (UNEP/CBD/SBSTTA/9/INF/8), for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice prior to the eighth meeting of the Conference of the Parties;

5. *Invites* Parties and Governments, in collaboration with local stakeholders, including indigenous and local communities, other relevant international organizations and agreements (e.g., IUCN, the Food and Agriculture Organization of the United Nations, the United Nations Educational, Scientific and Cultural Organization, the Convention on International Trade and Endangered Species of Wild Fauna and Flora and the Convention on the Conservation of Migratory Species of Wild Animals) to undertake further research including, through, *inter alia*, the compilation and analysis of case-studies on sustainable use consistent with practical principle 6:

(a) The impacts of sustainable use and non-sustainable use on livelihoods, and ecosystems goods and services;

(b) The role of indigenous and local communities, and women in the sustainable use of components of biodiversity;

(c) The relationship between resilience of ecosystems and the sustainable use of biodiversity;

(d) The terms used in the description of sustainable use, taking into account the aspirations of present and future generations in different regions and situations; building on the consensus reached in the Addis Ababa report (UNEP/CBD/SBSTTA/9/INF/8);

(e) The elaboration of management plans at time scales appropriate to the life history of species or populations;

(f) The applicability of the Addis Ababa Principles and Guidelines on the use of components of biological diversity that are subject to multiple jurisdictions, (e.g., a resource shared between different countries, or migratory species moving across national jurisdictions);

(g) The functional relationships between different components of biological diversity in the context of sustainable use;

(h) The socio-economic factors that influence pattern and intensity of use of biological resources, economic and social values of goods and services provided by ecosystems;

(i) Methods and mechanisms to determine sustainability of various intensities of use and participatory methods for determining appropriate levels of sustainable use;

(j) Ways of enhancing equitable distribution of benefits derived from the sustainable use of components of biodiversity, including genetic resources;

6. *Requests* the Executive Secretary to integrate the work on indicators for monitoring sustainable use referred to in section III of the note by the Executive Secretary on sustainable use (UNEP/CBD/SBSTTA/9/9) (see annex I to the present decision) also into the broader work undertaken pursuant to decision IV/7 on the “identification, monitoring, indicators and assessment”. In particular, social, economic and ecological indicators of external disturbances should be identified and developed. Existing indicator frameworks, monitoring systems and inventories of natural resources should be utilized, as appropriate;

7. *Invites* Parties and Governments, in collaboration with other relevant organizations, including the private sector, to develop and transfer technologies and provide financial support to ensure that the use of biological diversity is sustainable.

*Annex I***EXTRACT FROM THE NOTE BY THE EXECUTIVE SECRETARY ON SUSTAINABLE USE  
PREPARED FOR THE NINTH MEETING OF THE SUBSIDIARY BODY ON SCIENTIFIC,  
TECHNICAL AND TECHNOLOGICAL ADVICE (UNEP/CBD/SBSTTA/9/9)****I. INTRODUCTION**

1. In recent decades, biodiversity components have been used in a way leading to degradation of habitats, loss of species and erosion of genetic diversity, thus jeopardizing present and future livelihoods. Sustainable use of components of biodiversity, one of the three objectives of the Convention, is a key to achieving the broader goal of sustainable development and is a cross-cutting issue relevant to all thematic issues and areas addressed by the Convention and to all biological resources. It entails the application of methods and processes in the utilization of biodiversity to maintain its potential to meet current and future human needs and aspirations and to prevent its long-term decline.

2. Sustainable use of the components of biological diversity is defined in Article 2 of the Convention as 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. Provisions relating to sustainable use are given in Article 10, which, *inter alia*, requests Parties to “adopt measures relating to the use of biological diversity to avoid or minimize impacts on biological diversity”. In order to assist Governments in their implementation of Article 10, the Conference of the Parties at its fifth meeting requested the Executive Secretary “to assemble 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” (decision V/24).

3. In response to that decision, the Executive Secretary, in collaboration with the Governments of Mozambique, Viet Nam and Ecuador and with financial support from the Government of the Netherlands, convened three regional expert workshops in 2001-2002 designed to develop a set of practical principles and operational guidelines and associated enabling instruments for Parties, resource managers and other stakeholders.

4. The first workshop, held in Maputo in September 2001, focused on key elements relating to the sustainable use of dryland resources and wildlife utilization in Africa. <sup>15/</sup> The second workshop was held in Hanoi in January 2002 and addressed in particular the uses of forest biological diversity, including timber and non-wood forest products in Asia, with references to agricultural biological diversity. <sup>16/</sup> The third workshop, held in Salinas, Ecuador, in February 2002, focused on marine and freshwater fisheries uses particularly in Latin America and the Caribbean. <sup>17/</sup>

5. At its sixth meeting, the Conference of the Parties, in its decision VI/13, called for a fourth open-ended workshop in order to:

- (a) Synthesize the outcomes of the three workshops;
- (b) Integrate different views and regional differences; and

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<sup>15/</sup> The report of the Maputo workshop is contained in document UNEP/CBD/COP/6/INF/24/Add.1.

<sup>16/</sup> The report of the Hanoi workshop is contained in document UNEP/CBD/COP/6/INF/24/Add.2.

<sup>17/</sup> The report of the Salinas workshop is contained in document UNEP/CBD/COP/6/INF/24/Add.3.

(c) Develop a set of practical principles and operational guidelines for the sustainable use of biological diversity.

6. The fourth open-ended workshop was organized in Addis Ababa, Ethiopia, from 6 to 8 May 2003. The report of the meeting is available to the ninth meeting of SBSTTA as an information document (UNEP/CBD/SBSTTA/9/INF/8).

7. Information contained in the present note as well as the suggested recommendations are based on the outcome of the aforementioned fourth workshop.

## **II. OVERVIEW OF THE DRAFT ADDIS ABABA PRINCIPLES AND GUIDELINES FOR THE SUSTAINABLE USE OF BIODIVERSITY**

8. The draft Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity are annexed to the present note. A preamble to the principles gives a list of seven underlying conditions that should be taken into account in government and natural resources planning. This list is followed by the fourteen principles, which provide a framework for advising governments, resource managers and other stakeholders, including indigenous and local communities and the private sector, about how they can ensure that their uses of biodiversity components will not lead to the long-term decline of biological diversity. Each principle is followed by the rationale, a thorough explanation and exemplification of the motivation and meaning of the principle, and the operational guidelines, which provide functional advice on the implementation of the principle.

9. The principles are intended to be of general relevance, although not all principles will apply equally to all situations, nor will they apply with equal rigour. Their application will vary according to the biodiversity being used, the conditions under which they are being used, and the institutional and cultural context in which the use is taking place. The practical principles in most instances apply to both consumptive and non-consumptive uses of biodiversity components. They take into account requirements related to:

- (a) Policies, laws, and regulations;
- (b) Management of biological diversity;
- (c) Socio-economic conditions; and
- (d) Information, research and education.

## **III. ASSOCIATED INSTRUMENTS <sup>18/</sup>**

10. Implementation of the principles and guidelines for the sustainable use of biodiversity will depend on many inter-related factors including, but not limited to, existence of appropriate incentive measures, ability to manage and exchange information and sufficient capacity with which to implement sustainable management plans, and, the capacity to adapt to changing conditions based on monitoring and feedback. In particular, because in ecosystem management, circumstances change and thus uncertainties are inherent in all managed uses of components of biodiversity, adaptive management must be an essential part of any management for sustainable use. The successful application of adaptive management is dependent on monitoring changes in the indicators being used, which could lead to changes in an array

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<sup>18/</sup> Information contained in this section is based on information contained in the report of the Fourth Open-ended Workshop on the Sustainable Use of Biological Diversity (Addis Ababa, 6-8 May 2003 (UNEP/CBD/SBSTTA/9/INF/8).

of activities associated with the management system. The issues of adaptive management and monitoring and indicators for sustainable use are addressed below.

### **3.1. Adaptive management**

11. Sustainable use is not a fixed state, but rather the consequence of balancing an array of factors, which vary according to the context of the use. In addition, sustainability of uses cannot be expressed with certainty, but rather as a probability that may have to change if the conditions in which management is taking place change. In this context, adaptive management deals with the complex and dynamic nature of ecosystems and their uses and the absence of complete knowledge of their functioning, it is able to respond to uncertainties and it contains elements of “learning-by-doing” or research feedback. Achievement of sustainability is also dependent on institutional capacities to adapt to changing conditions based on monitoring and feedback. Given the uncertainties, sudden changes and different contexts in which the use of biodiversity is taking place, sustainable use entails the adaptive management of biological resources.

12. Briefly, adaptive management is considered the appropriate approach toward the management of biological resources because of its ability to deal with the uncertainty and natural variation, its iterative nature of monitoring biological resource through the management cycles, and the feedback/decision-making mechanisms to alter the management. Adaptive management can be applied at each of the recognized components of biological diversity, where the scale of management (and adaptive-management needs) is determined by the component being used.

### **3.2. Monitoring and indicators**

13. Monitoring is a key component of adaptive management and managers should be accountable and responsible for developing and implementing the monitoring programme. The indicators and benchmarks that form part of that monitoring programme should be agreed upon by all relevant stakeholders including Governments and scientists.

14. A series of criteria and characteristics should be taken into consideration in developing a monitoring system. For instance, monitoring should be bounded by spatial and temporal scales that are relevant to the potential impact, but should not ignore “downstream”, indirect side effects of management. There are also different levels at which consumptive and non-consumptive uses should be conducted. For instance, harvest efforts should be monitored, in order to determine changes in the yield per unit effort as an index of the impact of the management programme, taking into account improvements in technology and practice relating to the efficiency of harvesting.

15. Monitoring of both consumptive and non-consumptive use should be conducted at the same frequency and by the same agencies, although the combination of monitoring may result in a greater probability that use-related impacts will be detected and that monitoring systems will be maintained in the long term. Monitoring at multiple levels is particularly important in cases where limited information is available about the current status of the component of biological diversity that is being used, or to avoid bias resulting from information derived as the result of use (e.g., harvesting is most often targeted at specific components only). It is also important to consider impacts on a resource other than influence by direct management actions, such as illegal off-takes, and to use all other relevant sources of information to verify conclusions about the trends in resource status and recommendations concerning its management.

16. There is the need to identify/further develop indicators <sup>19/</sup> within the context of sustainable use in order to describe; status of a system, change in a system, trends in a system, combinations of the above. Desirable characteristics of indicators should also be identified.

17. Indicators should be developed at various scales. Some will be national in context; some will be management-area indicators. It is important for managers/planners to include in the monitoring system indicators relevant to their specific situation. Managers should be aware that there are many existing sources of information on indicators (e.g., the Food and Agriculture Organization of the United Nations (FAO), Agenda 21, the United Nations System Wide Earth Watch Indicators, the World Bank).

18. For each of the components of biological diversity a set of indicators to measure their decline should be finalized. In this biological context, indicators should be identified for the components of biological diversity that can be subject to use. The assessment of the sustainability of use on a particular component will largely depend on the scale and extent of use. Indicators of sustainability should be applied to the component of biological diversity that approximates the unit of management.

19. The indicators identified should be suitable to demonstrate the impact of use, and only refer to the biological status of each component of biological diversity, as they should be built to detect decline in the status of biodiversity components.

20. Economic indicators will be also essential in indicating status, change and trends of use of biological components of biodiversity in economic terms. Indicators identified should be used to assess sustainability of the use. For example, the degree to which biological resources are priced and reflect true value, being a condition for effective management, may serve as an economic indicator.

21. In addition, social indicators that reflect social values with respect to the sustainable use of biological components. The indicators identified should be suitable examples to demonstrate:

- (a) The incorporation of social values into the use of biological resources;
- (b) How unique needs of individuals and indigenous and local communities are considered in policy-making and management decisions; and
- (c) The extent to which the allocation of resources can be considered to be fair and equitable.

22. All cultures use aspects of biological diversity for the maintenance of their cultures. Using indicators to monitor sustainable use in a cultural context is important to understand the impact of the use upon cultures, and vice versa. Cultures need to be defined beyond indigenous groups; to include beliefs, customs, practices and social behaviour of all people. Some cultural indicators should therefore be identified.

## *Annex II*

### **DRAFT ADDIS ABABA PRINCIPLES AND GUIDELINES FOR THE SUSTAINABLE USE OF BIODIVERSITY**

1. The Addis Ababa Principles and Guidelines for the Sustainable use of Biodiversity consist of fourteen interdependent practical principles, operational guidelines and a few instruments for their implementation that govern the uses of components of biodiversity to ensure the sustainability of such uses. The principles provide a framework for advising Governments, resource managers and other

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<sup>19/</sup> See also the note by the Executive Secretary on designing national-level monitoring programmes and indicators (UNEP/CBD/SBSTTA/9/10).

stakeholders, including indigenous and local communities and the private sector, about how they can ensure that their use of biodiversity components will not lead to the long-term decline of biological diversity. The principles are intended to be of general relevance, although not all principles will apply equally to all situations, nor will they apply with equal rigour. Their application will vary according to the biodiversity being used, the conditions under which they are being used, and the institutional and cultural context in which the use is taking place.

2. Sustainable use is a valuable tool to promote conservation of biological diversity, since in many instances it provides incentives for conservation and restoration because of the social, cultural and economic benefits that people derive from that use. In turn, sustainable use cannot be achieved without effective conservation measures. In this context, and as recognized in the Plan of Implementation of the World Summit on Sustainable Development, sustainable use is an effective tool to combat poverty, and, consequently, to achieve sustainable development.

3. The practical principles in most instances apply to both consumptive and non-consumptive uses of biodiversity components. They take into account requirements related to: (i) policies, laws, and regulations; (ii) management of biological diversity; (iii) socio-economic conditions; and (iv) information, research and education.

4. It is a fundamental assumption that the application of the practical principles and operational guidelines is set within the context of the ecosystem approach (decision V/6 of the Conference of the Parties). For the practical principles, footnotes provide cross references to the relevant principle(s) of the ecosystem approach.

5. Progress towards sustainability will require the political will to bring about changes to create the necessary enabling environment at all levels of government and society. The operational guidelines are intended to provide functional advice on the implementation of the principles. These guidelines have been developed taking into account regional and thematic differences and best practices and lessons learned that have been documented in case-studies on the sustainable use of biological diversity in different biomes as well as existing codes of conduct.

6. The operationalization of the principles will require an enabling institutional, legal and administrative structure at all levels of government and society within each Party. Further, to be effective, policies and regulations that are adopted should ensure that the application of the principles is flexible and adaptable to different local realities and adjustable to specific ecosystems. In this context, seven underlying conditions should be taken into account as a framework for the correct implementation of the principles and guidelines, as listed in section A below.

#### *A. Underlying conditions for sustainable use*

7. In structuring a sustainable use programme and the attendant policies, laws and regulations to implement such a programme, there are a few underlying conditions that should be taken into account in government and natural resource management planning:

(a) It is possible to use biodiversity components in a manner in which ecological processes, species and genetic variability remain above thresholds needed for long-term viability, and thus all resource managers have the responsibility to ensure that use does not exceed these capacities. It is crucial that the biodiversity in ecosystems is maintained to ensure that those ecosystems are capable to sustain the ecological services on which both biodiversity and people depend;

(b) Ecosystems, ecological processes within them, species variability and genetic variation change over time whether or not they are used. Therefore, governments and resource managers should

take into account the need to accommodate change, including stochastic events that may adversely affect biodiversity and influence the sustainability of a use;

(c) In circumstances where the risk of converting natural landscapes to other purposes is high, encouraging sustainable use can provide incentives to maintain habitats and ecosystems, the species within them, and the genetic variability of the species. Also, for particular species, such as crocodiles, sustainable use has provided substantial incentives for conserving a dangerous animal that represents a threat to humans;

(d) The basic necessities of life, such as food, shelter, freshwater and clean air are produced either directly or indirectly from using biological diversity. In addition, biodiversity provides many direct benefits and ecosystem services necessary for life. In many countries, there is complete or substantial dependence on harvested plants and animals by millions of people, often among the poorest, for their livelihoods. Increasingly other uses such as pharmaceuticals for disease prevention and cure are becoming evident and are also met from using biological diversity. Finally, indigenous and local communities and their cultures often depend directly on the uses of biological diversity for their livelihoods. In all of these instances, governments should have adequate policies and capacities in place to ensure that such uses are sustainable;

(e) The supply of biological products and ecological services available for use is limited by intrinsic biological characteristics of both species and ecosystems, including productivity, resilience, and stability. Biological systems, which are dependent on cycling of finite resources, have limits on the goods they can provide and services they can render. Although certain limits can be extended to some degree through technological breakthroughs, there are still limits, and constraints, imposed by the availability and accessibility of endogenous and exogenous resources;

(f) To ameliorate any potential negative long-term effects of uses it is incumbent on all resource users, to apply precaution in their management decisions and to opt for sustainable use management strategies and policies that favour uses that provide increased sustainable benefits while not adversely affecting biodiversity. Likewise, governments should be certain that licensed or authorized sustainable uses of biological diversity are taking such precautions in their management;

(g) In considering individual guidelines provided below, it is necessary to refer to and apply the provisions of Article 8(j), Article 10(c) and other related provisions and their development in relevant decisions of the Conference of the Parties in all matters that relate to indigenous and local communities.

***B. Practical principles, rationale and operational guidelines for the sustainable use of biodiversity***

8. Sustainability of use of biodiversity components will be enhanced if the following practical principles and related operational guidelines are applied:

***Practical principle 1: Supportive policies, laws, and institutions are in place at all levels of governance and there are effective linkages between these levels.***

*Rationale:* There is need to have congruence in policies and laws at all levels of governance associated with a particular use. For example, when an international agreement adopts a policy regarding use of biodiversity, national <sup>20/</sup> laws must be compatible if sustainability is to be enhanced. There

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<sup>20/</sup> It is recognized that, throughout the principles, rationale and operational guidelines, the term “national” may mean either national or, as appropriate in some countries, subnational.

must be clear and effective linkages between different jurisdictional levels to enable a “pathway” to be developed which allows timely and effective response to unsustainable use and allows sustainable use of a resource to proceed from collection or harvest through to final use without unnecessary impediment. In most cases the primary means for achieving congruence between local and international levels of governance should be through national governments.

### ***Operational guidelines***

- Consider local customs and traditions (and customary law where recognized) when drafting new legislation and regulations;
- Identify existing and develop new supportive incentives measures, policies, laws and institutions, as required, within the jurisdiction in which a use will take place, also taking into account Articles 8(j) and 10(c), as appropriate;
- Identify any overlaps, omissions and contradictions in existing laws and policies and initiate concrete actions to resolve them;
- Strengthen and/or create cooperative and supportive linkages between all levels of governance in order to avoid duplication of efforts or inconsistencies.

***Practical principle 2: Recognizing the need for a governing framework consistent with international <sup>21/</sup> national laws, local users of biodiversity components should be sufficiently empowered and supported by rights to be responsible and accountable for use of the resources concerned. <sup>22/</sup>***

### ***Rationale:***

Uncontrolled access to biodiversity components often leads to over-utilization as people try to maximize their personal benefits from the resource while it is available. Resources for which individuals or communities have use, non-use, or transfer rights are usually used more responsibly because they no longer need to maximise benefits before someone else removes the resources. Therefore sustainability is generally enhanced if Governments recognize and respect the “rights” or “stewardship” authority, responsibility and accountability to the people who use and manage the resource, which may include indigenous and local communities, private landowners, conservation organizations and the business sector. Moreover, to reinforce local rights or stewardship of biological diversity and responsibility for its conservation, resource users should participate in making decisions about the resource use and have the authority to carry out any actions arising from those decisions.

### ***Operational guidelines***

- Where possible adopt means that aim toward delegating rights, responsibility, and accountability to those who use and/or manage biological resources;

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<sup>21/</sup> Where consistency with international law is referred to this recognizes: a) that there are cases where a country will not be a party to a specific international convention and accordingly that law will not apply directly to them; and b) that from time to time countries are not able to achieve full compliance with the conventions to which they are a party and may need assistance.

<sup>22/</sup> See principle 2 of the ecosystem approach.

- Review existing regulations to see if they can be used for delegating rights; amend regulations where needed and possible; and/or draft new regulations where needed. Throughout local customs and traditions (including customary law where recognized) should be considered;
- Refer to the programme of work related to the implementation of Article 8(j) with regard to indigenous and local community issues (decision V/16), implement and integrate tasks relevant for the sustainable use of biodiversity components, in particular element 3, tasks 6, 13 and 14;
- Provide training and extension services to enhance the capacity of people to enter into effective decision-making arrangements as well as in implementation of sustainable use methods;
- Protect and encourage customary use of biological resources that is sustainable, in accordance with traditional and cultural practices (Article 10(c)).

***Practical principle 3: International, national policies, laws and regulations that distort markets which contribute to habitat degradation or otherwise generate perverse incentives that undermine conservation and sustainable use of biodiversity, should be identified and removed or mitigated. 23/***

*Rationale:* Some policies or practices induce unsustainable behaviours that reduce biodiversity, often as unanticipated side effects as they were initially designed to attain other objectives. For example, some policies that encourage domestic over production often generate perverse incentives that undermine the conservation and sustainable use of biological diversity. Eliminating subsidies that contribute to illegal, unreported and unregulated fishing and to over-capacity, as required by the WSSD Plan of Implementation in order to achieve sustainable fisheries, is a further instance of the recognition of the need to remove perverse incentives.

*Operational guidelines*

- Identify economic mechanisms, including incentive systems and subsidies at international, national levels that are having a negative impact on the potential sustainability of uses of biological diversity;
- Remove those systems leading to market distortions that result in unsustainable uses of biodiversity components;
- Avoid unnecessary and inadequate regulations of uses of biological diversity because they can increase costs, foreclose opportunities, and encourage unregulated uses thus decreasing the sustainability of the use.

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23/ See principle 4 of the ecosystem approach.

**Practical principle 4:** *Adaptive management should be practiced, based on:*

- (a) Science and traditional and local knowledge;*
- (b) Iterative, timely and transparent feedback derived from monitoring the use, environmental, socio-economic impacts, and the status of the resource being used; and*
- (c) Adjusting management based on timely feedback from the monitoring procedures. 24/*

*Rationale:*

Biological systems and the economic and social factors that can affect the sustainability of use of biological diversity are highly variable. It is not possible to have knowledge of all aspects of such systems before a use of biological diversity begins. Therefore, it is necessary for the management to monitor the effects of that use and allow adjustment of the use as appropriate, including modification, and if necessary suspension of unsustainable practices. In this context, it is preferable to use all sources of information about a resource when deciding how it can be used. In many societies traditional and local knowledge has led to much use of biological diversity being sustainable over long time-periods without detriment to the environment or the resource. Incorporation of such knowledge into modern use systems can do much to avoid inappropriate use of a resource.

*Operational guidelines*

- Ensure that for particular uses adaptive management schemes are in place;
- Require adaptive management plans to incorporate systems to generate sustainable revenue, where the benefits go to local stakeholders including indigenous and local communities, to support successful implementation;
- Provide extension assistance in setting up and maintaining monitoring and feedback systems;
- Include clear descriptions of their adaptive management system, which includes means to assess uncertainties;
- Respond quickly to unsustainable practices;
- Design monitoring system on a temporal scale sufficient to ensure that information about the status of the resource and ecosystem is available to inform management decisions to ensure that the resource is conserved;
- When using traditional and local knowledge, ensure that approval of the holder of that knowledge has been obtained.

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24/ See principles 9 and 11 of the ecosystem approach.

**Practical principle 5:** *Sustainable use management goals and practices should avoid or minimize adverse impacts on ecosystem services, structure and functions as well as other components of ecosystems. 25/*

*Rationale:* For use of any resource there is a need to take into account the functions that resource may fulfil within the ecosystem in which it occurs, and that use must not adversely affect ecosystem functions. For example, clear felling in a watershed could lead to erosion of soil and impairment of the water filtration function of the ecosystem. Avoidance of this situation would involve setting conservative cutting quotas with appropriate harvesting techniques and monitoring the effects of the harvest as it occurs. As another example, the shrimping industry has developed nets that can separate out juveniles and by-catch and also reduce negative effects on benthic and other associated communities.

*Operational guidelines*

- Ensure management practices do not impair the capacity of ecosystems to deliver goods and services that may be needed some distance from the site of use. For example, selective cutting of timber in a watershed would help maintain the ecosystem's capacity to prevent soil erosion and provide clean water;
- Ensure that consumptive and non-consumptive use does not impair the long-term sustainability of that use by negatively impacting the ecosystem on which the use depends, e.g., when a tourism operation destroys a coral reef on which it was based;
- Apply a precautionary approach in management decisions in accordance with principle 15 of the Rio Declaration on Environment and Development;
- Identify successful experiences of management of biodiversity components in other countries in order to adapt and incorporate this knowledge in their efforts to resolve their own difficulties;
- Where possible consider the aggregate and cumulative impact of activities on the target species or ecosystem in management decisions related to that species or ecosystem;
- Where previous impacts have degraded and reduced biodiversity, support formulation and implementation of remedial action plans (Article 10(d)).
- Where applicable and appropriate, non-consumptive sustainable use strategies should be favored in the case of threatened species.

**Practical principle 6:** *Interdisciplinary research into all aspects of the use and conservation of biological diversity should be promoted and supported.*

*Rationale:* International conventions and national decisions that affect use should always apply the best information on which to base decisions and be aware of the local circumstances where a use is undertaken. In addition, there is need to ensure that research is supported into the biological and ecological requirements of the species to ensure that the use remains within the capacity of the species and ecosystem to sustain that use. Further, to enhance

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25/ See principles 3, 5 and 6 of the ecosystem approach.

incentives that promote sustainability, there would be value in investing in research to open up new economic opportunities for stakeholders.

#### *Operational guidelines*

- Ensure that the results of research inform and guide international, national policies and decisions;
- Invest in research into techniques and technologies of management of biodiversity components that promote sustainability in both consumptive and non-consumptive uses of biodiversity;
- Encourage active collaboration between scientific researchers and people with local and traditional knowledge;
- Encourage international support and technology transfer, relating to both consumptive and non-consumptive uses of biodiversity;
- Develop cooperation between researchers and biodiversity users (private or local communities), in particular, involve indigenous and local communities as research partners and use their expertise to assess management methods and technologies;
- Investigate and develop effective ways to improve environmental education and awareness, to encourage public participation and to stimulate the involvement of stakeholders in biodiversity management and sustainable use of resources;
- Investigate and develop means of ensuring rights of access and methods for helping to ensure that the benefits derived from using components of biodiversity are equitably shared;
- Make research results available in a form which decision makers, users, and other stakeholders can apply;
- Promote exchange programmes in scientific and technical areas.

***Practical principle 7: The spatial and temporal scale of management should be compatible with the ecological and socio-economic scales of the use and its impact. 26/***

*Rationale:* Management of sustainable use activities should be scaled to the ecological and socio-economic needs of the use. If, for example, fish are harvested from a lake, the owner of the lake should be in charge of, and accountable for, the management of the lake subject to national or, as appropriate, subnational policy and legislation. In case of transboundary resources, it is advisable that appropriate representation from those states participate in the management and decisions about the resources.

#### *Operational guidelines*

- Link responsibility and accountability to the spatial and temporal scale of use;
- Define the management objectives for the resource being used;
- Enable full public participation in preparation of management plans to best ensure ecological and socio-economic sustainability.

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26/ See principles 2 and 7 of the ecosystem approach.

**Practical principle 8:** *There should be arrangements for international cooperation where multinational decision-making and coordination are needed.*

*Rationale:* If a resource is shared between two or more countries then it is advisable to have a bilateral or multilateral agreement between those states to determine how the resource will be used and in what amounts. Absence of such agreements can lead to each state implementing separate management regimes which, when taken together, may mean that the resource is over-utilized.

*Operational guidelines*

- Make arrangements for international cooperation when the distribution of populations or communities/habitats being used span two or more nations;
- Promote multinational technical committees to prepare recommendations for the sustainable use of shared resources;
- Have bilateral or multilateral agreements between or among the States sharing the resource;
- Spell out the basis for taking decisions governing sustainable use of shared resources in such agreement;
- Establish mechanisms involving the collaborating states to ensure that sustainable use of shared resources does not negatively impact the ecosystem capacity and resilience.

**Practical principle 9:** *An interdisciplinary, participatory approach should be applied at the appropriate levels of management and governance related to the use.*

*Rationale:* Sustainability of use depends on biological parameters of the resources being utilized. However, it is recognized that social, cultural, political and economic factors are equally important. It is therefore necessary to take such factors into consideration and involve the stakeholders, including indigenous and local communities and the private sector, and the people experienced in these different fields, at all levels of the decision making process.

*Operational guidelines*

- Consider providing mechanisms that encourage interdisciplinary cooperation in management of biodiversity components;
- Set standards for resource management activities that promote interdisciplinary consultations;
- Facilitate communication and exchange of information between all levels of decision-making;
- Identify all relevant stakeholders and seek their participation in planning and executing of management activities;
- Take account of socio-economic, political, biological, ecological, institutional, religious and cultural factors that could influence the sustainability of the management;
- Seek guidance from local, traditional and technical specialists in designing the management plan;

- Provide adequate channels of negotiations so that potential conflicts arising from the participatory involvement of all people can be quickly and satisfactorily resolved.

***Practical principle 10: International, national policies should take into account:***

- (a) Current and potential values derived from the use of biological diversity;***
- (b) Intrinsic and other non-economic values of biological diversity and***
- (c) Market forces affecting the values and use.***

***Rationale:***

Recent work in calculating the potential costs of replacing natural systems with man-made alternatives has shown that such natural systems should be valued very highly. It follows that international and national policies that guide trade and development should compare the real value of natural systems against any intended replacement uses before such development is undertaken. For instance, mangroves have the function of fish-spawning and nursery sites, erosion and storm-surge alleviation and carbon sequestration. Coral reefs provide protection for juvenile fish and many species, as well as coastal zone protection.

***Operational guidelines***

- Promote economic valuation studies of the environmental services of natural ecosystems;
- Incorporate this information in policy and decision making processes, as well as educational applications;
- Consider this principle in relation to land use/habitat conversion tradeoffs. Recognize that market forces are not always sufficient to improve living conditions or increase sustainability in the use of components of biological diversity;
- Encourage governments to take into account biodiversity values in their national accounts;
- Encourage and facilitate capacity building for decision makers about concepts related to economic valuation of biodiversity.

***Practical principle 11: Users of biodiversity components should seek to minimize waste and adverse environmental impact and optimize benefits from uses.***

***Rationale:***

Users should seek to optimize management and to improve selectivity of extractive uses through environmentally friendly techniques, so that waste and environmental impacts are minimized, and socio-economic and ecological benefits from uses are optimized.

***Operational guidelines:***

- Eliminate perverse incentives and provide economic incentives for resource managers to invest in development and/or use of more environmentally friendly techniques, e.g., tax exemptions, funds

available for productive practices, lower loan interest rates, certification for accessing new markets;

- Establish technical cooperation mechanisms in order to guarantee the transfer of improved technologies to communities;
- Endeavour to have an independent review of harvests to ensure that greater efficiencies in harvest or other extractive uses do not have a deleterious impact on the status of the resource being used or its ecosystem;
- Identify inefficiencies and costs in current methods;
- Conduct research and development into improved methods;
- Promote or encourage establishment of agreed industry and third party quality standards of biodiversity component processing and management at the international and national levels;
- Promote more efficient and humane use of biodiversity components and reduce collateral damage to biodiversity.

***Practical principle 12: The needs of indigenous and local communities who live with and are affected by the use and conservation of biological diversity, along with their contributions to its conservation and sustainable use, should be reflected in the equitable distribution of the benefits from the use of those resources.***

*Rationale:* Local stakeholders, including indigenous and local communities, often shoulder significant costs or forgo benefits of potential use of biological diversity, in order to ensure or enhance benefits accruing to others. Many resources (e.g., timber, fisheries) are over-exploited because regulations are ignored and not enforced. When local people are involved as stakeholders such violations are generally reduced. Management regimes are enhanced when constructive programs that benefit local communities are implemented, such as capacity training that can provide income alternatives, or assistance in diversifying their management capacities.

*Operational guidelines:*

- Promote economic incentives that will guarantee additional benefits to the local stakeholders, including indigenous and local communities, who are involved in the management of any biodiversity components, e.g., job opportunities for local peoples, equal distribution of returns amongst locals and outside investors/co-management;
- Adopt policies and regulations that ensure that local stakeholders, including indigenous and local communities, who are engaged in the management of a resource for sustainable use receive an equitable share of any benefits derived from that use;
- Ensure that national policies and regulation for sustainable use recognize and account for non-monetary values of natural resources;
- Consider ways to bring uncontrolled use of biological resources into a legal and sustainable use framework, including promoting alternative non-consumptive uses of these resources;

- Ensure that an equitable share of the benefits remain with the local people in those cases where foreign investment is involved;
- Involve local stakeholders, including indigenous and local communities, in the management of any natural resource and provide those involved with equitable compensation for their efforts, taking into account monetary and non-monetary benefits;
- In the event that management dictates a reduction in harvest levels, to the extent practicable assistance should be provided for local stakeholders, including indigenous and local communities, who are directly dependent on the resource to have access to alternatives.

***Practical principle 13: The costs of management and conservation of biological diversity should be internalized within the area of management and reflected in the distribution of the benefits from the use. 27/***

*Rationale:* The management and conservation of natural resources incurs costs. If these costs are not adequately covered then management will decline and the amount and value of the natural resources may also decline. It is necessary to ensure that some of the benefits from use flow to the local natural resource management authorities so that essential management to sustain the resources is maintained. Such benefits may be direct, such as entrance fees from visitors to a national park paid directly to, and retained by, the park management authority or indirect, such as stumpage tax revenue from timber harvesting paid by loggers that flows through a national treasury to a local forest service. In some cases licence fees for fishing rights are paid directly to the management authority, or to the national treasury.

*Operational guidelines*

- Ensure that national policies do not provide subsidies that mask true costs of management;
- Ensure that harvest levels and quotas are set according to information provided by the monitoring system, not the economic needs of the management system;
- Provide guidelines for resource managers to calculate and report the real cost of management in their business plans;
- Create other alternative mechanisms to invest revenues from biodiversity management;
- Provide economic incentives for managers who have already internalized environmental costs, e.g., certification to access new markets, waiver or deferral of taxes in lieu of environmental investment, promotion of “green-labelling” for marketing.

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<sup>27/</sup> See the operational guidance for the application of the ecosystem approach (decision V/6, annex, section C, para. 11).

***Practical principle 14: Education and public awareness programmes on conservation and sustainable use should be implemented and more effective methods of communications should be developed between and among stakeholders and managers.***

*Rationale:* To ensure that people are aware of the connectivity between different parts of biological diversity, its relevance to human life, and the effects of uses it is advisable to provide means to engage people in education and awareness of the opportunities and constraints of sustainable use. It is also important to educate people on the relationship of sustainable use and the other two objectives of the Convention. An important way to achieve sustainable use of biological diversity would be to have in place effective means for communications between all stakeholders. Such communications will also facilitate availability of the best (and new) information about the resource.

*Operational guidelines*

- Plan education and public-awareness activities concerning: management, values of sustainable use, changing consumptive patterns and the value of biodiversity in the lives of people;
- Ensure that public-awareness programmes also inform and guide decision makers;
- Target all levels of the chain of production and consumption with such communications;
- Report lessons learned about sustainable use activities to the clearing-house mechanism of the Convention on Biological Diversity;
- Encourage and facilitate communication of lessons learned and best practices to other nations;
- Ensure that resource users report to government on their activities in a manner that facilitates broader communications;
- Increase awareness of the contributions of knowledge, practices and innovations of indigenous and local communities for the sustainable use of biological diversity.

### **19.6 Alien species that threaten ecosystems, habitats or species (Article 8 (h))**

*The following draft decision is based on paragraphs (a)-(i) SBSTTA recommendation IX/15, with paragraph 10 being an additional suggestion by the Executive Secretary. In addition, in paragraph (j) of the same recommendation, the SBSTTA recommended that the Conference of the Parties consider the need for sustainable financing for improved prevention, rapid response and management measures to address the threats of invasive alien species.*

#### *The Conference of the Parties*

1. *Welcomes* the collaboration between the Convention on Biological Diversity and other conventions and organizations, in particular the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat and the International Plant Protection Convention, in developing mechanisms to address the threats posed by invasive alien species;

2. *Welcomes* progress on the draft International Convention for the Control and Management of Ships' Ballast Water and Sediments under the International Maritime Organization, and recommends that Parties to the Convention on Biological Diversity and other Governments consider ratifying this Convention when it is adopted and opened for signature;

3. *Recognizes* the need to strengthen further institutional coordination among international organizations and *requests* the Executive Secretary to strengthen collaboration with other relevant partners, and in particular to:

(a) Promote fuller consideration of issues relating to invasive alien species in other international forums, including through the joint liaison group of the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification, and the Collaborative Partnership on Forests;

(b) Further collaborate with relevant organizations and initiatives including the Food and Agricultural Organization of the United Nations and the International Maritime Organization;

(c) Further collaborate with relevant conventions including the Convention on International Trade in Endangered Species (CITES);

(d) Support closer coordination between national focal points of relevant international instruments, regional institutions and international conventions and programmes;

(e) Develop a joint work plan with the secretariat of the International Plant Protection Convention;

(f) Establish closer linkages with the Office International des Epizooties;

(g) Explore options for closer collaboration with the International Civil Aviation Organization (ICAO) in the development of a preventive strategy for invasive alien species through civil-aviation pathways;

(h) Cooperate with relevant site-based conventions and other organizations to develop biome-specific practical guidance for site managers;

4. *Recognizing* the need to strengthen institutional coordination at international, regional and national levels on invasive alien species as a trade-related issue:

(a) *Invites* the World Trade Organization and its relevant bodies to give consideration to the risks coming from invasive alien species, in their deliberations;

(b) *Requests* the Executive Secretary to collaborate, whenever feasible and appropriate, with the Secretariat of the World Trade Organization in its training, capacity-building and information activities, with a view to raising awareness of the issues related to invasive alien species, and promoting enhanced cooperation on this issue;

(c) *Requests* the Executive Secretary to renew his application for observer status in the Committee on Sanitary and Phytosanitary Measures (SPS) of the World Trade Organization with a view to enhancing the exchange of information on deliberations and recent development in the respective bodies of relevance to alien invasive species;

(d) *Invites* Parties and Governments to take into consideration, as appropriate, the risks from invasive alien species during the development, expansion and environmental review of bilateral and regional trade arrangements; and

(e) *Invites* Parties and Governments to improve communication and cooperation between national environment, plant protection, trade and other relevant authorities with a view to increasing awareness on issues related to the prevention and management of risks from potentially invasive alien species and ensuring consistency of national policies and programmes;

5. *Invites* relevant Parties to the Convention on Biological Diversity and other Governments, as well as national, regional and international organizations to:

(a) Improve the coordination of regional measures to address transboundary issues through the development and implementation of regional standards, regional support for risk analysis and regional cooperation mechanisms;

(b) Support national and regional decision-making and rapid response through the further development of risk analysis, alert lists, diagnostic tools and capacity development;

(c) Incorporate invasive alien species considerations, including monitoring and reporting and notification of new threats, into regional agreements and other instruments, and make information on invasive alien species status and trends available through the clearing-house mechanism and other relevant regional information systems;

(d) Allocate, as appropriate, adequate financial resources and capacity for border control and quarantine measures with a view to improve synergies with policies relating to trade facilitation, food security, human health and environmental protection;

(e) Strengthen, as appropriate the cooperation between biodiversity, agriculture, forestry and land management agencies in the application of risk analysis standards and guidance;

(f) Consider the introduction of positive incentive measures for the eradication or control of invasive alien species and the use of native species in land and water management and other programmes;

(g) Proactively engage stakeholder groups in the eradication, and in the prevention and mitigation of impacts, of alien invasive species, including by awareness-raising and training as well as through the design and implementation of appropriate incentive measures;

6. *Notes* that specific gaps in the international regulatory framework persist, notably in relation to species that are invasive, but do not qualify as plant pests or animal diseases, and with regard to the following potential pathways:

(a) The use of non-native organisms in aquaculture and the restocking of marine and inland water systems for commercial and recreational fisheries;

(b) Unintentional or opportunistic introductions (e.g., “hitchhiker organisms”) , including through hull-fouling, packaging material, import consignments, vehicular transport and other means;

(c) Unintentional introductions of invasive alien species through international assistance and humanitarian programmes, tourism, military, scientific research, cultural and other activities;

(d) Intentional introductions of alien species for non-food purposes, including horticulture and trade in pets and aquarium species;

(e) Intentional introduction of alien species as biocontrol agents for control or eradication of invasive alien species or pests or weed control;

(f) Transnational and national *ex situ* breeding projects with alien species as sources for intentional or unintentional introduction; and

(g) Intentional introduction of invasive alien species through international assistance programmes, including conservation and development projects and other activities;

7. *Notes* that there is potential for the application of existing methodologies for risk assessment and risk analysis, including those established in the contexts of plant and animal health, to a wider range of issues related to invasive alien species;

8. Requests the Subsidiary Body on Scientific, Technical and Technological Advice to establish an ad hoc technical expert group to address gaps and inconsistencies in the international regulatory framework, in particular the specific gaps identified in paragraph 6 above, and, on the basis of the work of the expert group, to make recommendations for the full and effective implementation of Article 8(h) of the Convention, to the Conference of the Parties. The expert group should:

(a) Further clarify the gaps and inconsistencies in the international regulatory framework that are significantly hindering countries’ efforts to manage threats from invasive alien species, focusing this analysis on the known major pathways for the spread of invasive alien species, and taking into account past efforts of relevant organizations and initiatives that have considered the issue;

(b) Develop practical options on how to address these gaps and inconsistencies, where possible within the context of existing international frameworks, in order to achieve the full and effective implementation of Article 8(h), taking into account the costs/benefits of options for addressing the gaps and inconsistencies and the need for appropriate capacity-building at the national and regional level, to support this work;

In the event that the Ad Hoc Technical Expert Group identifies the potential need for standards or other measures, it should also identify the appropriate standard-making authority, if any, or other appropriate options, so that the Conference of the Parties can consider referring the issue to the appropriate standard-making authority and/or any other course of action that it considers appropriate;

9. *Requests* the Executive Secretary together with the Global Invasive Species Programme, and its participating organizations, and with other relevant organizations to address the priorities for practical actions identified in decision VI/23, 28/ and in the present decision;

10. *Invites* the Global Environment Facility, other funding institutions and development agencies to provide financial support for improved prevention, rapid response and management measures to address threats of alien invasive species.

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28/ One representative entered a formal objection during the process leading to the adoption of this decision and underlined that he did not believe that the Conference of the Parties could legitimately adopt a motion or a text with a formal objection in place. A few representatives expressed reservations regarding the procedure leading to the adoption of this decision (see UNEP/CBD/COP/6/20, paras. 294-324).

### 19.7. *Biological diversity and tourism*

*The following draft decision is taken from SBSTTA recommendation VIII/5.*

*The Conference of the Parties*

1. *Adopts* the Guidelines on Biodiversity and Tourism Development annexed to the present decision;
2. *Recognizing* that sustainable tourism can provide significant benefits to biodiversity conservation, *notes* that the Guidelines are voluntary and represent a range of opportunities for local, regional, national governments, indigenous and local communities and other stakeholders to manage tourism activities in an ecological, economic and socially sustainable manner;
3. *Recognizing* that these international guidelines have a broad application and audience, *requests* the Executive Secretary, in order to increase clarity and facilitate the detailed understanding of the guidelines and the implementation by Parties and to identify and address specific stakeholders, to:
  - (a) Develop a user's manual, checklists and on the basis of experience gained produce and make available a streamlined and user-friendly core set of voluntary guidelines;
  - (b) Prepare a glossary and definitions of terms used in the Guidelines;
  - (c) Promote the use of the clearing-house mechanism to collect and disseminate information on:
    - (i) Specific case-studies on the implementation of the Guidelines that make clearer reference to the use and application of specific analytical management tools; and
    - (ii) Best practices, lessons learned and case-studies on the involvement of indigenous and local communities embodying traditional lifestyles in sustainable-tourism and ecotourism activities and projects;
4. *Invites* Parties, the Governments and relevant organizations to implement pilot projects, also through public-private partnerships as outlined in the World Summit on Sustainable Development, to test the applicability of the Guidelines, understand their practical implications and provide feedback on their effectiveness (e.g. through the clearing-house mechanism);
5. *Encourages* Parties, Governments and relevant organizations to establish monitoring and reporting systems based on relevant indicators to assess the applicability and status of implementation of the Guidelines;
6. *Invites* Parties, Governments and relevant organizations to provide indigenous and local communities with capacity-building and financial resources to ensure their active participation in all the stages of the policy-making, development planning, product development and management indicated by the Guidelines and *invites* non-governmental organizations to continue and increase their involvement in fostering effective policy-making for sustainable tourism development;
7. In light of the collaboration between the Convention on Biological Diversity, the United Nations Environment Programme and the United Nations Educational, Scientific and Cultural Organization, *invites* the World Tourism Organization, the United Nations Conference on Trade and Development, the United Nations Development Programme, the World Bank, World Trade Organization, regional development banks and other relevant international organizations, to:

- (a) Take these Guidelines into account in undertaking their activities;
- (b) Provide technical and financial assistance in the implementation of the Guidelines and pay due regard to the Guidelines when preparing, approving and funding tourism development projects having potential implications on biological diversity, as also recommended in the report of the Workshop on Tourism and Biodiversity, held in Santo Domingo in June 2001. To this end, recommends that the Conference of the Parties forward the endorsed guidelines to financing agencies, regional development banks and developers;

8. *Invites* all Governments to integrate these Guidelines in the development or review of their strategies and plans for tourism development, national biodiversity strategies and action plans, and other related sectoral strategies, at appropriate levels in consultation with interested stakeholders including tourism operators;

9. *Calls for* additional efforts to increase awareness and training on the Guidelines and their applicability among the tourism sector and other stakeholders.

*Annex*

**GUIDELINES ON BIODIVERSITY AND TOURISM DEVELOPMENT**

***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***

***A. Scope***

1. The present Guidelines are voluntary and represent a range of opportunities for local, regional, national governments, indigenous and local communities and other stakeholders to manage tourism activities in an ecological, economic and socially sustainable manner.

2. The Guidelines will assist Parties to the Convention on Biological Diversity, public authorities and stakeholders at all levels, to apply the provisions of the Convention to the sustainable development and management of tourism policies, strategies, projects and activities. They will provide technical guidance to policy makers, decision makers and managers with responsibilities covering tourism and/or biodiversity, whether in national or local government, the private sector, indigenous and local communities,<sup>29/</sup> non-governmental organizations or other organizations, on a process for working together with key stakeholders involved in tourism and biodiversity.

3. The Guidelines cover all forms and activities of tourism. These activities should be consistent with the principles of conservation and sustainable use of biological diversity. These include, but are not limited to, conventional mass tourism, ecotourism, nature- and culture-based tourism, heritage tourism, cruise tourism, leisure and sports tourism. Although the primary focus of the Guidelines is vulnerable ecosystems and habitats, they are also appropriate for tourism and biological diversity in all geographical locations and tourist destinations. Furthermore the Guidelines recognize the need for collaboration between originating and receiving countries and should be used to address situations of conflict between local interests and national, regional and international policies.

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<sup>29/</sup> For the purposes of the present Guidelines “indigenous and local communities” means “indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity”.

**B. The policy-making, development planning and management process**

4. The main elements considered in developing the Guidelines are:
  - (a) Framework for management of tourism and biodiversity;
  - (b) Notification process in relation to such a management framework;
  - (c) Public education, capacity-building and awareness-raising concerning tourism and biodiversity.
5. Policy-making, development planning and the management process need to be undertaken through a multi-stakeholder process. Governments will normally coordinate this process at national level. This process may also be undertaken at more local levels by local government, and should ensure strong involvement of indigenous and local communities throughout the management and decision-making process. In addition, those responsible for tourism development and activities are encouraged to consult with and involve all relevant stakeholders, and especially those who are or may be affected by such developments and activities. The process applies to both new tourism development and the management of the existing tourism operations.

***Institutions***

6. In order to ensure coordination between the levels of decision-making in government departments and agencies concerned with management of biological diversity and tourism, inter- and intra-departmental and inter-organizational structures and processes should be established, if they do not already exist, to guide policy development and implementation.
7. There is a need to improve awareness and exchange of knowledge between those responsible for and affected by tourism and nature conservation at a national, subnational and local level. In addition, national biodiversity strategies and action plans should include consideration of tourism issues, and tourism plans should likewise include full consideration of biodiversity issues. Existing documents, strategies and plans should be coherent or revised and amended to that effect as applicable.
8. A consultative process should be established to ensure ongoing and effective dialogue and information-sharing with stakeholders, as well as to resolve conflicts that might arise in relation to tourism and biological diversity and build consensus. To assist in this process, a multi-stakeholder body should be established including government departments, the tourism sector, non-governmental organizations, indigenous and local communities and other stakeholders, to ensure their engagement and full participation in the whole process, and encourage the establishment of partnerships.
9. The institutional arrangements should provide for the comprehensive involvement of stakeholders in the management process described in these Guidelines.
10. Authorities and managers of protected areas have a special role for the management of tourism and biodiversity. To this end, there is a need for government support and resources for managers, including training to perform their role effectively. In addition, it is necessary to establish and review mechanisms and funding policies to ensure the availability of adequate resources for maintaining biodiversity and promoting sustainable tourism. International institutions and development agencies should be involved as appropriate.
11. To be sustainable, tourism development in any destination requires coordinated policy-making, development planning and management. The policy-making, development planning and management process comprises the following steps:

- (a) Baseline information and review;
- (b) Vision and goals;
- (c) Objectives;
- (d) Review of legislation and control measures;
- (e) Impact assessment;
- (f) Impact management and mitigation;
- (g) Decision-making;
- (h) Implementation;
- (i) Monitoring and reporting;
- (j) Adaptive management.

*1. Baseline information*

12. Baseline information is necessary to enable informed decisions to be taken on any issue. A minimum of baseline information is needed to enable impact assessment and decision-making and it is recommended that its compilation follow the ecosystem approach.

13. For tourism and biodiversity, the baseline information should include information, as appropriate, on:

(a) Current economic, social and environmental conditions at national and local level, including current and planned tourism development and activities and their overall positive and negative impacts, as well as development and activities in other sectors;

(b) Structure and trends within the tourism sector, tourism policy and tourism markets and trends, at national, regional and international level, including information based on market research as necessary;

(c) Environmental and biodiversity resources and processes, including any special features and sites of particular importance and protected areas, and identifying those resources that may be off bounds to development due to their particular fragility and those resources identified by existing analysis of threats;

(d) Culturally sensitive areas;

(e) Benefits from, and costs of, tourism to indigenous and local communities;

(f) Information on damage done to the environment in the past;

(g) National biodiversity strategies, action plans and reports and other sectoral plans and policies relevant for tourism development and biodiversity;

(h) National, subnational and local sustainable-development plans.

14. Baseline information should take into consideration all sources of knowledge. The adequacy of the baseline information available will need to be reviewed, and where necessary, further research and information-gathering can be undertaken to fill gaps that may be identified.

15. All stakeholders may contribute relevant information to this process, including indigenous and local communities. To this end, there is a need for capacity-building and training to assist stakeholders in documenting, accessing, analysing and interpreting baseline information.

16. Collation and synthesis of information provided will need to be undertaken by an appropriately qualified team, drawing on a range of expertise, including expertise in tourism and in biodiversity issues, and in traditional knowledge and innovation systems.

17. In order to ensure that all relevant information, its credibility and reliability, are considered, all stakeholders should be involved in review of the collated baseline information available, and in the synthesis of this information.

18. Baseline information should include maps, geographical information systems and other visual tools, including already identified zoning schemes.

19. The baseline information-gathering and review process should make full use of the clearing-house mechanism under the Convention on Biological Diversity, as well as other relevant networks such as the World Network of Biosphere Reserves, World Heritage sites and Ramsar sites.

20. Requirements for site-specific information in relation to proposals for tourism development and activities at particular locations are set out in the notification process, and its compilation should follow the ecosystem approach. To enable impact assessment and decision making, the basic information required includes:

(a) *Site-specific aspects:*

- (i) The various laws and regulations and plans that may be applicable to the specific site, including overviews of:
  - a. Existing laws at local, subnational and national levels;
  - b. Existing uses, customs and traditions;
  - c. Relevant regional and international conventions or agreements and their status, and cross-boundary agreements or memoranda of understanding (MoUs);
- (ii) Identification of various stakeholders involved in or potentially affected by the proposed project - including stakeholders in governmental, non-governmental, and private sectors (particularly those from the tourism sector), and indigenous and local communities - along with details concerning their participation in and/or consultation on the proposed project during its design, planning, construction and operation;

(b) *Ecological aspects:*

- (i) Detailed indication of the protected and biodiversity significant areas;
- (ii) Specifications on the ecosystems, habitats, species;
- (iii) Quantitative and qualitative information on the loss of habitats and species (main reasons, trends);

- (iv) Indexing of species;
  - (v) Identified threats;
  - (vi) Existing zones, ecological zones and existing tourism zones within the ecological zones;
  - (vii) Ecologically sensitive zones and zones where ecological disasters have or will most likely take place;
- (c) *Development aspects:*
- (i) Summary of the proposed project, why and by whom it is proposed, estimated outcomes and possible impacts (including impacts on the surrounding areas and transboundary impacts), and quantitative and qualitative data on these aspects;
  - (ii) Description of the stages of development and the various structures and stakeholders that may be involved at each stage;
  - (iii) Description of current land-uses, infrastructures, tourism facilities and services and their interaction with proposed operations.

## 2. *Vision and goals*

### *Vision*

21. An overall vision for sustainable tourism development in harmony with the goals and objectives of the Convention on Biological Diversity and other related conventions, such as the World Heritage Convention, is important for the effective management of tourism and biodiversity, and for ensuring that this also contributes to income generation and poverty reduction and a reduction of threats to biodiversity. The vision developed at the local level, while reflecting local priorities and realities, should take into account, as appropriate, national and regional tourism development strategies, policies and plans for economic and social development and for land-use, as well as the baseline information and review. It should be based on a multi-stakeholder process including indigenous and local communities that are or may be affected by tourism development.

### *Goals*

22. The main goals are established to maximize the positive benefits of tourism to biodiversity, ecosystems, and economic and social development, and of biodiversity to tourism, while minimizing negative social and environmental impacts from tourism, and can cover, *inter alia*:

- (a) Maintenance of the structure and functioning of ecosystems;
- (b) Sustainable tourism compatible with biodiversity conservation and sustainable use;
- (c) Fair and equitable sharing of benefits of tourism activities, with emphasis on the specific needs of the indigenous and local communities concerned;
- (d) Integration and interrelation with other plans, developments or activities in the same area;
- (e) Information and capacity-building;
- (f) Poverty reduction, through the generation of sufficient revenues and employment to effectively reduce threats to biodiversity in indigenous and local communities;

- (g) Protection of indigenous livelihoods, resources and of access to those resources;
- (h) Diversification of economic activities beyond tourism to reduce dependency on tourism;
- (i) Prevention of any lasting damage to biological diversity, ecosystems, and natural resources, and of social and cultural damage, and restoration of past damage;
- (j) Ensuring the effective participation and involvement of representatives of indigenous and local communities in all aspects of the development, operation and monitoring of tourism activities;
- (k) Zoning and control of tourism developments and activities, including licensing and overall targets for and limits to the scale of tourism, to provide a range of activities for user groups that meet overall visions and goals;
- (l) Empowerment through participation in decision-making;
- (m) Access by indigenous and local communities to infrastructure, transport, communications and healthcare provisions laid on for tourists;
- (n) Increased safety for indigenous local communities;
- (o) Increased social pride;
- (p) Control of tourism development and activities including licensing and clear indication on the limits to the scale and type of tourism development.

23. In relation to sharing of benefits arising from tourism and the conservation of biodiversity with indigenous and local communities, it should be noted that benefits may take various forms, including: job creation, fostering local enterprises, participation in tourism enterprises and projects, education, direct investment opportunities, economic linkages and ecological services. Appropriate mechanisms need to be established/ evolved to capture the benefits.

24. The vision and goals will form the basis of national strategies or master plans for sustainable development of tourism in relation to biodiversity. Such plans should also incorporate consideration of biodiversity strategies and plans. In addition, biodiversity strategies and plans should include consideration of tourism issues.

25. Governments will normally coordinate this process at national level. This process may also be undertaken at more local levels by local government, and by communities at community level. Where local and community level vision and goals for tourism and biodiversity have been set, these may be taken into account by governments when preparing the national level vision and goals, for example through workshops at the local level.

### 3. Objectives

26. The objectives focus on actions to implement specific elements of the overall vision and goals, and may include clear activities and the time by which these will be achieved. Objectives should be performance-based (e.g., construction of an interpretative trail to aid development of local guide services) and process-based (e.g., establishment of an operational management system for tourism and biodiversity). As with the vision and goals, it is important to involve and consult with all relevant stakeholders, and especially the tourism industry and indigenous and local communities that are or may be affected by tourism development, in the process for setting objectives.

27. Objectives should be specific and should include specific areas identified in clearly delineated zones listing the types of activities and infrastructure that would be acceptable and should be developed. It should also outline the impact management measures that would be appropriate, and intended markets (with greater detail, as set out in the notification process, being required for proposals for tourism development or activities at specific locations).

28. Governments may also wish to consider:

(a) Measures to ensure that sites designated at international level, such as Ramsar or World Heritage sites or Biosphere Reserves, are accorded appropriate legal recognition and government assistance at the national level;

(b) Establishing reserves based on the biosphere reserve concept and incorporating sustainable-development objectives, generating income and employment opportunities for indigenous and local communities, and promoting appropriate product development;

(c) Measures to ensure that sites, at the national level, such as national parks, reserves and marine conservation areas are accorded appropriate legal recognition, have management plans and are provided necessary government support;

(d) Strengthening the protected area network and encouraging the role of protected areas as key locations for good practices in the management of sustainable tourism and biodiversity, taking into account the full range of protected area categories;

(e) Use of economic policy tools to encourage the channelling of part of total tourism revenues towards supporting the conservation and sustainable use of biodiversity, such as conservation of protected areas, education, research programmes, or local community development;

(f) Encouraging all stakeholders, as well as the private sector, to actively support the conservation of biodiversity and the sustainable use of its components.

29. Governments will normally coordinate this process at national level. This process may also be undertaken at more local levels by local government, and by communities at community level. Where local- and community-level objectives for tourism and biodiversity have been set, these may be taken into account by governments when preparing national level objectives.

#### 4. *Legislation and control measures*

30. Respect for existing national legislation and appropriate regulatory mechanisms and tools, such as land-use planning, protected area management plans, environmental assessment, building regulations and standards for sustainable tourism, are essential for the effective implementation of any overall vision, goals, and objectives. A review of legislation and control measures could consider, as appropriate, the legislation and control measures available for implementation of the overall vision, goals and objectives for tourism and biodiversity, their effectiveness, including enforcement, and any gaps that may need to be addressed for example, by revision of—or the development of additional—legislation and control measures.

31. The review of legislation and control measures could include, *inter alia*, assessment of the effectiveness of any provisions for resource management, access, and/or ownership by communities, especially indigenous and local communities that are traditional use areas for their livelihoods and cultural purposes; addressing existing collective rights of indigenous and local communities; and for enabling these groups to make decisions about tourism development and activities, amongst other forms of development and activities, in these areas.

32. Legislation and control measures considered could include measures for:
- (a) Effective enforcement of existing laws, including the participation of all stakeholders;
  - (b) Approval and licensing processes for tourism development and activities;
  - (c) Controlling the planning, siting, design and construction of tourism facilities and infrastructures;
  - (d) Management of tourism in relation to biodiversity and ecosystems, including vulnerable areas;
  - (e) Application of environmental assessment, including assessment of cumulative impacts and effects on biodiversity, to all proposed tourism developments, and as a tool to develop policies and measure their impacts;
  - (f) Setting national standards and/or criteria for tourism that are consistent with overall national or regional plans for sustainable development and national biodiversity strategies and action plans:
    - (i) Environmental quality and land-use criteria in and around tourism sites;
    - (ii) Development of a decision-making process with environmental and cultural sustainability guidelines for new and existing tourism development within the designated goals and objectives of the site's different zones and within the limits of acceptable change;
  - (g) Integrated land-use management;
  - (h) Ensuring inter-linkages between tourism and cross-cutting issues, including agricultural development, coastal zone management, water resources, etc.;
  - (i) Mechanisms to resolve any inconsistencies between policy objectives and/or legislation in a manner that takes into account the interests of all stakeholders;
  - (j) Application of economic instruments, including tiered user fees, bonds, taxes or levies, for the management of tourism and biodiversity;
  - (k) Creating incentives for sustainable tourism development in line with the provisions of the Convention on Biological Diversity and Agenda 21 through relevant economic mechanisms;
  - (l) Supporting private sector voluntary initiatives consistent with these Guidelines, such as certification schemes and providing opportunities for the private tourism sector to contribute to management initiatives through direct donations, in-kind services, and other voluntary initiatives consistent with these Guidelines, and relevant policies;
  - (m) Avoiding tourism development or activities outside those areas set out in the objectives;
  - (n) Monitoring, control of and provision of information on activities related to collection and trade of biological and related cultural resources within tourism sites.
33. Governments will normally coordinate this process at the national level. It is important to involve and consult with all relevant stakeholders, and especially indigenous and local communities that are or may be affected by tourism development, in the process for reviewing legislation and control measures,

assessing their adequacy and effectiveness, and proposing development of new legislation and measures where necessary.

### 5. *Impact assessment*

34. Impact assessment for sustainable tourism development in ecosystems should be based on the “Guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or processes and in strategic environmental assessment” developed by the Convention on Biological Diversity and contained in the annex to decision VI/7 A (paras. 1-24).

35. At national level, Governments should normally undertake assessment of impacts associated with the overall vision, goals and objectives for tourism and biodiversity. In addition, this process may also be undertaken at more local levels by local government, and by indigenous and local communities.

36. Proposers of tourism developments or activities should assess the potential impacts of their proposals and provide information on this through a notification process.

37. Governments will normally undertake evaluations of the adequacy of impact assessments submitted by proposers of tourism developments or activities. These evaluations will need to be undertaken by an appropriately qualified team, drawing on a range of expertise, including expertise in tourism and in biodiversity management, and also involving those indigenous and local communities that would be affected by the proposals. There should be public access to the documentation.

38. If the information provided is not sufficient, or the impact assessment inadequate, then further impact assessment studies may need to be undertaken. The proposer may be requested to undertake such studies, or the Government may decide to undertake these studies, and may request funds from the proposer for this purpose, as appropriate. Other stakeholders, including biodiversity managers and indigenous and local communities that may be affected by a proposed development, may also provide their assessments of impacts associated with specific proposals for tourism developments or activities, and provisions may be needed to ensure that any such assessments are taken into account by decision-makers.

39. Indigenous and local communities concerned should be fully involved in impact assessment. Their traditional knowledge should be acknowledged and considered for impact assessment in particular tourism projects that affect their sacred sites or lands and waters occupied or used by indigenous and local communities.

40. Sufficient time should be allowed considering the different conditions and circumstances to ensure that all stakeholders are able to participate effectively in the decision-making process for any project using information provided by the impact assessment. Such information should be provided in forms that are accessible and comprehensible to all the various stakeholders involved.

41. Impacts of tourism in relation to the environment and biological diversity may include:

(a) Use of land and resources for accommodation, tourism facilities and other infrastructure provision, including road networks, airports and seaports;

(b) Extraction and use of building materials (e.g., use of sand from beaches, reef limestone and wood);

(c) Damage to or destruction of ecosystems and habitats, including deforestation, draining of wetlands, and intensified or unsustainable use of land;

- (d) Increased risk of erosion;
- (e) Disturbance of wild species, disrupting normal behaviour and potentially affecting mortality and reproductive success;
- (f) Alterations to habitats and ecosystems;
- (g) Increased risk of fires;
- (h) Unsustainable consumption of flora and fauna by tourists (e.g., through picking of plants; or purchase of souvenirs manufactured from wildlife, in particular such endangered species as corals and turtle shells; or through unregulated hunting, shooting and fishing);
- (i) Increased risk of introduction of alien species;
- (j) Intensive water demand from tourism;
- (k) Extraction of groundwater;
- (l) Deterioration in water quality (freshwater, coastal waters) and sewage pollution;
- (m) Eutrophication of aquatic habitats;
- (n) Introduction of pathogens;
- (o) Generation, handling and disposal of sewage and waste-water;
- (p) Chemical wastes, toxic substances and pollutants;
- (q) Solid waste (garbage or rubbish);
- (r) Contamination of land, freshwater and seawater resources;
- (s) Pollution and production of greenhouse gases, resulting from travel by air, road, rail, or sea, at local, national and global levels;
- (t) Noise.

42. Socio-economic and cultural impacts related to tourism may include:

- (a) Influx of people and social degradation (e.g. local prostitution, drug abuse, etc.);
- (b) Impacts on children and youth;
- (c) Vulnerability to the changes in the flow of tourist arrivals which may result in sudden loss of income and jobs in times of downturn;
- (d) Impacts on indigenous and local communities and cultural values;
- (e) Impacts on health and the integrity of local cultural systems;
- (f) Intergenerational conflicts and changed gender relationships;
- (g) Erosion of traditional practices and lifestyles;

(h) 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.

43. The potential benefits of tourism may include:

- (a) Revenue creation for the maintenance of natural resources of the area;
- (b) Contributions to economic and social development, for example:
  - (i) Funding the development of infrastructure and services;
  - (ii) Providing jobs;
  - (iii) Providing funds for development or maintenance of sustainable practices;
  - (iv) Providing alternative and supplementary ways for communities to receive revenue from biological diversity;
  - (v) Generating incomes;
  - (vi) Education and empowerment;
  - (vii) An entry product that can have direct benefits for developing other related products at the site and regionally;
  - (viii) Tourist satisfaction and experience gained at tourist destination.

#### 6. *Impact management and mitigation*

44. Impact management is essential to avoid or minimize any potential damage to biodiversity conservation and sustainable use that tourism development or activities might cause. Proposals for tourism development or activities may incorporate proposals for impact management, but these may not necessarily be judged sufficient to deal with potential impacts on biodiversity. Therefore all stakeholders, and especially Governments that exercise overall control over tourism development and activities, will need to consider the various impact management approaches that may be necessary in any given situation. In particular, Governments should be aware that the tourism industry could provide a direct impetus for conservation of vulnerable ecosystems by supporting sustainable tourism activities that have a direct commercial interest in maintaining the vulnerable ecosystem in a good condition.

45. Tourism should be planned and managed using the internationally accepted planning methodologies (such as the Recreation Opportunity Spectrum and the Limits of Acceptable Change). In vulnerable ecosystems, based on these methodologies and relevant background information, tourism should be restricted and where necessary prevented.

46. Impact management can include, *inter alia*, measures for the siting of tourism development and activities, including establishing appropriate activities in different designated zones, differentiation between the impacts of different types of tourism, and measures to control tourist flows in and around tourist destinations and key sites, to promote appropriate behaviour by tourists so as to minimize their impacts, and to establish limits to numbers of visitors and their impacts within Limits of Acceptable Change at any site.

47. Impact management in relation to transboundary ecosystems and migratory species requires regional cooperation.

48. There is a need to identify those who will be responsible for implementing impact management and the resources that will be required for impact management.

49. Impact management for tourism development and activities can include the adoption and effective implementation of policies, good practices and lessons learned that cover, *inter alia*:

(a) Controlling impacts of major tourist flows including excursions, cruise ships, etc., which can cause serious effects on destinations even though they are visited for only short periods;

(b) Reducing impacts of activities outside tourism areas on adjacent and other ecosystems of importance for tourism (e.g., pollution from nearby farming activities or extractive industries may affect areas of tourism development);

(c) Responsible use of natural resources (e.g., land, soil, energy, water);

(d) Reducing, minimizing and preventing pollution and waste (e.g. solid and liquid waste, emissions to air, transport);

(e) Promoting the design of facilities that are more eco-efficient, which adopt the cleaner production approach, and use environmentally sound technologies, in particular to reduce emissions of carbon dioxide and other greenhouse gases and ozone-depleting substances, as set out in international agreements;

(f) Conserving flora, fauna and ecosystems;

(g) Preventing the introduction of alien species as a result of the construction, landscaping and operating of tourism activities, including for example from shipping associated with tourism;

(h) Conserving landscapes, cultural and natural heritage;

(i) Respecting the integrity of local cultures and avoiding negative effects on social structures, involving, and cooperating with, indigenous and local communities, including measures to ensure respect for sacred sites and customary users of these sites, and to prevent negative impacts on them and on lands and waters occupied or used by indigenous and local communities, as well as on their subsistence resources;

(j) Using local products and skills, and providing local employment;

(k) Promoting appropriate behaviour by tourists so as to minimize their adverse impacts, and to promote positive effects through education, interpretation, extension, and other means of awareness-raising;

(l) Alignment of marketing strategies and messages with the principles of sustainable tourism;

(m) Contingency plans for handling accidents, emergencies or bankruptcies that may occur during construction and use of facilities and which may threaten the environment and the conservation and sustainable use of biodiversity;

(n) Environmental and cultural sustainability audits and review of existing tourism activities and developments and of the effectiveness with which impact management is being applied to existing tourism activities and developments;

(o) Mitigation measures for existing impacts, and appropriate funding to support them. Such measures should include development and implementation of compensation measures in cases when tourism has resulted in negative environmental, cultural, and socio-economic effects, taking into consideration the polluter-pays principle.

50. Governments, in cooperation with biodiversity managers, those communities that would be affected by the proposals, and other stakeholders, would normally assess the need for impact management in addition to any management measures included in the proposals under consideration. All stakeholders should understand the importance of such impact management.

51. The tourism industry can assist in promoting corporate policies on sustainable tourism and biodiversity, with defined goals, monitoring and reporting their progress publicly on a regular basis.

## 7. Decision-making

52. Decisions will be made concerning approval or otherwise of, *inter alia*:

- (a) National strategies and plans for tourism and biodiversity;
- (b) Proposals for tourism development and activities at particular locations in relation to biodiversity, which are to be submitted through the notification process;
- (c) Adequacy of impact management measures in relation to anticipated impacts from tourism development and activities;
- (d) Adequacy and frequency of monitoring and reporting.

53. Such decisions will ultimately be taken by Governments (or specific authorities designated by Governments). It is recognized, however, that effective consultation with and participation of the communities and groups affected, including specific input from biodiversity managers, and from indigenous and local communities as well as the private sector in a broad sense, is an important foundation of the decision-making process and critical to sustainable development. Decision makers should consider using multi-stakeholder processes as a tool for the decision-making process.

54. The decision-making process should be transparent, accountable, and apply the precautionary approach. Legal mechanisms should be put in place for notification and approval of tourism development proposals and for ensuring implementation of the conditions of approval of development proposals.

55. For proposals for tourism development and activities at particular locations, the proposers will normally be required to provide the information set out in the notification process. This should apply equally to public-sector development and infrastructure projects, as well as to private-sector development. Impact assessment should be a component of any decision-making process.

56. Measures should be taken to ensure full and timely disclosure of project information concerning tourism development proposals. Decision-making should include the prior informed consent of indigenous and local communities affected by projects in order to ensure, *inter alia*, respect for the customs and traditional knowledge, innovations and practices of indigenous and local communities, and adequate funding and technical support should be provided for these groups to participate effectively. A thorough consultation process with the indigenous and local community, based on the availability of all relevant information, is needed as a basis for prior informed consent.

57. Decisions should include a review of the adequacy of information available, that could cover, *inter alia*, baseline information, impact assessment, and information on the proposed tourism

development or activity, its nature and size, the type(s) of tourism involved, and information on human settlements and communities that may be affected.

58. In cases where there is not sufficient contextual/baseline information available at the time, or where the overall vision, goals and objectives for tourism and biodiversity have not been developed sufficiently to make a decision, decisions may be deferred pending sufficient information being obtained, and/or completion of overall plans/goals.

59. In making a decision, conditions may be attached to any approvals that may be granted, including conditions regarding management of tourism in relation to avoidance or minimization of adverse impacts on biodiversity, and for appropriate decommissioning of tourism activities should the development cease. Decision makers may also, as appropriate, request further information from a proposer; defer a decision pending further baseline research by other agencies; or refuse a proposal.

### 8. *Implementation*

60. Implementation follows a decision to approve a particular proposal, strategy or plan. Unless otherwise stated, the developer and/or operator will be responsible for complying with the conditions for granting the approval; and, as part of this process, they can also be required to notify the designated government authority of any failures to comply with conditions attached to an approval, including conditions for decommissioning, and/or of any changes in circumstances, including unforeseen environmental conditions and/or biodiversity issues (e.g., detection of rare or endangered species not recorded in the original proposal and impact assessment).

61. Any revisions or changes to an approved project, including additions and/or variations of activities, must be approved by the designated authorities before construction.

62. Implementation plans should recognize that indigenous and local communities and other relevant stakeholders may require assistance as actors in implementation, and should ensure that sufficient resources are available for implementation and for effective participation.

63. Local stakeholders should be given an ongoing opportunity to express their wishes and concerns to those managing tourism facilities and activities. As part of this process, clear and adequate information regarding implementation should be provided for review by the stakeholders, in forms that are accessible and comprehensible to them.

64. Availability of information on policies, programmes, projects, and their implementation, including information on existing and future guidelines, should be ensured and exchange of information fostered, for example, through the clearing house mechanism of the Convention on Biological Diversity.

### 9. *Monitoring and reporting*

65. It is necessary to establish a monitoring and control system for the management of tourism activities and biological diversity. Long-term monitoring and assessment are necessary in relation to the impacts of tourism on biodiversity, and will need to take into account the timescale for ecosystem changes to become evident. Some effects may develop quickly, while others may take place more slowly. Long-term monitoring and assessment provide a means for detecting adverse effects that may arise from tourism activities and development in relation to biodiversity, so that action can be taken to control and mitigate such effects.

66. Monitoring and surveillance in relation to management of tourism and biodiversity includes, *inter alia*, the following main areas:

(a) Implementation of approved tourism developments or activities, and compliance with any conditions attached when approval was granted, and taking appropriate actions in cases of non-compliance;

(b) Impacts of tourism activities on biodiversity and ecosystems, taking appropriate preventative actions as necessary;

(c) Impacts of tourism on the surrounding population, especially indigenous and local communities;

(d) General tourism activities and trends, including tour operations, tourism facilities, and tourist flows in originating and receiving countries, including progress towards sustainable tourism;

(e) Clearly defined objectives, actions and targets for conservation or mitigation of threats to biodiversity, maintenance or restoration of ecosystems and for tourism;

(f) Compliance with, and enforcement as necessary, of conditions attached to any approval. Communities and other interested stakeholders may also monitor and report their findings to the designated government authorities.

67. Developers and operators of tourism facilities and activities should be required to report periodically to designated authorities and to the public on compliance with conditions set out in approvals, and on the condition of biodiversity and the environment in relation to the tourism facilities and activities for which they are responsible.

68. Prior to the commencement of any new tourism development or activities, an inclusive monitoring and reporting system should be put in place, with indicators to track how tourism actions are mitigating threats to biodiversity, along with agreed upon quantifiable standards indicating thresholds of acceptable change. These should be developed in conjunction with all key stakeholders including indigenous and local communities.

69. Indicators to cover aspects of management of biodiversity and sustainable tourism, including socio-economic and cultural aspects, should be identified and monitored at global, national, and local levels, and should include, but not be limited to, the following:

(a) Conservation of biodiversity;

(b) Generation of income and employment from tourism (long-term and short-term);

(c) Proportion of tourism income retained in the local community;

(d) Effectiveness of multi-stakeholder processes for management of biodiversity and sustainable tourism;

(e) Effectiveness of impact management;

(f) Contribution of tourism to the well-being of the local population;

(g) Visitor impacts and visitor satisfaction.

70. Monitoring results depend largely on the appropriate set of data to be collected. Guidelines on how to collect data in a way that can be used to evaluate change over time should be developed. Monitoring could follow a standard process and format, and be based on a framework including parameters on social, economic, environmental and cultural impact.

71. Monitoring and surveillance in relation to biodiversity impacts should include activities undertaken to ensure respect for endangered species under relevant international agreements, prevention of the introduction of alien species as a result of tourism activities, compliance with national rules concerning access to genetic resources, and prevention of illegal and unauthorised removal of genetic resources.

72. In relation to indigenous and local communities, monitoring and evaluation should include development and use of appropriate tools to monitor and evaluate tourism impacts on the economy of indigenous and local communities, particularly their food and health security, traditional knowledge, practices and customary livelihoods. Use of indicators and early warning systems should be developed as appropriate, taking into account traditional knowledge, innovation and practices of indigenous and local communities, and guidelines developed under the Convention on Biological Diversity relating to traditional knowledge. Measures should also be taken to ensure that indigenous and local communities involved in, or affected by tourism, have the opportunity to be involved effectively in monitoring and evaluation.

73. Monitoring of general environmental and biodiversity conditions and trends, as well as tourism trends and impacts, can be undertaken by Governments, including designated biodiversity managers. Management measures may need to be adjusted, as appropriate, where adverse impacts on biodiversity and ecosystems are detected. The need for and nature of such adjustments will be based on the results of monitoring, and it is important for these to be determined in dialogue with all relevant stakeholders, including the developers and/or operators of tourism facilities and activities, communities affected by those facilities and activities, and other interested stakeholders. The monitoring process needs to be multi-stakeholder and transparent.

#### *10. Adaptive management*

74. 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. <sup>30/</sup>

75. 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. Adaptive management should also take the precautionary approach fully into account.

76. Implementation programmes should be designed to adjust to the unexpected, rather than to act on the basis of a belief in certainties.

77. Ecosystem management needs to recognize the diversity of social and cultural factors affecting natural-resource use and sustainability.

78. 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’

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<sup>30/</sup> Monitoring at World Heritage sites should be designed to also incorporate the World Heritage criteria upon which the site was inscribed. The monitoring system should be designed to contribute to the World Heritage periodic reporting structure, aimed at gathering information on the state of conservation of the site.

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. In addition, adaptive management learning portfolios should be developed between different sites so that comparison can be made and lessons learned.

79. Implementing adaptive management in relation to tourism and biodiversity will require the active cooperation of all stakeholders in tourism, and especially those in the private sector, with biodiversity managers. Impacts on biodiversity at a particular location may require rapid curtailment of visits by tourists to prevent further damage, and to allow for recovery, and in the longer-term, may necessitate an overall reduction in tourist flows. It may be possible for tourists to be redirected to less sensitive areas in such cases. In all cases, maintenance of the balance between tourism and biodiversity will require close interaction between tourism managers and biodiversity managers, and appropriate frameworks for management and dialogue are likely to need to be established.

80. Governments, including designated biodiversity managers, in conjunction with all other stakeholders will therefore need to take actions, as appropriate, to address any problems encountered and to keep on track towards agreed goals. This may include changes and additions to conditions set in the original approval, and will require participation of and consultation with the developer and/or operator of the tourism facilities and activities concerned, and with local communities.

81. Adaptive management can also be undertaken by all those who have management control over any specific site, including local governments, indigenous and local communities, the private sector, non-governmental organizations and other organizations.

82. Where necessary, legal frameworks may need to be reviewed and amended to support adaptive management, taking into account experience gained.

### *C. Notification process and information requirements*

83. Proposals for tourism development and activities at particular locations in relation to biodiversity are to be submitted through the notification process. As such, this process provides the link between proposers of tourism activities and development, and the management process steps outlined above. In particular, the notification process makes specific links to the steps in the management process for impact assessment and decision-making and should take into account local, regional and national impacts. Proposers of tourism projects, including government agencies, should provide full and timely advance notice to all stakeholders who may be affected, including indigenous and local communities, of proposed developments through a formal process of prior informed consent.

84. Information to be provided as part of the notification could include:

(a) Scale and types of tourism development or activities proposed, including a summary of the proposed project, why and by whom it is proposed, estimated outcomes and possible impacts, and a description of the stages of development and the various structures and stakeholders that may be involved at each stage;

(b) Analysis of market for proposed tourism development or activities, based on market conditions and trends;

(c) Geographical description including recreation opportunity zones, outlining tourist activities and infrastructure development, and location of the site of tourism development or activities, the identity and any special features of the surrounding environments and biodiversity;

- (d) Nature and extent of human-resource requirements and plans for their procurement;
- (e) Identification of various stakeholders involved in or potentially affected by the proposed project - including stakeholders in governmental, non-governmental, and private sectors, and local communities - along with details concerning their participation in and/or consultation on the proposed project during its design, planning, construction and operation;
- (f) The perceived roles of local stakeholders in the proposed development;
- (g) The various laws and regulations that may be applicable to the specific site, including overviews of existing laws at local, subnational and national levels, of existing uses and customs, of relevant regional and international conventions or agreements and their status, and cross-boundary agreements or memoranda or understanding and any proposed legislation;
- (h) The proximity of the site to human settlements and communities, sites used by people from those settlements and communities as part of their livelihoods and traditional activities, and heritage, cultural or sacred sites;
- (i) Any flora, fauna and ecosystems that could be affected by the tourism development or activities, including keystone, rare, endangered or endemic species;
- (j) Ecological aspects of the site and its surroundings, including indication of any protected areas; specifications on the ecosystems, habitats, and species; quantitative and qualitative information on the loss of habitats and species (main reasons, trends), and indexing of species;
- (k) Training and supervision of personnel carrying out the tourism development or activities;
- (l) Likelihood of impacts beyond the immediate area of the tourism development or activities, including transboundary impacts and effects on migratory species;
- (m) A description of current environmental and socio-economic conditions;
- (n) Expected changes to environmental and socio-economic conditions as a result of the tourism development or activities;
- (o) Proposed management measures to avoid or minimize adverse impacts from the tourism development or activities, including verification of their functioning;
- (p) Proposed measures for mitigation, decommissioning and compensation in the event of problems arising with the tourism development or activities;
- (q) Proposed measures to maximize the local benefits of the tourism development or activities on surrounding human settlements and communities, biodiversity and ecosystems, which may include, but are not limited to:
  - (i) Using local products and skills;
  - (ii) Employment;
  - (iii) Restoration of biodiversity and ecosystems;
- (r) Relevant information from any previous tourism development or activities in the region, and information on possible cumulative effects;

(s) Relevant information from any previous tourism development or activities by the proposer.

85. Categories of responses that Governments may wish to consider making in response to notification of proposals for, and requests for permission to undertake, tourism development, include, *inter alia*:

- (a) Approval without conditions;
- (b) Approval with conditions;
- (c) Request for further information;
- (d) Deferral pending further baseline research by other agencies;
- (e) Refusal of the proposal.

**D. Education, capacity-building and awareness-raising**

86. Education and awareness-raising campaigns need to be addressed to both the professional sectors and the general public and should inform them about the impacts of tourism on biological diversity, and good practices in this area. The private sector, and, especially, tour operators, could provide information more widely to their clients—the tourists—about tourism and biodiversity issues, and encourage them to conserve, and avoid adverse impact on, biodiversity and cultural heritage to respect national legislation of the visited country, as well as traditions of indigenous and local communities of that country, and to support actions in conformity with the present Guidelines.

87. Awareness campaigns explaining the link between cultural diversity and biological diversity will need to be tailored for various audiences, particularly stakeholders including consumers of tourism, developers and tourism operators.

88. Education and awareness-raising is required at all levels of government. This should include processes for increasing mutual understanding between relevant ministries, including joint and innovative approaches for dealing with tourism and environmental issues.

89. Awareness should also be increased within and outside government that vulnerable ecosystems and habitats are often located within lands and waters occupied or used by indigenous and local communities.

90. The tourism sector as a whole, along with tourists should be encouraged to minimize any negative impacts and maximize positive impacts on biodiversity and local cultures associated with their consumption choices and behaviour, for example through voluntary initiatives.

91. It is also important to raise awareness within the academic sector responsible for training and research on issues regarding the interaction between biological diversity and sustainable tourism, of the role that they can play concerning public education, capacity-building and awareness-raising on these issues.

92. Capacity-building activities should aim to develop and strengthen the capacities of Governments and all stakeholders to facilitate the effective implementation of the present Guidelines, and may be necessary at local, national, regional and international levels.

93. Capacity-building activities can be identified through the adaptive management process and can include strengthening human resources and institutional capacities, the transfer of know-how, the

development of appropriate facilities, and training in relation to biological diversity and sustainable tourism issues, and in impact assessment and impact management techniques.

94. Such activities should include ensuring that local communities are equipped with the necessary decision-making abilities, skills and knowledge in advance of future tourist in-flows, as well as with relevant capacity and training regarding tourism services and environmental protection.

95. Capacity-building activities should include, but not be limited to:

(a) Capacity-building and training to assist all stakeholders, including Governments, and indigenous and local communities, in accessing, analysing and interpreting baseline information, undertaking impact assessments and evaluations, impact management, decision-making, monitoring and adaptive management;

(b) Development or strengthening of mechanisms for impact assessment with the participation of all stakeholders, including for the approval of the approach, content and scope of impact assessment;

(c) Establishment of multi-stakeholder processes involving government departments, tourism sector, non-governmental organizations, indigenous and local communities and other stakeholders;

(d) Training of tourism professionals in conservation and biodiversity issues.

96. Information exchange and collaboration regarding sustainable tourism implementation through networking and partnerships between all stakeholders affected by, or involved in tourism, including the private sector, should be encouraged.

### **19.8. Article 8(j) and related provisions**

#### **A. Progress report on the integration of the relevant tasks of the programme of work on Article 8(j) into the thematic areas of the Convention**

*The following draft decision is taken from recommendation 3/1 of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity (UNEP/CBD/COP/7/7, annex).*

*The Conference of the Parties*

1. *Notes* the progress made in the integration of the relevant tasks of the programme of work in the thematic programmes of the Convention;
2. *Requests* the Executive Secretary to prepare a progress report on the integration of the relevant tasks of the programme of work on Article 8(j) into each of the thematic areas for the consideration of the Ad Hoc Working Group on Article 8(j) and Related Provisions at its fourth meeting.

#### **B. Review of progress in the implementation of the priority tasks of the programme of work on Article 8(j) and related provisions**

*The following draft decision is taken from recommendation 3/2 of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity (UNEP/CBD/COP/7/7, annex).*

*The Conference of the Parties*

1. *Notes* the progress made in the implementation of the priority tasks of the programme of work on Article 8(j) and related provisions;
2. *Urges* Parties, where they have not already done so, to include information in their national reports on the status and trends in relation to traditional knowledge, innovations and practices of indigenous and local communities and on progress made in the implementation of the priority tasks of the programme of work at the international, national, subnational and local levels;
3. *Requests* the Executive Secretary to prepare a report on progress on the implementation of the programme of work on Article 8(j) and related provisions based on information submitted in national reports, and other relevant information, for the next meeting of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions.

#### **C. Genetic use restriction technologies**

*The following draft decision is taken from recommendation 3/3 of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity (UNEP/CBD/COP/7/7, annex).*

*The Conference of the Parties*

1. *Invites* Parties and Governments, in collaboration with relevant organizations, to urgently create and develop, in accordance with identified needs and priorities, capacity-building programmes including the promotion of information and awareness campaigns, to involve and enable smallholder

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farmers, indigenous and local communities, and other relevant stakeholders to effectively participate in decision-making processes related to genetic use restriction technologies;

2. *Requests* the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention, to consider the potential socio-economic impacts of genetic use restriction technologies on indigenous and local communities, at its next meeting, on the basis of the report of the Ad Hoc Technical Expert Group on Genetic Use Restriction Technologies, the outcome of the deliberations of the tenth meeting of the Subsidiary Body on Scientific Technical and Technological Advice on this issue, and the study undertaken by the Food and Agriculture Organization of the United Nations, pursuant to decision V/5, on potential impacts of genetic use restriction technologies on agricultural biodiversity and agricultural production systems;

3. *Invites* Parties and indigenous and local communities to review the recommendations of the Ad Hoc Technical Expert Group on Genetic Use Restriction Technologies, as they relate to Article 8(j) and related provisions of the Convention, and provide comments thereon to the Executive Secretary, for consideration at the fourth meeting of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention;

4. *Request* the Executive Secretary to compile information provided by Parties and indigenous and local communities pursuant to subparagraph (c) above and submit the compilation to the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention at its fourth meeting.

***D. Composite report on the status and trends regarding the knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity***

*The following draft decision is taken from recommendation 3/4 of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity (UNEP/CBD/COP/7/7, annex).*

*The Conference of the Parties*

***Phase one***

1. *Takes note* with appreciation of the information contained in document UNEP/CBD/WG8J/3/INF/1 prepared for the third meeting of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity;

2. *Decides* to undertake further activities to complete phase I of the composite report by the next meeting of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions,

3. *Urges* Parties, Governments, relevant organizations, indigenous and local communities and all relevant stakeholders to provide information, through the clearing-house mechanism of the Convention and other feasible means/media, to the Executive Secretary to support the completion of phase I of the composite report,

4. *Requests* the Executive Secretary to continue work on phase I of the composite report in order to produce a revised version of it, in consultation with and with input from Parties, Governments, relevant organizations, all relevant stakeholders as appropriate, and from indigenous and local

communities through the national focal points in consultation with and after approval of indigenous and local communities, taking into account the following elements, *inter alia*:

- (a) Organization of regional workshops;
- (b) Gathering at national level and inclusion in phase I of the report of additional information in particular on:
  - (i) Assessment, particularly by indigenous and local communities, of the success of measures and initiatives to support the retention and use of knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biological diversity, including the advantages and limitations of registers as a measure to protect traditional knowledge, innovations and practices, and to promote its use as well as approaches used for the implementation of registers, and of incentives and disincentives for the retention and use of traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity;
  - (ii) Examples of measures to protect traditional knowledge, innovations and practices and promote their use;
  - (iii) Recent field studies undertaken with the full involvement of indigenous and local communities which demonstrate the state of knowledge, innovations and practices;
- (c) Preparation of a regional report focusing on the Arctic region;
- (d) Action on decision VI/10, annex I, paragraph 28 (b), to create an advisory group/steering committee in which indigenous and local communities will be represented to assist in the completion of the report and undertake a peer review of the revised version, in consultation with indigenous peoples and local community organizations that have participated in the work on the Convention.

***Phase two***

5. *Requests* the Executive Secretary, through the national focal points in consultation with and after approval of indigenous and local communities and in consultation with and with input from Parties, Governments, relevant organizations, indigenous and local communities and all relevant stakeholders as appropriate, to immediately start work on a second phase of the composite report, laying emphasis on sections 4 and 5 of the outline of the composite report, foreseeing respectively the identification of national processes that may threaten the maintenance, preservation and application of traditional knowledge, innovations and practices and the identification of processes at the local community level that may threaten the maintenance, preservation and application of traditional knowledge, innovations and practices (annex I to decision VI/10);

6. *Encourages* Parties, Governments and competent organizations to support the efforts of indigenous and local communities to undertake field studies to determine the status, trends and threats related to traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity, with the full involvement and approval of these communities. In undertaking these studies, the general principles of the programme of work on Article 8(j) and related provisions should be respected and followed, as should decision VI/10, annex I, paragraph 28 (d), which states that

codes of ethics/guidelines which entail permission and/or consent of indigenous and local communities to enter the communities and conduct the research, will be respected and followed;

***Financial support***

7. *Urges* Parties, Governments and relevant organizations to provide financial assistance for the completion of phase I and activities under phase II of the preparation of the composite report, in particular in order to support the full involvement and participation of indigenous and local communities in this work;

***Development of a plan of action***

8. *Requests* the Executive Secretary, through the national focal points in consultation with and after approval of indigenous and local communities, to further develop the draft elements for an action plan contained in the annex to the present recommendation, in particular with a view to identifying actors and timeframes, taking fully into account ongoing work under the Convention and relevant international organizations. The action plan would aim to:

(a) Facilitate synergy between existing initiatives aimed at halting the loss of and encouraging the retention and use of traditional knowledge, innovations and practices of indigenous and local communities;

(b) Provide further practical guidance, respectful of indigenous and local communities' perspectives, for the implementation of the programme of work on the implementation of Article 8(j) and related provisions as it relates to the retention of traditional knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.

9. *Invites* Parties, Governments and relevant organizations to take the elements identified in the annex into consideration when deciding upon activities to protect traditional knowledge, innovations and practices and to promote their use.

*Annex*

**DRAFT ELEMENTS OF A PLAN OF ACTION FOR THE RETENTION OF TRADITIONAL KNOWLEDGE, INNOVATIONS AND PRACTICES OF INDIGENOUS AND LOCAL COMMUNITIES EMBODYING TRADITIONAL LIFESTYLES**

*A. Improved monitoring and reporting process*

1. National reports on Article 8(j) should be compiled by Parties in consultation with indigenous and local communities, based on a questionnaire to be produced by the Secretariat.
2. Reporting periods should be agreed upon and reviews of the status and trends of traditional knowledge, innovations and practices should be pursued on a regular basis.
3. Mobilization of resources to undertake regular review should be promoted.

4. Mechanisms should be established to encourage representatives of indigenous groups and local communities to present information under the Convention on Biological Diversity, including capacity building and incentive measures.
5. Mechanisms should be developed to ensure input from overseas territories and autonomous or semi-autonomous regions<sup>31/</sup>.
6. The thematic focal point on Article 8(j) under the clearing-house mechanism should be utilized to catalogue and share best.
7. A survey of current activities of international organizations relevant to Article 8(j) should be undertaken with view to developing synergy.

*B. Indicators*

8. Indicators on the state of retention of traditional knowledge, innovations and practices should be established with the active involvement of indigenous and local communities, in consultation with relevant organizations, in connection with the ongoing work on indicators under the Convention.
9. Indicators to assess the success or failure of measures to promote or preserve traditional knowledge, innovations and practices should be established, with the active involvement of indigenous and local communities, in connection with the ongoing work on indicators under the Convention.
10. Information on legislative measures to protect and promote the use of traditional knowledge, innovations and practices as drawn from regional and national reports, should be kept up to date.

*C. Research ethics*

11. Examples of codes of ethics and conduct governing research as used by such bodies as research institutions, business and indigenous and local communities, should be gathered with a view to assisting in future possible development of codes of ethics or conduct, and to guide further research on the retention and use of traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity;
12. Parties, Governments, international organizations, research institutions and business should respect and promote existing codes of ethics or conduct governing research, and Parties, Governments and relevant organizations should facilitate the development of additional codes by indigenous and local communities where none exist.

*D. Research on and implementation of mechanisms and measures to address the underlying causes of the decline of traditional knowledge, innovations and practices*

13. Research should be undertaken on existing and new threats to the retention and use of traditional knowledge, innovations and practices.
14. Mechanisms to promote cooperation in order to address the cause of decline should be identified in cooperation with the Permanent Forum on Indigenous Issues of the United Nations and other relevant initiatives and organizations.

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<sup>31/</sup> The provisions contained in this recommendation relating to territories under sovereignty disputes recognized by the United Nations shall only be implemented with the consent of all Parties involved in the dispute.

15. Parties should be encouraged, in accordance with national domestic law and international obligations, to recognize land tenure of indigenous and local communities, as recognized rights and access to land are fundamental to the retention of traditional knowledge, innovations and practices.
16. Subject to national legislation and international obligations, Parties should be encouraged to pursue the fair and equitable resolution of land claims as an essential element of efforts to facilitate the retention and use of traditional knowledge, innovations and practices.
17. Indigenous and local communities should, where relevant, be actively involved in the management of protected areas.
18. The rights of indigenous and local communities should be given due respect when establishing new protected areas.
19. Parties should establish measures to ensure respect for the rights of unprotected or voluntarily isolated communities.
20. Restrictions on use of and access to sacred sites or otherwise culturally significant sites should be incorporated into appropriate local or national legislation, in consultation with and with full involvement of indigenous and local communities.
21. Legislation intended to protect, promote the use of traditional knowledge, innovations and practices should be consistent with the needs and views of indigenous and local communities, comprehensive and enforceable.
22. Parties should be encouraged to work with indigenous and local communities to develop measures and mechanisms to mitigate the consequences of actions arising from perverse incentives leading to the decline of traditional knowledge, innovations and practices of relevance for the conservation and sustainable use of biological diversity.
23. Parties should share their experiences with incentive measures as well as other mechanisms and measures to support the retention and use of traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity.
24. Mobilization of financial and technical resources should be promoted to support the design and implementation of mechanisms and measures to support retention of traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity.

*E. Capacity-building, education and training*

25. Parties, Governments and relevant organizations should be encouraged to facilitate strengthening existing indigenous organizational structures and organizations representing local communities.
26. Specific capacity-building activities should be targeted at indigenous women and women in rural or otherwise marginal communities, and at traditional knowledge, innovations and practices.

27. Where appropriate, traditional knowledge, innovations and practices should be integrated into formal, local, subnational or national systems of education, which are directed towards local or indigenous communities.
28. Education and training should be offered to indigenous and local communities with special attention to the future role of young people so as to enable sustainable development, while being compatible with their traditions.
29. Parties, Governments and relevant stakeholders should be encouraged to learn about traditional knowledge, innovations and practices of indigenous and local communities of relevance for the conservation and sustainable use of biological diversity and to incorporate it in decision-making processes.

***E. Draft Akwé: Kon <sup>32/</sup> Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities***

*The following draft decision is taken from recommendation 3/5 of the Ad Hoc Open-Ended Intersessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity (UNEP/CBD/COP/7/7, annex).*

*The Conference of the Parties*

1. *Endorses* the draft Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessments regarding Developments Proposed to Take Place on, or which are likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities, as contained in the annex to the present decision;

2. *Encourages* Parties and Governments to initiate a legal and institutional review of matters related to cultural, environmental and social impact assessment, with a view to exploring options for incorporation of these guidelines into national legislation, policies, and procedures, bearing in mind that nothing in these guidelines should adversely affect biodiversity and the livelihoods of other communities, and that they should be implemented in a manner that is consistent with international law and with other international obligations;

3. *Requests* Parties and Governments to use these guidelines, as appropriate, in conjunction with the guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or process and in strategic environmental assessment endorsed by the Conference of the Parties at its sixth meeting bearing in mind that nothing in these guidelines should adversely affect biodiversity and the livelihoods of other communities, and that they should be implemented in a manner that is consistent with international law and with other international obligations;

4. *Requests* the Executive Secretary to publish these guidelines as a booklet in the official languages of the United Nations, and *further invites* Parties and Governments, in collaboration with indigenous and local communities, to also make the guidelines available in local languages in relevant circumstances;

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<sup>32/</sup> Pronounced {agway-goo}. A holistic Mohawk term meaning “everything in creation” provided by the Kahnawake community located near Montreal, where the guidelines were negotiated.

5. *Also requests* Parties and Governments to conduct public education and awareness campaigns and develop strategies to ensure that relevant government departments and agencies, indigenous and local communities and their organizations, private sector developers, civil society organizations and potential stakeholders in developments, and the public at large, are made aware of the existence of these guidelines and the need for their application when developments are proposed to take place on sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities;

6. *Invites* intergovernmental organizations, Parties to intergovernmental agreements and civil society organizations active in development and biodiversity conservation, to take into consideration the guidelines for cultural, environmental and social impact assessment regarding developments proposed to take place on sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities;

7. *Requests* the Executive Secretary to continue to liaise with relevant international organizations, multilateral environmental agreements and processes on impact assessment with a view to developing or enhancing synergies between, and ensuring coherence of, assessment methodologies and guidelines;

8. *Invites* international funding and development agencies that provide funding and other forms of assistance to Governments to undertake developments, within the framework of bilateral and multilateral cooperation efforts, or to assist in the formulation of development policies, as well as policies, plans and guidelines for strategic environmental assessment, to take into consideration the need to incorporate and implement the guidelines within such developments and policies, and plans, guidelines and policies for strategic environmental assessment, and to provide funds, as appropriate, for the prevention and mitigation of negative impacts and risk factors of proposed projects and policies, such as, for example, the implementation of waste-management policies;

9. *Encourages* Parties and Governments, regarding developments proposed to take place on, or which are likely to impact on, sacred sites and land and waters traditionally occupied or used by indigenous and local communities, to:

(a) Promote the participation of indigenous and local communities in any bodies established by Governments at national, subnational and local levels, and in consultation with indigenous and local communities, in the assessment of proposed developments in which such communities have an interest;

(b) Take appropriate steps to ensure full transparency of the assessment process, including, but not limited to, the allocation of a sufficient amount of time to conduct a complete assessment of proposed developments prior to their implementation;

(c) Facilitate the exchange of information among relevant national agencies, developers, indigenous and local communities and all stakeholders on matters of relevance to the conduct of impact assessments of proposed developments;

(d) Provide, the necessary capacity and funding to ensure these measures can be put into effect, taking into account the views of indigenous and local communities as to their needs;

10. *Calls upon* Parties and Governments to support, financially and otherwise, indigenous and local communities, where they have not already done so, in formulating their own community development and biodiversity conservation plans that will enable such communities to adopt a culturally appropriate strategic, integrated and phased approach to their development needs in line with community goals and objectives. These plans should include a strategic environmental assessment policy or plan to

provide a systematic process with the participation of indigenous and/or local communities for integrating cultural, environmental, and social considerations in planning and decision-making;

11. *Also calls upon* the international community to provide the necessary means to Parties to assist in the formulation and development of strategic plans for the building or enhancement of the capacity of indigenous and local communities to conduct of cultural, environmental and social impact assessments, giving full recognition to community development and biodiversity conservation plans;

12. *Invites* indigenous and local communities to take note of the guidelines and to request their application in the case of developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities;

13. *Calls upon* Parties for full transparency when developments are proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities;

14. *Requests* Parties to include in their national reports information on practices, systems, mechanisms and experiences in the area of strategic environment assessment and cultural, environmental and social impact assessment and any measures adopted to formalize these guidelines in any policies, plans or programmes.

*Annex*

**DRAFT AKWÉ: KON VOLUNTARY GUIDELINES FOR THE CONDUCT OF  
CULTURAL, ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENTS  
REGARDING DEVELOPMENTS PROPOSED TO TAKE PLACE ON, OR WHICH  
ARE LIKELY TO IMPACT ON, SACRED SITES AND ON LANDS AND  
WATERS TRADITIONALLY OCCUPIED OR USED BY  
INDIGENOUS AND LOCAL COMMUNITIES**

**I. PURPOSE AND APPROACH**

1. The present Guidelines are voluntary and intended to serve as guidance for Parties and Governments, subject to their national legislation, in the development and implementation of their impact-assessment regimes. The guidelines should be taken into consideration whenever developments are proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities.

2. The objective of these Guidelines is to provide general advice on the incorporation of cultural, environmental, including biodiversity-related, and social considerations of indigenous and local communities into new or existing impact-assessment procedures, noting that some existing procedures may take these concerns into consideration in different ways. The Guidelines should be applied in conjunction with the guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or process and in strategic environmental assessment endorsed by the Conference of the Parties in paragraph 1 of decision VI/7 A, and contained in the annex to that decision.

3. More specifically, the purpose of these Guidelines is to provide a collaborative framework within which Governments, indigenous and local communities, decision makers and managers of developments can:

(a) Support the full and effective participation and involvement of indigenous and local communities in screening, scoping and development planning exercises;

(b) Properly take into account the cultural, environmental and social concerns and interests of indigenous and local communities, especially of women who often bear a disproportionately large share of negative development impacts;

(c) Take into account the traditional knowledge, innovations and practices of indigenous and local communities as part of environmental, social and cultural impact-assessment processes, with due regard to the ownership of and the need for the protection and safeguarding of traditional knowledge, innovations and practices;

(d) Promote the use of appropriate technologies;

(e) Identify and implement appropriate measures to prevent or mitigate any negative impacts of proposed developments;

(f) Take into consideration the interrelationships among cultural, environmental and social elements.

4. The Guidelines recognize that developments vary enormously in nature, scale and complexity with respect to such aspects as their scope, size and duration; strategic and economic importance; and the nature of impacts. The Guidelines therefore should be adapted to suit the appropriate circumstances of each development. Individual countries may redefine the steps in the cultural, environmental and social impact assessment procedure to their needs and requirements, taking into account the needs and concerns of indigenous and local communities and their national legislative, administrative and policy framework, bearing in mind that nothing in these Guidelines should adversely affect biodiversity and the livelihoods of other communities, and that they should be implemented in a manner that is consistent with international law and with other international obligations.

5. Cultural, environmental and social impact assessment procedures should refer to other relevant domestic legislation, regulations, guidelines and international and multilateral environmental agreements and protocols that have been ratified by the Party and have come into force, bearing in mind that nothing in these Guidelines should adversely affect biodiversity and the livelihoods of other communities, and that they should be implemented in a manner that is consistent with international law and with other international obligations.

## II. USE OF TERMS

6. For the purpose of the draft Guidelines:

(a) *Cultural impact assessment* – is a process of evaluating the likely impacts of a proposed development on the way of life of a particular group or community of people, with full involvement of this group or community of people and possibly undertaken by this group or community of people: a cultural impact assessment will generally address the impacts, both beneficial and adverse, of a proposed development that may affect, for example, the values, belief systems, customary laws, language(s), customs, economy, relationships with the local environment and particular species, social organization and traditions of the affected community;

(b) *Cultural heritage impact assessment* – is a process of evaluating the likely impacts, both beneficial and adverse, of a proposed development on the physical manifestations of a community's cultural heritage including sites, structures, and remains of archaeological, architectural, historical, religious, spiritual, cultural, ecological or aesthetic value or significance;

(c) *Customary law* – law consisting of customs that are accepted as legal requirements or obligatory rules of conduct; practices and beliefs that are so vital and intrinsic a part of a social and economic system that they are treated as if they were laws; <sup>33/</sup>

(d) *Environmental impact assessment* – is a process of evaluating the likely environmental impacts of, and proposing appropriate mitigation measures for, a proposed development, taking into account interrelated socio-economic, cultural and human health impacts, both beneficial and adverse;

(e) *Sacred site* – may refer to a site, object, structure, area or natural feature or area, held by national Governments or indigenous communities to be of particular importance in accordance with the customs of an indigenous or local community because of its religious and/or spiritual significance;

(f) *Social impact assessment* – is a process of evaluating the likely impacts, both beneficial and adverse, of a proposed development that may affect the rights, which have an economic, social, cultural, civic and political dimension, as well as the well-being, vitality and viability, of an affected community – that is, the quality of life of a community as measured in terms of various socio-economic indicators, such as income distribution, physical and social integrity and protection of individuals and communities, employment levels and opportunities, health and welfare, education, and availability and standards of housing and accommodation, infrastructure, services;

(g) *Strategic environmental assessment* – is a process of evaluating the likely environmental impacts of proposed policies, plans or programmes to ensure that they are fully included and addressed at an early stage of decision-making, together with economic, social and cultural considerations; <sup>34/</sup>

(h) *Traditional knowledge* – refers to the traditional knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.

### III. PROCEDURAL CONSIDERATIONS

7. Noting that the actors involved in the assessment process may include the proponent of the development, one or more governmental agencies, indigenous and local communities, stakeholders, and technical experts conducting the assessment; noting further the desirability of integrating cultural, environmental, and social impacts within a single assessment process, and taking into account the fundamental components of an environmental impact assessment as described in the guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or process and in strategic environmental assessment, an integrated assessment should involve the following stages:

- (a) *Preparatory stage:*
  - (i) Screening;
  - (ii) Scoping;
- (b) *Main stage:*
  - (i) Impact analysis and assessment;

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<sup>33/</sup> See definition contained in *Black's Law Dictionary* (7th edition), 2000.

<sup>34/</sup> Term derived from the definition contained in paragraph 1(b) of the *Guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or process and in strategic environmental assessment* contained in the annex to decision VI/7 A.

- (ii) Consideration of mitigation measures (including not proceeding with the development, finding alternatives which avoid the impacts, incorporating safeguards in the design of the development, or providing compensation – monetary and/or non-monetary – for adverse impacts);
  - (c) *Reporting and decision-making stage:*
    - (i) Reporting of the impact assessment study;
    - (ii) Review of the impact assessment study;
    - (iii) Decision-making; and
    - (iv) Devising management and monitoring plans, including roles and responsibilities, alternative proposals and mitigation requirements and conditions;
  - (d) *Monitoring and auditing stage:* Monitoring and environmental auditing.
8. As part of the above stages, the following steps may also be considered in carrying out an impact assessment for a development proposed to take place on, or which is likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities:
- (a) Notification and public consultation of the proposed development by the proponent;
  - (b) Identification of indigenous and local communities and relevant stakeholders likely to be affected by the proposed development;
  - (c) Establishment of effective mechanisms for indigenous and local community participation, including for the participation of women, the youth, the elderly and other vulnerable groups, in the impact assessment processes;
  - (d) Establishment of an agreed process for recording the views and concerns of the members of the indigenous or local community whose interests are likely to be impacted by a proposed development;
  - (e) Establishment of a process whereby local and indigenous communities may have the option to accept or oppose a proposed development that may impact on their community;
  - (f) Identification and provision of sufficient human, financial, technical and legal resources for effective indigenous and local community participation in all phases of impact assessment procedures;
  - (g) Establishment of an environmental management or monitoring plan (EMP), including contingency plans regarding possible adverse cultural, environmental and social impacts resulting from a proposed development;
  - (h) Identification of actors responsible for liability, redress, insurance and compensation;
  - (i) Conclusion, as appropriate, of agreements, or action plans, on mutually agreed terms, between the proponent of the proposed development and the affected indigenous and local communities, for the implementation of measures to prevent or mitigate any negative impacts of the proposed development;
  - (j) Establishment of a review and appeals process.

9. While the focus of environmental, cultural and social impact assessments is necessarily different, it is assumed, however, that the steps or phases for carrying out all three kinds of assessment will be the same for the most part. However, in the case of small-scale locally-based and initiated development, it may be possible to omit some of these steps.

***A. Notification and public consultation of proposed development by the proponent***

10. The proponent of a development proposal or the responsible government authority should engage in a process of notification and public consultation of intention to carry out a development. Such notification should use all normal public means of notification (print, electronic and personal media, including newspapers, radio, television, mailings, village/town meetings, etc.), take into account the situation of remote or isolated and largely non-literate communities, and ensure that such notification and consultation take place in the language(s) of the communities and region that will be affected. Such notification should clearly identify the proponent, contain a brief summary of the proposal, the sites and communities likely to be affected, anticipated impacts (if any) on the conservation and sustainable use of biological diversity, as well as possible cultural and social impacts, arrangements for public consultation, contact details, key dates in the life of the project, including those regarding impact assessment procedures, and identify obligations under national and subnational laws as well subregional, regional and international agreements.

11. The development proposal and impact assessment should be made available to organizations representing affected indigenous and local communities and relevant stakeholders for the purposes of public scrutiny and consultation. It should include all details relevant to the proposal. Notification and public consultation of the proposed development should allow for sufficient time to allow the affected indigenous or local community to prepare its response. An opportunity to present its response should be allowed for full and fair consideration by the proponent.

***B. Identification of indigenous and local communities and stakeholders likely to be affected by the proposed development***

12. In any development proposed to take place on, or likely to have an impact on, sacred sites and lands and waters traditionally occupied or used by them, indigenous and local communities should be invited to participate in and are to be accorded full respect at all stages of the assessment and development process, including planning and implementation;

13. A formal process to identify the indigenous and local community members, experts and organizations, and relevant stakeholders should be engaged, including local and open consultations. Once all parties have been identified, it is appropriate that a committee representative of the parties be formally established and its mandate defined to advise on the impact assessment processes, particularly in relation to screening and scoping phases, and for the establishment of any environmental management and monitoring plan, as well as cultural and social contingency plans. In establishing this committee, special consideration should be given to ensuring the adequate representation of indigenous and local communities.

***C. Establishment of mechanisms for indigenous and local community participation***

14. Affected indigenous and local communities should be invited to participate on any body appointed to advise on the screening and scoping phases or should be consulted on an impact assessment process for a development proposal, and should be involved in the establishment of the terms of reference for the conduct of the impact assessments, subject to national legislation. The screening and scoping phases should also take into account any community development plans and any mechanisms for strategic environmental assessment that have been formulated by an affected community.

15. In addition to representation on any body established to advise on the other impact assessment process phases, the full and effective participation and involvement of affected indigenous and local communities should contemplate using participatory models of community engagement during the conduct of the impact assessments, including in decision-making. The proponent should also provide regular feedback to the affected community throughout all stages of the impact assessment and development processes.

16. In order to facilitate the involvement and participation of the affected indigenous and local communities, local experts should be identified and their expertise recognized and engaged at the earliest opportunity.

***D. Establishment of an agreed process for recording the views and concerns of the members of the indigenous or local community whose interests are likely to be impacted by a proposed development***

17. The proponent and members of the affected indigenous or local community should establish a process by which community views and concerns can be properly recorded, as community members may not be in a position to attend public meetings because of, for example, remoteness of the community, or poor health. While written statements may be preferred, the views of the community members could also be recorded on video or audio tape, or any other appropriate way, subject to the consent of communities.

***E. Identification and provision of sufficient human, financial, technical and legal resources for effective indigenous and local community participation in all phases of impact assessment procedures***

18. Early identification by the State and affected indigenous and local communities and, as circumstances warrant, provision of necessary human, financial, technical and legal resources, particularly to those indigenous and local communities, to support indigenous and local expertise, will facilitate effective indigenous and local community participation in the impact assessment process. In general, the larger the proposed development, the greater and more widespread the potential impacts and therefore potentially greater are the requirements for support and capacity-building.

***F. Establishment of an environmental management or monitoring plan, including contingency plans regarding possible adverse cultural, environmental and social impacts resulting from a proposed development***

19. In order to maximize benefits and minimize adverse impacts, it will be necessary in most instances to establish an environmental management or monitoring plan to provide a framework within which the development can take place. Formulation of the environmental management or monitoring plan should be guided by an affected community's development plan and/or measures for strategic environmental assessment, where such plans exist, and should also include contingency plans for possible adverse cultural and social impacts.

***G. Identification of actors responsible for liability, redress, insurance and compensation***

20. In order to maintain the health, wellbeing and security of affected indigenous and local communities and the ecosystems that sustain them, and, to the extent that it is possible, in order to prevent adverse cultural, environmental and social impacts of any proposed developments, actors that should bear the responsibility for liability, redress, insurance and compensation should be clearly identified.

***H. Conclusion of agreements or action plans on mutually agreed terms between the proponents of the proposed development and the affected indigenous or local community***

21. In order to protect the interests of affected indigenous and local communities, an agreement, could be negotiated between the community and the proponent of the development. The terms of such an agreement, subject to national legislation and regulations, could cover the procedural aspects of impact assessments, including the option of a no-action alternative, setting out the rights, duties and responsibilities of all parties, and also address measures to prevent or mitigate any negative impacts of the proposed development.

***I. Establishment of a review and appeal process***

22. Parties, if they have not already done so, should seek to ensure the full participation of affected indigenous and local communities, in accordance with national legislation, in the decision-making process for of any development proposal, including the review and appeal process, taking into account methods of mediation and dispute resolution, which may include customary methods.

**IV. INTEGRATION OF CULTURAL, ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENTS AS A SINGLE PROCESS**

23. Bearing in mind the unique relationship between indigenous and local communities and the environment, the Guidelines allow for the consideration of the integration of cultural, environmental, social impact assessments as a single process. The conduct of impact assessments should meet the requirements of the Convention on Biological Diversity as defined in its Articles 14 and 8(j), and take into account the general principles guiding the programme of work on Article 8(j) and related provisions. The Guidelines should take into account work on integration of biodiversity issues into the environmental impact assessment and strategic impact assessment in accordance with Article 14 of the Convention, and give special attention to incorporating cultural and social considerations within any environmental impact assessment legislation or policies.

***A. Cultural impact assessments***

24. Through the cultural impact assessment process, and particularly during the screening and scoping phases, the issues that are of particular cultural concern should be identified, such as cultural heritage, religions, beliefs and sacred teachings, customary practices, forms of social organization, systems of natural resource use, including patterns of land use, places of cultural significance, economic valuation of cultural resources, sacred sites, ceremonies, languages, customary law systems, and political structures, roles and customs. The possible impacts on all aspects of culture, including sacred sites, should therefore be taken into consideration while developing cultural impact assessments.

25. Cultural heritage impact assessment is concerned with the likely impacts of a proposed development on the physical manifestations of a community's cultural heritage and is frequently subject to national heritage laws. A cultural heritage impact assessment will need to take into account, as the circumstances warrant, international, national and local heritage values.

26. In the event that sites or objects of potential heritage significance are uncovered during earthworks associated with a development, then all activities in and around the area of discovery should cease until a proper archaeological or heritage assessment has been completed.

27. In determining the scope of a cultural impact assessment, the following should be considered:

- (a) Possible impacts on continued customary use of biological resources;

/...

- (b) Possible impacts on the respect, preservation, protection and maintenance of traditional knowledge, innovations and practices;
- (c) Protocols;
- (d) Possible impacts on sacred sites and associated ritual or ceremonial activities;
- (e) Respect for the need for cultural privacy; and
- (f) Possible impacts on the exercise of customary laws.

1. *Possible impacts on continued customary use of biological resources*

28. The assessment should take the customary uses of biological resources that meet the requirements of the Convention, particularly in relation to Article 10(c), fully into consideration, as the diminution of the genetic diversity maintained and fostered by such customary use may lead to a loss of associated traditional knowledge, innovations and practices;

2. *Possible impacts on the respect, preservation, protection and maintenance of traditional knowledge, innovations and practices*

29. In the conduct of cultural impact assessments, due consideration should be given to the holders of traditional knowledge, innovations and practices and the knowledge itself. Customary laws governing ownership, access, control, use and dissemination of traditional knowledge, innovations and practices should be observed. Protocols with regard to indigenous and local communities should be followed with regard to the disclosure of secret and or sacred knowledge, including those that may involve public hearings and judicial processes in the courts. In the event of the disclosure of secret and or sacred knowledge, prior informed consent and proper protection measures should be ensured.

3. *Protocols*

30. As part of possible agreements or action plans to be concluded by the proponent of the development and the concerned communities, protocols could be established in order to facilitate the proper conduct of the development, and personnel associated with it, on sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities. Specific protocols may need to be established for particular kinds of development activity (for example, adventure tourism, mining) and may need to take into account the behaviour to be observed when visiting local communities, particular sites or when dealing with members of indigenous and local communities. Protocols should respect regulations already existing under relevant national, sub national or community self-government legislation.

4. *Possible impacts on sacred sites and associated ritual or ceremonial activities*

31. When developments are proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities, personnel associated with such developments should recognize that many sacred sites, and areas or places of other cultural significance may have important functions with respect to the conservation and sustainable use of biological diversity and, by extension, the maintenance of the natural resources upon which such communities rely for their well-being.

32. If it is necessary to assess the potential impact of a proposed development on a sacred site, the assessment process should also include the selection of an alternate site for development in consultation with the site custodians and the affected community as a whole. Where a sacred site is to be affected by a

proposed development, and in cases where no law exists to protect the site, the concerned indigenous and local community may wish to develop protocols regarding the site in the context of the proposed development.

5. *Respect for the need for cultural privacy*

33. Proponents of development and personnel associated with the development should respect the cultural sensitivities and needs of indigenous and local communities for privacy, especially with regard to important rituals and ceremonies such as those associated with rites-of-passage and death, and also ensure their activities do not interfere with the daily routines and other activities of such communities.

6. *Possible impacts on the exercise of customary laws*

34. Development proposals should be assessed for possible impacts on the customary laws of an affected community. If a development requires the introduction of an outside work-force, or requires changes in local customary systems (e.g. regarding land tenure, distribution of resources and benefits) conflicts may result. It may therefore be necessary to codify certain parts of customary law, clarify matters of jurisdiction, and negotiate ways to minimize breaches of local laws.

**B. *Environmental impact assessments***

35. In the conduct of the environmental component of an impact assessment regarding a development proposed to take place on, or which is likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities, the guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or process and in strategic environmental assessment, should be taken into account. National environmental impact assessment legislation and processes should respect existing inherent land and treaty rights as well as legally established rights of indigenous and local communities. As information gathering processes, environmental impact assessments can contribute to the protection of the rights of indigenous and local communities by recognizing the distinct activities, customs and beliefs of the affected indigenous and local communities.

36. The direct impacts of the development proposal on local biodiversity at the ecosystem, species and genetic levels should be assessed, and particularly in terms of those components of biological diversity that the affected indigenous or local community and its members rely upon for their livelihood, well-being, and other needs. Indirect impacts should be carefully assessed and monitored over the long term. The development proposal should be rigorously assessed with respect to the introduction of invasive species.

1. *Baseline studies*

37. In order to effectively undertake an environmental impact assessment for a proposed development, it is desirable to carry out a baseline study, in consultation with the affected indigenous and local communities, to ascertain those components of biological diversity of particular significance to the affected indigenous or local community. Detailed knowledge of biological resources (ecosystems, species and genetic diversity), including valuation of these resources, is essential to the protection of both biodiversity and cultural values. Such baseline study should include whether, for example, habitat types to be affected by the proposed development are represented elsewhere in existing conservation reserves (under national reserve systems), and whether particular crop species (and varieties) for food and agriculture are represented in *ex situ* collections. Baseline studies should collect information with respect to:

(a) Species inventories (including identification of particular species important to the affected indigenous or local community as food, medicine, fuel, fodder, construction, artefact production, clothing, and for religious and ceremonial purposes, etc);

(b) Identification of endangered species, species at risk, etc (possibly referenced to the World Conservation Union (IUCN) Red Data Book, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and national inventories);

(c) Identification of particularly significant habitat (as breeding/spawning grounds, remnant native vegetation, wild-life refuge areas including buffer zones and corridors, habitats and routes for migratory species) and crucial breeding seasons for endangered and critical species;

(d) Identification of areas of particular economic significance (as hunting areas and trapping sites, fishing grounds, gathering areas, grazing lands, timber harvesting sites and other harvesting areas);

(e) Identification of particularly significant physical features and other natural factors which provide for biodiversity and ecosystems (e.g. watercourses, springs, lakes, mines/quarries that supply local needs); and

(f) Identification of sites of religious, spiritual, ceremonial and sacred significance (such as sacred groves and totemic sites).

38. Consistent with principle 11 of the ecosystem approach, endorsed by the Conference of the Parties in paragraph 1 of decision V/6, traditional knowledge, innovations and practices should be considered an important and integral component of baseline studies, particularly the traditional knowledge, innovations and practices of those who have a long association with the particular area for which the development is proposed. Traditional knowledge, innovations and practices can be cross-referenced by old photographs, newspaper articles, known historical events, archaeological records, anthropological reports, and other records contained in archival collections.

### *C. Social impact assessments*

39. In order to effectively undertake a social impact assessment with respect to an indigenous or local community that is or is likely to be affected by a proposed development, the screening and scoping phases should take into account gender and demographic factors, housing and accommodation, employment, infrastructure and services, income and asset distribution, traditional systems and means of production, as well as educational needs, technical skills and financial implications.

40. Proposed developments should be evaluated in relation to tangible benefits to such communities, such as non-hazardous job creation, viable revenue from the levying of appropriate fees from beneficiaries of such developments, access to markets and diversification of income opportunities. Evaluation of changes to traditional economies could involve economic valuation of negative social impacts, such as crime and sexually transmitted diseases.

41. Developments involving changes to traditional practices for food production, or involving the introduction of commercial cultivation and harvesting of a particular wild species, should have those changes and introductions assessed.

42. In social impact assessments, social development indicators consistent with the views of indigenous and local communities should be developed and should include gender, generational considerations, health, safety, food and livelihood security aspects and the possible effects on social cohesion and mobilization.

43. In determining the scope of a social impact assessment, the following should be considered:
- (a) Baseline studies;
  - (b) Economic considerations;
  - (c) Possible impacts on traditional systems of land tenure and other uses of natural resources;
  - (d) Gender considerations;
  - (e) Generational considerations;
  - (f) Health and safety aspects;
  - (g) Effects on social cohesion;
  - (h) Traditional lifestyles; and
  - (i) The possible impact on access to biological resources for livelihoods.

*1. Baseline studies*

44. In the conduct of baseline studies, the following areas should, *inter alia*, be addressed:
- (a) Demographic factors (number and age structure of population, ethnic grouping, population distribution and movement - including seasonal movements);
  - (b) Housing and human settlements, including involuntary resettlement, expulsion of indigenous peoples from lands and involuntary sedentarization of mobile peoples;
  - (c) Health status of the community (particular health problems/issues - availability of clean water - infectious and endemic diseases, nutritional deficiencies, life expectancy, use of traditional medicine, etc);
  - (d) Levels of employment, areas of employment, skills (particularly traditional skills), education levels (including levels attained through informal and formal education processes), training, capacity-building requirements;
  - (e) Level of infrastructure and services (medical services, transport, waste disposal, water supply, social amenities (or lack of) for recreation, etc);
  - (f) Level and distribution of income (including traditional systems of distribution of goods and services based on reciprocity, barter and exchange);
  - (g) Asset distribution (e.g. land tenure arrangements, natural resource rights, ownership of other assets in terms of who has rights to income and other benefits);
  - (h) Traditional systems of production (food, medicine, artefacts), including gender roles in such systems; and
  - (i) Views of indigenous and local communities regarding their future and ways to bring about future aspirations

45. In particular, in relation to subsistence-based indigenous and local communities, the following additional social factors should also be taken into consideration, including impacts thereon:

- (a) Traditional non-monetary systems of exchange such as hunting, barter and other forms of trade, including labour exchange;
- (b) Related economic and social relations;
- (c) Importance of gender roles and relations;
- (d) Traditional responsibilities and concepts of equity and equality in society; and
- (e) Traditional systems of sharing natural resources, including resources that have been hunted, collected or harvested.

## 2. *Economic considerations*

46. Proposed developments on sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities should ensure that tangible benefits accrue to such communities, such as payment for environmental services, job creation within safe and hazard-free working environments, viable revenue from the levying of appropriate fees, access to markets and diversification of income-generating (economic) opportunities for small and medium-sized businesses. In accordance with national legislation or relevant national regulations, indigenous and local communities should be involved in the financial auditing processes of the developments in which they participate to ensure that the resources invested are used effectively.

## 3. *Possible impacts on traditional systems of land tenure and other uses of natural resources*

47. Developments that particularly involve changes to traditional practices for food production, or involve the introduction of commercial cultivation and harvesting of a particular wild species (e.g. to supply market demands for particular herbs, spices, medicinal plants, fish, fur or leather) may lead to pressures to restructure traditional systems of land tenure or expropriate land, and to pressures on the sustainable use of biological diversity, in order to accommodate new scales of production. The ramifications of these kinds of changes can be far-reaching and need to be properly assessed, taking into account the value systems of indigenous and local communities. Likely impacts associated with the cultivation and/or commercial harvesting of wild species should also be assessed and addressed.

## 4. *Gender considerations*

48. In social impact assessments, there is a particular need to examine the potential impacts of a proposed development on women in the affected community with due regard to their role as providers of food and nurturers of family, community decision-makers and heads of households, as well as custodians of biodiversity and holders of particular elements of (gender-specific) traditional knowledge, innovations and practices.

## 5. *Generational considerations*

49. In any social impact assessment, the potential impact of a proposed development on all generations within a community should be examined. Of particular concern are the impacts that may potentially interfere with opportunities for elders to pass on their knowledge to youth, or which might render certain skills and traditional knowledge, innovations and practices redundant.

6. *Health and safety aspects*

50. In the impact assessment process, the health and safety aspects of the proposed development should be scrutinized. Safety aspects should include such risks as physical injury during construction, and health risks resulting from various forms of pollution, sexual exploitation, social disturbance, disruption to habitats of medicinal species, and use of chemicals, such as pesticides. Foreign workers should be screened for any infectious diseases for which local populations may have no immunity, or for which there is no evidence of infection within their communities.

7. *Effects on social cohesion*

51. The impact assessment process should take into consideration the possible effects that a proposed development might have on the affected community and its people as a whole by ensuring that particular individuals or groups are not unjustly advantaged or disadvantaged to the detriment of the community as a result of the development.

**V. GENERAL CONSIDERATIONS**

52. The following general considerations should also be taken into account when carrying out an impact assessment for a development proposed to take place on, or which is likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities:

- (a) Prior informed consent of the affected indigenous and local communities;
- (b) Gender considerations;
- (c) Impact assessments and community development plans;
- (d) Legal considerations;
- (e) Ownership, protection and control of traditional knowledge, innovations and practices and technologies used in cultural, environmental and social impact assessment processes;
- (f) Mitigation and threat-abatement measures;
- (g) Need for transparency; and
- (h) Establishment of review and dispute resolution procedures.

**A. *Prior informed consent of the affected indigenous and local communities***

53. Where the national legal regime requires prior informed consent of indigenous and local communities, the assessment process should consider whether such prior informed consent has been obtained. Prior informed consent corresponding to various phases of the impact assessment process should consider the rights, knowledge, innovations and practices of indigenous and local communities; the use of appropriate language and process; the allocation of sufficient time and the provision of accurate, factual and legally correct information. Modifications to the initial development proposal will require the additional prior informed consent of the affected indigenous and local communities.

**B. *Gender considerations***

54. The vital role that women and youth play, in particular women and youth within indigenous and local communities, in the conservation and sustainable use of biological diversity and the need for the full

and effective participation of women in policy-making and implementation for biological diversity conservation should be fully taken into consideration.

**C. *Impact assessments and community development plans***

55. Indigenous and local communities should be encouraged, and provided with the necessary support and capacity to formulate their own community development plans. Such plans should include and should develop mechanisms for strategic environmental assessment that are commensurate with the goals and objectives of the development plans and appropriate poverty eradication programmes as defined by the indigenous and local communities.

56. Any developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities should maintain a balance between economic, social, cultural and environmental concerns, on the one hand, while, on the other hand, maximizing opportunities for the conservation and sustainable use of biological diversity, the access and equitable sharing of benefits and the recognition of traditional knowledge, innovations and practices in accordance with Article 8(j) of the Convention, and should seek to minimize risks to biological diversity. The cultural, environmental and social impact assessment processes should reflect this.

**D. *Legal considerations***

57. In any assessment procedure, subject to national legislation consistent with international obligations, Governments, their agencies and development proponents should take into account the rights of indigenous and local communities over lands and waters traditionally occupied or used by them and the associated biological diversity.

58. There is a need for clarification of legal responsibilities, particularly with regard to matters that may arise during the conduct of cultural, environmental and social impact assessments, including enforcement, liability and redress measures.

**E. *Ownership, protection and control of traditional knowledge, innovations and practices and technologies used in cultural, environmental and social impact assessment processes***

59. Consistent with the ecosystem approach, proponents of development proposals should recognize the importance of understanding and applying the values and knowledge, where relevant, of use of biological diversity held by indigenous and local communities and their application for sustainable development.

60. In all circumstances related to the proposed development, the customary laws and intellectual property rights of the indigenous and local communities with respect to their traditional knowledge, innovations and practices, should be respected. Such knowledge should only be used with the prior informed consent of the owners of that traditional knowledge. In order to safeguard their rights, indigenous and local communities should establish, or be assisted to establish, protocols consistent with relevant national legislation for access to and use of traditional knowledge, innovations and practices in the cultural, environmental and social impact assessment processes. Assistance in establishing such protocols should be provided if so requested.

**F. *Mitigation and threat-abatement measures***

61. In the context of impact assessments, and particularly with respect to mitigation measures associated with the development, where there is a threat of significant reduction or loss of biodiversity,

lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat.

### ***G. Need for transparency***

62. Transparency and public accountability should be maintained regarding the conduct of all phases of the cultural, environmental and social impact assessments, and in any decision-making processes, except in cases of national security and where confidentiality regarding the handling of secret/sacred traditional knowledge, innovations and practices is required. A clause on non-disclosure of information gathered through the impact assessment process of baseline studies related to traditional knowledge, innovations and practices should be ensured.

### ***H. Establishment of review and dispute resolution procedures***

63. In order to manage any disputes that may arise in relation to a development proposal and in the ensuing impact assessment processes, dispute resolution means or mechanisms should be available or be established.

## **VI. WAYS AND MEANS**

### ***A. Strengthening and rebuilding of capacity***

64. Any activity aimed at the incorporation of cultural and social considerations, and the biodiversity-related considerations of indigenous and local communities, into national environmental impact assessment systems should be accompanied by appropriate strengthening and rebuilding of capacities. Expertise in traditional knowledge, innovations and practices is required within the agencies responsible for impact assessment. At the same time, indigenous and local community expertise is required in impact assessment methodologies, techniques and procedures. Environmental impact assessments should include in the assessment team experts, including indigenous experts, in the traditional knowledge, innovations and practices related to the relevant ecosystems.

65. Training workshops on cultural, social and biodiversity-related aspects of environmental impact/strategic assessment and on economic valuation of cultural social and biodiversity resources for both assessment practitioners and representatives of indigenous and local communities would facilitate the emergence of a cross-cultural understanding of the issues.

66. Governments should encourage and support indigenous and local communities, where they have not already done so, to formulate their own community-development plans that will enable such communities to adopt a more culturally appropriate strategic, integrated and phased approach to their development needs in line with community goals and objectives. These plans should include a strategic environment assessment policy or aim to provide a systematic process for integrating social, environmental and cultural considerations in planning and decision-making, for the application of impact assessments to development proposals.

### ***B. Legislative authority***

67. If cultural, environmental and social impact assessment processes relevant to indigenous and local communities are made an integral part of environmental impact assessment and strategic environmental assessment procedures and incorporated into legislation, and the requirements for project/policy developers to find the most culturally, environmentally and socially sound, efficient options that avoid, reduce or mitigate adverse impacts are made explicit, this will prompt developers, at a very early stage, to use cultural, environmental and social impact assessment tools to improve the development process prior to the project application or consent stage or in some cases prior to screening procedures.

### ***C. Exchange of information***

68. Web-based resources, such as the clearing-house mechanism of the Convention on Biological Diversity and other means of exchanging experiences and information, including traditional means of communication, may help to raise awareness about best available methods and useful sources of information and experience concerning both the conduct and integration of cultural, social and biodiversity-related concerns of indigenous and local communities in environmental impact assessment processes and in strategic environmental assessment, and should be developed and used for the provision and exchange of information on environmental impact assessment.

69. Communication between assessment practitioners and indigenous and local community members with experience in cultural, environmental and social impact assessment is in urgent need of improvement and should be enhanced through workshops, case-study assessments and through the sharing of experiences through, for example, the focal point on Article 8(j) and related provisions of the clearing-house mechanism of the Convention on Biological Diversity.

### ***D. Resources***

70. Resources, including financial, technical and legal support, should be made available to indigenous and local communities and relevant national organizations to enable them to participate fully in all aspects of national impact assessments. This support may be provided by national Governments, where possible, or, in developing countries and countries with economies in transition, by appropriate donor agencies.

**F. Participatory mechanisms for indigenous and local communities**

*The following draft decision is taken from recommendation 3/6 of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity (UNEP/CBD/COP/7/7, annex).*

*The Conference of the Parties*

1. *Reiterates* its invitation, contained in paragraph 18 of decision V/16, to Parties and Governments to increase the participation of representatives of indigenous and local communities in official delegations to meetings held under the Convention and *urges* them to further enhance such participation;

2. *Requests* the Executive Secretary to compile information on the participation of indigenous and local communities in the Convention process, and in decision-making processes and the implementation of the Convention at the national level, making it available through the clearing-house mechanism;

3. *Requests* the Executive Secretary to incorporate practical measures to enhance the participation of indigenous and local communities, where appropriate, in the working groups of the Convention on Biological Diversity, Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties, in accordance with the rules of procedure, where appropriate;

4. *Requests* the Executive Secretary, in consultation with the Bureau of the Conference of the Parties, with regard to meetings held under the Convention, to consider the spacing of such meetings, particularly with regard to those of the Ad Hoc Working Group on Article 8(j) and Related Provisions, *vis-à-vis* meetings of the Open-ended Ad Hoc Working Group on Access and Benefit-sharing and of the Conference of the Parties, in order to allow sufficient time and opportunity for indigenous and local community representatives to contribute to and analyse documents prepared for such meetings, and to secure financial support for attendance;

5. *Requests* the Executive Secretary to continue to promote synergies between international environmental instruments, in particular through the joint liaison group of the secretariats of the Convention on Biological Diversity, the United Nations Convention to Combat Desertification and the United Nations Framework Convention on Climate Change on issues of relevance to Article 8(j) and related provisions of the Convention;

6. *Invites* Parties and Governments, in consultation with indigenous and local communities, where they have not already done so, to:

(a) Promote the effective participation of indigenous and local communities in the development of national mechanisms for participation in decision-making and implementation;

(b) Establish national, subregional and/or regional indigenous and local community biodiversity advisory committees, taking into account gender equity at all levels;

(c) Enhance the capacity of national institutions, governmental and civil organizations and organizations of indigenous and local communities to take into account the requirements of Article 8(j) and related provisions and to facilitate its implementation; and

(d) Build sufficient capacity to ensure that the national biodiversity focal point, in accordance with domestic law, is able to make information available to indigenous and local communities with regard to the circulation of documents and outcomes of meetings held under the Convention, with particular emphasis on providing the documents in appropriate and accessible languages of indigenous and local communities;

(e) Enhance the capacity of indigenous and local communities to collaborate with national research organizations and universities in order to identify research and training needs in relation to the conservation and sustainable use of biological diversity;

7. *Mindful* of the particular constraints of developing countries, in particular small island developing States amongst them, *urges* Parties, Governments and international organizations, when providing financial or other support for *in situ* conservation, in accordance with Article 8(m) and Article 20, paragraphs 2 and 3, of the Convention, to pay particular attention to the establishment and implementation of participatory mechanisms;

8. *Encourages* Parties and Governments to assist indigenous and local community organizations in their regions to hold regional meetings to discuss the outcomes of the decisions of the Conference of the Parties and to prepare for meetings under the Convention, in particular the meetings of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions and the Ad Hoc Open-ended Working Group on Access and Benefit-sharing;

9. *Invites* Parties to include information regarding the level of participation of indigenous and local communities in their national reports, as well as the measures and approaches used to encourage the participation of indigenous and local communities;

10. *Decides* to establish a voluntary funding mechanism under the Convention to facilitate the participation of indigenous and local communities[, in particular] from developing countries and countries with economies in transition and small island developing States in meetings under the Convention, including meetings of the indigenous and local community liaison group and relevant meetings of ad hoc technical expert groups. The funding mechanism for the participation of indigenous and local communities established herein shall operate according to criteria to be developed by the Conference of the Parties in consultation with indigenous and local communities and taking into account any United Nations practice in this field;

11. *Requests* the Executive Secretary to further develop the role of the thematic focal point on Article 8(j) and related provisions of the Convention under the clearing-house mechanism with a view to:

(a) Assisting national focal points, as appropriate and subject to available resources, to more effectively disseminate and make accessible Convention-related information to indigenous and local communities with particular emphasis on providing information in appropriate and accessible languages of indigenous and local communities;

(b) Assisting indigenous and local communities, as appropriate and subject to available resources, in the use of information and communication technologies through the organization of capacity-building and training workshops at the local, national, and subregional levels;

(c) Compiling information on existing networks, experts, tools, and resources relevant to meeting the needs of indigenous and local communities;

12. *Requests* the Executive Secretary, in consultation with indigenous and local communities, through the national focal points, to further assist in the development of communication networks and tools for use by indigenous and local communities, *inter alia*, by:

(a) Publishing information through the clearing-house mechanism toolkit on formats, protocols, and standards for use by indigenous and local communities and assist in the further development of communication networks;

(b) Publishing information through the clearing-house mechanism toolkit on electronic communication tools appropriate for use by indigenous and local communities;

(c) Making available through the thematic focal point electronic forums and other communication tools to promote the further development of communications networks by indigenous and local communities;

(d) Publishing information on network architecture and custodianship of data through the clearing-house mechanism toolkit to assist indigenous and local communities in the further development of communication networks by indigenous and local communities;

(e) Identifying other traditional, alternative and non-electronic communication tools to ensure full and effective participation in the communication network by indigenous and local communities.

**G. *Development of elements of sui generis systems for the protection of traditional knowledge, innovations and practices***

*The following draft decision is taken from recommendation 3/7 of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity (UNEP/CBD/COP/7/7, annex).*

*The Conference of the Parties*

1. *Requests* the Executive Secretary to continue gathering and analysing information on the issues set out in paragraphs 34 (b) to (e) of decision VI/10 and disseminate this information through the clearing house mechanism;

2. *Invites* Parties, Governments, indigenous and local communities, and relevant international organizations to communicate to the Executive Secretary any relevant information on existing indigenous, local, national and regional *sui generis* systems for the protection of traditional knowledge, innovations and practices relevant for the conservation and sustainable use of biological diversity and any relevant information on innovative policy, administrative and legislative measures that are supportive of customary law and practices;

3. *Requests* the Executive Secretary to compile information on issues identified in paragraph 2 above, and on the nature of customary laws and traditional protocols of indigenous and local communities relating to customary uses and the conservation and sustainable use of biological diversity, in cooperation with indigenous and local communities, for consideration by the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention;

4. *Requests* the Executive Secretary, based on submissions by Parties, Governments, indigenous and local communities and relevant international organizations, to develop, in cooperation

with the ongoing work on the use of terms in the Ad Hoc Open-ended Working Group on Access and Benefit-Sharing and in consultation with Parties, indigenous and local communities and relevant international organizations, a glossary of terms relevant to Article 8(j) and related provisions for the consideration by the fourth meeting of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention;

5. *Decides* on appropriate mechanisms for better cooperation between the Ad Hoc Open-ended Working Group on Access and Benefit-Sharing and the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention in order to ensure the participation and involvement of indigenous and local communities in the Ad Hoc Open-ended Working Group on Access and Benefit-Sharing;

6. *Requests* the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention, with the collaboration of relevant international organizations and bodies such as the United Nations Permanent Forum on Indigenous Issues to:

(a) Consider non-intellectual-property-based *sui generis* forms of protection of traditional knowledge, innovations and practices relevant for the conservation and sustainable use of biodiversity;

(b) Further develop elements for *sui generis* systems, listed in the annex to the present decision, for protection of traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity and ensure benefit-sharing arrangements for these communities when their traditional knowledge and associated genetic resources are accessed;

(c) Review the relevance and applicability of the Bonn Guidelines to the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention in accordance with decision VI/24 A of the Conference of the Parties;

(d) Review and, if appropriate, make recommendations regarding the international regime on access and benefit-sharing with a view to including *sui generis* systems and measures for the protection of traditional knowledge, innovations, and practices relevant for the conservation and sustainable use of biological diversity;

(e) Assess the role of databases and registers in the protection of traditional knowledge, innovations and practices relevant for the conservation and sustainable use of biological diversity;

(f) Explore, taking into account the work of the World Intellectual Property Organization and the United Nations Permanent Forum on Indigenous Issues, the potential of and conditions under which the use of existing as well as new forms of intellectual property rights can contribute to achieving the objectives of Article 8(j) and related provisions of the Convention;

7. *Invites* Parties and Governments to consider appropriate measures, with the full and effective participation of indigenous and local communities, to implement at local, national, subregional, regional and international levels *sui generis* systems and other new innovative mechanisms that ensure the protection of traditional knowledge, taking into consideration customary law and traditional practices;

8. *Requests* the Executive Secretary, with the cooperation of Parties, indigenous and local communities and relevant international organizations, to collect information on the role of databases and registers in the protection of traditional knowledge, innovations and practices relevant for the conservation and sustainable use of biological diversity;

9. *Invites* Parties, Governments and international organizations to strengthen the capacity of indigenous and local communities to protect, use, preserve, maintain and promote their traditional knowledge, innovations and practices relevant for the conservation and sustainable use of biological diversity;

10. *Invites* both Parties and indigenous and local communities to share national experiences amongst themselves on local and national approaches, as well as international approaches, for the protection of traditional knowledge and to consider the harmonization of approaches at the regional level;

11. *Invites* the World Intellectual Property Organization to make available to the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention, the results of its work on issues relevant to the implementation of Article 8(j) and related provisions of the Convention, in particular in relation to the protection of traditional knowledge and its recognition as prior art.

*Annex*

**SOME POTENTIAL DRAFT ELEMENTS TO BE CONSIDERED IN THE DEVELOPMENT OF *SUI GENERIS* SYSTEMS FOR THE PROTECTION OF TRADITIONAL KNOWLEDGE, INNOVATIONS AND PRACTICES OF INDIGENOUS AND LOCAL COMMUNITIES**

1. Statement of purpose, objectives and scope.
2. Clarity with regard to ownership of traditional knowledge associated with biological and genetic resources.
3. Set of relevant definitions.
4. Recognition of elements of customary law relevant to the conservation and sustainable use of biological diversity with respect to: (i) customary rights in indigenous/traditional/local knowledge; (ii) customary rights regarding biological resources; and (iii) customary procedures governing access to and consent to use traditional knowledge, biological and genetic resources.
5. A process and set of requirements governing prior informed consent, mutually agreed terms and equitable sharing of benefits with respect to traditional knowledge, innovations and practices associated with genetic resources and relevant for the conservation and sustainable use of biological diversity.
6. Rights of traditional knowledge holders and conditions for the grant of rights.
7. The rights conferred.
8. A system for the registration of indigenous/local knowledge./Systems for the protection and preservation of indigenous/local knowledge.
9. The competent authority to manage relevant procedural/administrative matters with regard to the protection of traditional knowledge and benefit-sharing arrangements.
10. Provisions regarding enforcement and remedies.
11. Relationship to other laws, including international law.

12. Extra-territorial protections.

**H. Recommendations of the Permanent Forum on Indigenous Issues to the Convention on Biological Diversity**

*The following draft decision is taken from recommendation 3/9 of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity (UNEP/CBD/COP/7/7, annex).*

*The Conference of the Parties*

1. *Welcomes* the increasing collaboration between the Convention process and the Permanent Forum on Indigenous Issues on matters pertaining to indigenous and local communities and their knowledge, innovations and practices relevant for the conservation and sustainable use of biological diversity;
2. *Requests* the Executive Secretary to contribute as appropriate to the preparation of the report of the Secretary General to the Forum on Indigenous Issues on the implementation of chapter 26 of Agenda 21 and other relevant chapters, such as chapters 36 and 15;
3. *Requests* the Executive Secretary to transmit to the Permanent Forum on Indigenous Issues at its third session the Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessments regarding Developments Proposed to Take Place on or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities;
4. *Further requests* the Executive Secretary to consult and coordinate with the Secretariat of the Forum and to collaborate with United Nations agencies and relevant international organizations with a view to organizing a workshop on cultural, environmental and social impact assessments based on the Akwé: Kon Voluntary Guidelines and aimed at the further strengthening of the understanding of the link between environment and cultural diversity, with the participation of representatives of indigenous and local communities, and *urges* Parties and Governments to provide financial resources in support of the organization of the workshop;
5. *Requests* the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions to develop elements of an ethical code of conduct to ensure respect for the cultural and intellectual heritage of indigenous and local communities relevant for the conservation and sustainable use of biological diversity, taking into account task 16 of the programme of work on Article 8(j) and related provisions.

**19.9. Liability and redress (Article 14, paragraph 2)**

*The following draft decision is proposed by the Executive Secretary.*

*The Conference of the Parties*

*Recalling its decision VI/11,*

*Taking note of the preparations by the Executive Secretary for the meeting of the group of legal and technical experts on liability and redress in the context of paragraph 2 of Article 14 of the Convention on Biological Diversity,*

1. *Renews its request* to the Executive Secretary contained in its decision VI/11, paragraph 1, to convene a group of legal and technical experts to discharge the mandate specified in that decision;
2. *Requests* the Executive Secretary to update the documentation prepared pursuant to decision VI/11, paragraph 2, and to make it available prior to convening the group of legal and technical experts; and,
3. *Urges* Parties and Governments to make the necessary voluntary financial contributions to facilitate the convening of the group of legal and technical experts.

### **19.10. Incentive measures (Article 11)**

*The following draft decision is taken from SBSTTA recommendation IX/9. It should be noted that in paragraph (a) of that recommendation, SBSTTA recommended that the Conference of the Parties should further consider, with a view to reviewing and endorsing, the proposals for the application of ways and means to remove or mitigate perverse incentives annexed to the draft decision.*

*The Conference of the Parties*

#### ***Proposals for the application of ways and means to remove or mitigate perverse incentives***

1. *Endorses* the proposals for the application of ways and means to remove or mitigate perverse incentives annexed to the present decision as a general framework to address the removal or mitigation of perverse incentives in different economic sectors and ecosystems;

2. *Decides*, having considered the proposals for the application of ways and means to remove or mitigate perverse incentives annexed to the present decision, that the proposals could be integrated into the implementation of the thematic programmes of work of the Convention, and that the experiences gained in the implementation of the thematic programmes of work on the removal or mitigation of perverse incentives should feed into the further elaboration of the proposals;

3. *Requests* the Executive Secretary, after their adoption by the Conference of Parties, to disseminate the proposals to other relevant international organizations and processes addressing perverse incentives as well as to other biodiversity related conventions, and *invites* these entities to further cooperation with the Convention on Biological Diversity on removing or mitigating perverse incentives;

4. *Invites* competent international organizations and agencies to provide technical and financial support to the efforts of Parties and Governments to apply these proposals with a view to removing or mitigating perverse incentives;

5. *Invites* Parties and Governments to use these proposals as guidance in their efforts to identify and remove or mitigate policies or practices that generate perverse incentives, and to extend their efforts to an examination of new policies with a view to identifying, and avoiding, potential perverse incentives;

6. *Invites* Parties and Governments to use these proposals as further guidance in implementing the draft Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity and, in particular, principles 2 and 3, which address incentive measures;

7. *Invites* Parties, Governments and relevant organizations to submit any information on the removal or mitigation of perverse incentives, including case-studies and best-practices on the application of ways and means as well as their experiences with the application of the proposals, to the Executive Secretary for dissemination through the clearing-house mechanism;

8. *Decides* that the progress made by Parties in removing or mitigating perverse incentives should be included in their national reports prepared in accordance with Article 26 of the Convention as appropriate;

#### ***Further implementation of the programme of work on incentive measures***

9. *Invites* Parties, Governments and international organizations to submit case-studies, best practices and other information on the use of positive incentive measures for the conservation and sustainable use of biodiversity and on the application of methodologies for the assessment of values of

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biodiversity and its functions, as well as other tools for prioritization in decision-making, to the Executive Secretary;

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

11. *Requests* the Executive Secretary to prepare, in cooperation with the World Bank Institute, the Organisation for Economic Co-operation and Development and other relevant international organizations, an analysis of existing and new instruments that provide positive incentives, their interaction with other policy measures and their effectiveness, including their requirements for successful application, possible limitations and shortcomings, and to develop proposals on the application of such positive incentive measures and their integration into relevant policies, programmes or strategies, for consideration by the Subsidiary Body for Scientific, Technical and Technological Advice at a meeting prior to the eighth meeting of the Conference of the Parties;

12. *Requests* the Executive Secretary to explore, in cooperation with the Millennium Ecosystem Assessment, the Organisation for Economic Co-operation and Development and relevant international organizations, existing methodologies for valuation of biodiversity and biodiversity resources and functions, as well as other tools for prioritization in decision-making, by preparing a compilation of existing valuation tools, including non-market methods, that provides an overview of the discussion on their methodological status, if appropriate, as well as an assessment of their applicability in terms of effectiveness and capacity preconditions, and to prepare proposals for the application of such tools. These proposals should include the identification of options to strengthen international collaborative partnerships for assessing biodiversity values, especially for the refinement and advancement of valuation tools.

#### *Annex*

### **PROPOSALS FOR THE APPLICATION OF WAYS AND MEANS TO REMOVE OR MITIGATE PERVERSE INCENTIVES**

#### ***A. General considerations***

1. For the purpose of these indicative guidelines, the term *policy* shall refer to a system of strategies, plans and programmes that spell out, *inter alia*, operational targets, and a related set of legal, administrative and/or economic tools that are implemented by national, sub-national and local governments to attain a set of underlying objectives. The term *practice* shall refer to any activity undertaken by individuals, communities, companies and organizations that is based on customary law, social norms or cultural traditions.

2. A *perverse incentive* emanates from policies or practices that encourage, either directly or indirectly, resource uses leading to the degradation and loss of biological diversity. The removal of such policies or practices or the mitigation of their perverse effects is therefore an important element in promoting the conservation and sustainable use of biological diversity.

3. Three phases are suggested in the process of removing such policies or practices or in mitigating their perverse effects on biological diversity, all of which should be implemented with stakeholder participation:

(a) The identification of policies or practices that generate perverse incentives and their impacts;

(b) The design and implementation of appropriate reforms;

(c) The monitoring, enforcement and evaluation of these reforms.

4. The following sections provide indicative guidance, corresponding to these three phases on the application of ways and means to remove policies or practices generating perverse incentives.

**B. Identification of policies or practices that generate perverse incentives**

*1. Principles for identifying policies and practices that generate perverse incentives*

5. *Review of policies and practices.* Not every single policy measure and, in particular, not every incentive measure, leads to adverse effects for biodiversity. A thorough study, critical review and evaluation of policies and practices potentially contributing to biodiversity loss, including the assessment of their impact on biodiversity as well as their effectiveness and efficiency, is therefore essential to identify properly and comprehensively any specific policies or practices and their interaction that are responsible for such decline. Indicator systems are an important means to inform such an analysis. Parties and governments should engage in the further development of such systems.

6. *Interaction between policies and practices, and with other root causes.* The study should take fully into account that the loss of biodiversity may be caused by a complex interaction of several root factors. Consequently, the identification of perverse incentives resulting from specific policies and practices is often difficult, as their extent may crucially depend on the design and degree of implementation and enforcement of other policies, and on other socio-economic root causes. The removal or mitigation of such policies and practices, although necessary, may not be sufficient to halt the loss of biodiversity if other macro-economic and sectoral policies and key socio-economic reasons remain unchanged.

7. *Identification of perverse practices.* Special analytical care is needed if practices are to be held accountable for any adverse impacts on biological diversity. Such practices are difficult to change as they are rooted in cultural traditions or customary law, which may have wider social values. Furthermore, perverse incentives may often be explained by an economically rational response to ill-adapted policies. The analysis should determine whether the promotion of cultural adaptation is appropriate or whether the reform of policies, or a combination of both, provides better opportunities for an effective policy intervention.

8. *Scope of perverse incentives.* In some instances, policies and practices may generate perverse incentives only under specific local conditions and socio-economic circumstances, while they may prove to be neutral or even favourable for biological diversity under other conditions and circumstances. The study should therefore seek to identify and quantify, whenever feasible and appropriate, the *scope* and *extent* to which such policies and practices adversely affect biodiversity, as this information is important for prioritization and for choosing the appropriate policy response.

9. *Differentiation of policy objectives, operational targets, and tools.* Policies that induce unsustainable behaviour are often designed to attain legitimate objectives. Biodiversity decline usually comes as an un-anticipated side-effect of such policies. In particular, subsidies have often been introduced for good and sound purposes. However, the operational targets of the policy and the tools that are used to attain these targets are not always appropriate to meet the proclaimed objectives. Furthermore, the policy objectives, even while initially good and sound, may no longer be valid. Once a specific policy is identified in generating perverse incentives, further analytical work should therefore differentiate the underlying objectives, operational targets and the specific policy tools used, in order to identify the appropriate entry point for policy reform.

10. *Identification of all relevant costs and benefits and their distribution.* The identification of all relevant costs and benefits from removing or mitigating policies or practices that generate perverse

incentive as well as their distribution within society and the economy is key for a well-informed policy choice. Hence, the assessment should not only include the direct, tangible costs and benefits, but also the intangible costs and benefits for society as a whole. The use of appropriate valuation tools should be considered if feasible. Furthermore, when assessing the merits of mitigation policies, the following cost components should also be taken into consideration: compliance costs, monitoring and enforcement costs, administrative costs and costs of change management.

11. *Identification of obstacles for policy reform.* The following elements should also be identified, as they are crucial for the design of implementable policy responses:

(a) Relevant obstacles for the removal of policies and practices generating perverse incentives, such as distributional issues, property rights, entrenched interests, cultural traditions, international considerations;

(b) Relevant obstacles for the implementation of policies that mitigate such perverse incentives, such as international obligations, lack of funds or lack of administrative and/or institutional capacity.

12. *Periodic policy evaluations.* The lack of evaluation of policy efficacy and efficiency contributes to the persistence of policies that create perverse incentives and do not assist in achieving what may still be legitimate policy objectives. Periodic quantitative policy evaluation, which includes biodiversity impacts, is desirable for various reasons: it provides criteria for the selection of the most desirable policy reform interventions, it assists in the identification of relevant stakeholders (winners and losers), creates political and evidentiary support for change of ineffective and perverse incentives, gives an indication of policy alternatives and provides an indication of the cost of removal of the perverse incentives. The establishment of periodic quantitative evaluation of the effectiveness of policy instruments and an assessment of any perverse incentives created by them would enable the development of win-win policy reforms. International organizations are highly requested to cooperate in this effort.

13. *Prioritization.* The analysis should enable prioritization of subsequent reforms to remove or mitigate perverse incentives, that is, it should enable to spell out which reforms to take up first, and which ones to take up later. Such a prioritization exercise should be based on a set of criteria, including the feasibility and ease of policy reform, the importance and extent of biodiversity degradation, and socio-economic concerns.

## 2. *Ways and means to identify policies and practices that generate perverse incentives*

14. *Strategic environmental assessment.* Elements of strategic environmental assessment (SEA) procedures could be used, if appropriate, as a means to identify policies and practices that generate perverse incentives. In this regard, the Guidelines for Incorporating Biodiversity-related Issues into Environmental Impact Assessment Legislation and/or Processes and in Strategic Environmental Assessment (decision VI/7, annex) could be taken into consideration. While mainly used for *proposed* policies, SEA procedures provide useful guidance on how to design and conduct research to identify perverse incentives for biodiversity conservation and sustainable use that emanate from *existing* policies. In particular, the following steps emerge as possible means of assessing policies and practices with regard to potential perverse incentives:

(a) Screening to determine which policies or practices require full or partial study with regard to possible perverse incentives;

(b) Scoping to identify which potential impacts on biological diversity are relevant to address, and to derive terms of reference for the actual study;

(c) The actual study to identify the perverse incentives for biodiversity conservation and sustainable use emanating from policies and practices, taking into account those impacts that result from the interaction of different policies and practices;

(d) The identification of possible action to remove or mitigate perverse incentives;

(e) The identification of possible reform obstacles;

(f) Pursuant to the design and implementation of reform policies, monitoring and evaluating the implementation of such reform policies, to ensure that unpredicted outcomes and failed mitigation measures are identified and addressed in a timely fashion.

15. *Stakeholder involvement.* The involvement of all stakeholders is an important element in identifying policies or practices that generate perverse incentives. The direct benefits of policies often go to well organized societal actors, while the costs of these policies, e.g., the loss of ecosystem services due to biodiversity decline, are borne by the wider public or by diffuse and/or powerless groups. Such groups, however, may be able to forward additional important information and to point to possible shortcomings in the conclusions of the assessment. It should therefore be ensured, through appropriate mechanisms of levelling the playing field for all stakeholders, that all groups are fully involved throughout the process. A balanced representation of stakeholders in the consultation will contribute to identifying properly and comprehensively both the benefits of individual policies and their possible shortcomings.

16. *Transparency.* Perverse incentives are often difficult to detect, because the negative impacts on biodiversity are usually an indirect by-product of policies aiming at other goals, and because they may result from an intricate interaction between different policies or practices. Ensuring that the process of assessing policies and practices is conducted in a transparent manner will contribute to ensure that all relevant stakeholders are well-informed about the process and its outcomes. This is an important pre-condition for effective stakeholder involvement.

17. *Capacity-building.* In developing countries and countries with economies in transition, lack of institutional and administrative capacity to design and conduct appropriate assessment studies is often a serious impediment to identifying policies and practices that generate perverse incentives. Capacity-building, supported by relevant national, regional and international organizations, is therefore an important prerequisite in successfully removing or mitigating policies and practices that generate perverse incentives. Funding should be ensured for capacity-building.

### **C. *Design and implementation of appropriate reforms***

#### *1. Guidelines for the choice of reforms*

18. *Possible political action.* The following is an indicative list of possible political action once specific policies and practices are identified as generating perverse incentives for the conservation and sustainable use of biological diversity, bearing in mind that, in some instances, several such activities need to be undertaken simultaneously, and also recalling that reforms of other macro-economic and sectoral policies may often be necessary to capture the full benefits of removing or mitigating perverse incentives and to halt the loss of biodiversity:

(a) Removal of the policy or practice;

(b) Removal of the policy and its replacement with another policy that attains the same objectives, but without or with fewer perverse impacts on biological diversity (re-instrumentation);

(c) In those cases where a policy or practice has overall negative impacts but some positive impacts, removal of that policy or practice and introduction of an additional policy that seeks to maintain the positive impacts;

(d) Removal of the policy or practice, combined with measures to overcome obstacles for policy reform;

(e) Introduction of policies that mitigate the perverse impacts on biodiversity of policies or practices, possibly including policies that address relevant obstacles.

19. The following paragraphs provide an indicative list of conditions for the selection of political action further to the identification of policies or practices that generate perverse incentives. Some conditions make reference to costs and/or benefits. It is important to note that the policy choice should be based not only on the direct, tangible costs and benefits, but also on an assessment of the intangible costs and benefits, including, for instance, benefits emanating from ecosystems services. Furthermore, the assessment should also include components such as compliance costs, monitoring and enforcement costs, administrative costs and the costs of change management, if appropriate. Maximizing the net social benefit, taking into account distributional objectives and effects at national and global levels, is the criterion for the choice of reform policies.

20. *Removal of policies that generate perverse incentives.* The removal of policies that generate perverse incentives could be considered when the following conditions are met:

(a) The analysis may reveal that a policy generating perverse incentives was introduced under circumstances that no longer prevail. As a consequence, the policy objectives may no longer be valid. For instance, the objective of providing support to companies whose sector undergoes a period of economic crisis would no longer be valid after the recovery or the successful restructuring of this sector;

(b) In other cases, the policy objective may still be valid. The analysis may show, however, that perverse incentives would be generated under any policy to attain this objective, that is, under any operational target and policy tool chosen. In such cases, the removal of the policy should be considered if the costs for society of effective mitigation policies would be higher than the net societal benefits foregone when the policy is removed.

21. *Removal of perverse practices.* The removal of practices that generate perverse incentives should be considered if a careful analysis of their interplay with formal policies reveals that such practices are indeed the appropriate target for reform policies. Such practices are difficult and costly to remove, because of the very fact that they are rooted in cultural traditions or customary law. Their removal should be considered if the cost of promoting cultural adaptation, through for instance appropriate awareness-raising and education programmes, is lower than the cost of effective mitigation policies. Furthermore, it has to be recalled that perverse incentives, apparently caused by specific practices, may often be explained by an economically rational response to ill-adapted policies. In those cases, the reform of these policies may often provide better opportunities for an effective policy intervention.

22. *Re-instrumentation.* In many cases, the underlying policy objective may still be valid and legitimate, and the perverse incentives emanating from the policy could be substantially lowered or avoided if other operational targets and tools would be used. In such instances, the removal of the policy and its replacement by a policy with fewer or no perverse impacts should be considered. Special care should be paid to identifying and implementing those operational targets and related tools that generate the least or no adverse impact on biological diversity.

23. *Removal and introduction of policies that maintain any positive impacts.* In some cases, policies and practices may generate perverse incentives under specific local conditions and socio-economic

circumstances, while they may even be favourable for biological diversity under other conditions and circumstances. In these cases, the removal of these policies and practices should still be envisaged if the overall effect on biological diversity is mainly negative. Additional, well-targeted policies could be introduced to maintain the positive impacts.

24. *Removal and overcoming of obstacles.* Substantial obstacles may sometimes hinder the removal of policies and practices. Additional policies to overcome such obstacles could be introduced if the associated costs are lower than the costs of effective mitigation. The choice of the appropriate policy would clearly depend on the relevant obstacle identified:

(a) *Distributional concerns.* In some cases, the removal of policies or practices may have adverse distributional consequences. The impact of reforms on food security and poverty should be of particular concern. A step-by-step approach to the reforms could be considered. Additional well-targeted income policies could also be implemented to compensate these adverse effects;

(b) *Legal issues.* In some cases, the removal of policies may impinge on the property rights of some stakeholders. Compensation of associated losses might be required;

(c) *Entrenched interests.* In most cases, some groups or individuals will lose as a result of the removal of policies or practices. Such groups or individuals will resist such reform. Additional policy measures may be warranted to overcome their resistance. Such measures may include awareness-raising and education programmes as well as measures to increase transparency for the wider public with regard to the adverse impact of policies and practices, thereby shifting the burden of proof to those groups opposing political reform. Compensatory policies for such stakeholders should only be considered as a last resort;

(d) *Lack of capacity.* In developing countries and countries with economies in transition, lack of institutional and administrative capacity is often a serious impediment to removing or mitigating perverse incentives. Capacity-building will be needed in these cases;

(e) *Cultural traditions.* The removal of practices generating perverse incentives is particularly difficult if they are deeply rooted in cultural beliefs, customs and traditions. Awareness-raising and education programmes can be appropriate means to overcome such obstacles;

(f) *International competitiveness.* Unilateral removal of policies that generate perverse incentives may create a risk that domestic industries lose competitiveness. Such risks become more important in a globalized world of increased international trade and capital flows. When evidence for such cases is compelling, international cooperation to remove such policies in a coordinated, synchronized way may be warranted;

(g) *Global benefits of removing perverse incentives.* In many cases, the benefits arising from a removal of policies that generate perverse incentives for the conservation and sustainable use of biodiversity are of a global nature, while the costs of removing such policies accrue at the national level. In such cases, international cooperation, including the extension of the activities of international financial compensatory mechanisms such as the Global Environment Facility (GEF), is warranted to cover the possible incremental national costs of generating global benefits.

25. *Mitigation.* If the removal of policies or practices is not feasible or too costly, the mitigation of their perverse effects on biodiversity, through appropriate means, may be warranted. More specifically, the introduction of such mitigation policies should be considered if:

(a) The cost for society of removing policies and practices, including forgone benefits, would be higher than the cost of effective mitigation policies;

(b) The cost for society of replacing the policy by a policy serving the same objective with less of no perverse impacts would be higher than the cost of effective mitigation policies;

(c) The cost for society of overcoming obstacles to the removal of policies and practices are higher than the cost of effective mitigation policies.

## 2. *Ways and means to remove or mitigate perverse incentives*

### **(a) *Important tools for removal and mitigation***

26. *National guidelines.* Guidelines that are adopted by competent national authorities will be an important indirect means to effectively remove or mitigate perverse incentives. Guidelines that are well adapted to national needs and circumstances may serve to structure and inform the national process of identifying as well as removing or mitigating policies and practices that generate perverse incentives. If made publicly available, they may serve as a benchmark against which the general public can gauge the effectiveness of the reform process.

27. *Stakeholder involvement.* The removal of policies or practices that generate perverse incentives is often opposed by influential groups or individuals that profit from these policies or practices. Even when it is not the stated objective of a policy to support such groups or individuals, its removal may be at risk because of their influence. In contrast, the costs of these policies, e.g., the loss of ecosystem services due to biodiversity decline, are borne by the wider public or by diffuse and/or powerless groups. The empowerment and involvement of such groups during the design and implementation phase, through appropriate mechanisms of levelling the playing field for all stakeholders, is therefore another important means to ensure that appropriate policy responses are implemented.

28. *Awareness-raising and education programmes.* The very fact that practices that generate perverse incentives are rooted in customary law, social norms or cultural traditions implies that considerable obstacles exist to their removal, obstacles that are beyond the immediate reach of formal policy-making. The more indirect approach of awareness-raising and education may therefore be a particularly important means in removing such practices. However, awareness-raising and education programmes will also be an important element in successfully removing policies or introducing mitigation policies, to overcome the resistance of powerful groups opposing their removal.

29. *Transparency.* Creating transparency with regard to the intermediate and final outcomes of the assessment study, that is, with regard the objectives, costs, and possible negative impacts of policies and practices will contribute to clarifying the implicit choices and priorities and will expose irresponsible policies and practices to the wider public. Transparency will therefore be an important element of a successful programme to raise awareness of these issues. As a consequence, it will also increase the political costs of irresponsible policies and generate political rewards for appropriate action.

30. *Capacity-building.* In developing countries and countries with economies in transition, lack of institutional and administrative capacity is often a serious impediment to removing or mitigating perverse incentives. While some policies that generate perverse incentives can, in principle, be easily removed, the removal of practices or the implementation of successful mitigation policies may require substantial institutional and administrative capacity. Capacity-building, supported by relevant national, regional and international organizations, is therefore a key precondition in successfully removing or mitigating policies and practices that generate perverse incentives for the conservation and sustainable use of biological diversity. Funding should be ensured for capacity-building.

31. *International cooperation.* International cooperation is a very important element in removing or mitigating perverse incentives as set out in paragraph 24 (f) and (g) above.

**(b) Ways and means for removal**

32. *Re-instrumentation.* In the case of legitimate and valid policy objectives, re-instrumentation, that is, the application of operational targets and related tools that attain the same objective with less or no adverse impacts on biological diversity, may often be a particularly effective way of removing policies that generate perverse incentives for the conservation and sustainable use of biodiversity.

33. *Compensatory policies.* The introduction of additional measures could be considered to compensate stakeholders that are negatively affected by the removal of policies that generate perverse incentives. Provided that funding is ensured, the use of compensatory policies could be considered in following cases:

(a) If the removal of policies will have an adverse effect on distributional objectives, a step-by-step approach to removing such policies could be taken, and additional, well targeted income policies could be implemented;

(b) If the removal of policies negatively affects the property rights of some stakeholders, the compensation of associated losses could also be envisaged;

(c) If the conditions spelled out under (a) and (b) above do not prevail, compensatory policies should only be used as a last resort.

**(c) Ways and means for mitigation**

34. *Regulation.* In some instances, the introduction of additional regulation may be an effective means to mitigate the perverse impacts on biodiversity, provided that a number of preconditions are met. Such preconditions include:

(a) The existence of well defined, comprehensive and measurable performance indicators;

(b) Manageable monitoring and enforcement costs;

(c) Regulations that can be designed in a comprehensive way so as to avoid adaptive behaviour of target groups, leading to secondary adverse effects on biological diversity.

35. *Overcoming obstacles to mitigation through regulation.* It should be borne in mind that the very obstacles that prevent the removal of policies may also impede the effective mitigation of their perverse effects. For instance, the incentive of target groups not to comply with the regulation may be especially high if the policy generating the perverse incentive remains in place unchanged. Therefore, awareness-raising, transparency and stakeholder involvement are important elements of effective regulatory policies to mitigate perverse incentives.

36. *Positive incentive measures.* The introduction of additional positive incentive measures is another possible means to mitigate the perverse impacts of some policies and practices. In addition to the preconditions enumerated in paragraph 34, a number of other caveats should be taken into consideration when using positive incentive measures:

(a) If policies having perverse impacts on biodiversity remain unchanged, the cost of using positive incentives for mitigating these impacts will be especially high, which, in turn, will impair the efficiency of using this instrument. Prior to using positive incentives, such policies should therefore be removed to the extent possible, through the means enumerated above;

(b) As explained in paragraph 23, policies and practices that generate perverse incentives in most circumstances may have a favourable impact on biological diversity in others. In such cases, the use

of positive incentive measures could be considered to mitigate the negative effect of removing these policies and practices;

(c) The careful design of the incentive measure, including the proper specification of eligibility conditions, is especially important in the case of positive incentive measures to avoid the generation of secondary adverse effects on biological diversity;

(d) In some cases, the strategic behaviour of rational recipients will impede the long-term effectiveness of positive incentive measures. In such cases, their use should be restricted to a transitional period of time through appropriate legal means such as sunset legislation;

(e) Lack of funds may limit the use of positive incentive measures;

(f) The use of positive incentive measures may have both negative and positive distributional consequences. These consequences need to be taken into consideration when using positive incentive measures.

37. *Negative incentive measures.* The use of negative incentive measures could also be considered to mitigate the perverse impacts of some policies and practices. In addition to the preconditions enumerated in paragraph 34 above, political resistance will often be especially severe if negative incentive measures are to be introduced. Therefore, awareness-raising, transparency and stakeholder involvement are key elements of a successful introduction of negative incentive measures to mitigate perverse incentives.

38. *Guidance on the use of incentive measures.* Further guidance with regard to the design and implementation of incentive measures is given in the proposals for the design and implementation of incentive measures, endorsed by the Conference of the Parties to the Convention on Biological Diversity at its sixth meeting (decision VI/15, annex I).

#### ***D. Monitoring, enforcement and evaluation of reforms***

39. *Stakeholder involvement.* Even after the design and implementation of reforms, relevant stakeholders should be involved in evaluation to ensure their feedback on unanticipated side-effects, failed mitigation measures and other shortcomings, and to ensure that such shortcomings are addressed in a timely fashion.

40. *Indicators and information systems.* It should be considered to introduce appropriate information systems in order to facilitate the process of monitoring and enforcing reforms. Furthermore, the development and application of sound indicators is a crucial precondition to the useful evaluation of reform policies.

41. *Success criteria for evaluation.* The evaluation of reforms should be based on a set of sound success criteria.

42. *Transparency.* Further dissemination of information can play a key role in building and maintaining public support for the reforms, and can thereby contribute to lower monitoring and enforcement costs for public authorities. Again, transparency may be a crucial precondition to ensuring effective stakeholder involvement in evaluating reforms.

43. *Capacity-building.* The ultimate success of the chosen reform is contingent upon successful monitoring, enforcement and evaluation of its impact, including unanticipated side-effects, failed mitigation measures and other shortcomings. It therefore depends on sufficient institutional and administrative capacity. Funding should be available for capacity-building.

**19.11. Access and benefit-sharing as related to genetic resources (Article 15)**

*The following draft decision is modelled on recommendation 2/1 of the Ad Hoc Working Group on Access and Benefit-sharing (UNEP/CBD/COP/7/6, annex).*

**A. Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising out of their Utilization**

*The Conference of the Parties,*

*Recalling* the evolutionary character of the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising out of their Utilization and the need to keep their implementation under review,

*Recognizing* that the Guidelines are making a useful contribution to the development of national regimes and contractual arrangements for access and benefit-sharing and to the implementation of the objectives of the Convention,

*Recognizing* further that some developing countries have encountered some constraints due to inadequate capacity to fully utilize the guidelines in the formulation of their national legislation of access and benefit sharing and related arrangements,

1. *Notes* the progress already accomplished and the need for further experience in the implementation of the Guidelines;
2. *Invites* Parties, Governments, indigenous and local communities and all relevant stakeholders to continue to promote the wide implementation of the voluntary Bonn Guidelines;
3. *Encourages* Parties, Governments, indigenous and local communities and all relevant stakeholders to further submit information on relevant experience and lessons learned, including successes and constraints, in the implementation of the Guidelines;
4. *Requests* the Executive Secretary to make this information available through appropriate means, including the clearing-house mechanism of the Convention.

**B. Use of terms, definitions and/or glossary, as appropriate**

*The following draft decision is taken from recommendation 2/2 of the Ad Hoc Working Group on Access and Benefit-sharing (UNEP/CBD/COP/7/6, annex).*

*The Conference of the Parties*

*Recalling* the voluntary nature of the Bonn Guidelines,

*Noting* that the terms as defined in Article 2 of the Convention shall apply to the Bonn Guidelines on Access and Benefit Sharing in accordance with paragraph 8 of the Bonn Guidelines,

*Noting* further that a number of other relevant terms not defined in the Convention may need to be examined,

*Bearing* in mind the difficulties faced by some developing countries with respect to information technology and related infrastructure,

1. *Invites* Parties, Governments, relevant organizations, indigenous and local communities, and all relevant stakeholders, according to a format provided by the Secretariat, to submit to the Executive Secretary:

(a) Information on existing national definitions or other relevant definitions of the following terms: access to genetic resources, benefit sharing, commercialization, derivatives, provider, user, stakeholder, *ex situ* collection, and voluntary nature (as contained in annex II of document UNEP/CBD/COP/6/INF/4);

(b) Views on whether additional terms need to be considered, such as arbitrary restrictions;

2. *Requests* access and benefit-sharing national focal points within Governments to facilitate the process of gathering and submitting relevant information to the Secretariat, taking into account the need to consult widely, including with indigenous and local communities;

3. *Requests* the Executive Secretary to gather and compile the information referred to above and distribute this information through available means, including through the clearing-house mechanism of the Convention;

4. *Requests* the Executive Secretary to submit this compilation to the next meeting of the Ad Hoc Open Ended Working Group on Access and Benefit-sharing for its consideration and *requests* the Working Group to further examine the issue of use of terms not defined in the Convention including the possible establishment of an expert group to determine the need for definitions or a glossary, and to report back to the Conference of the Parties.

### ***C. Other approaches, as set out in decision VI/24 B***

*The following draft decision is taken from recommendation 2/3 of the Ad Hoc Working Group on Access and Benefit-sharing (UNEP/CBD/COP/7/6, annex).*

#### *The Conference of the Parties*

*Recognizing* that a package of measures may be necessary to address the different needs of Parties, Governments, relevant organizations, indigenous and local communities and all relevant stakeholders in the implementation of access and benefit-sharing arrangements,

*Acknowledging* that existing other approaches could be considered to complement the Bonn Guidelines and are useful tools in assisting implementation of access and benefit-sharing provisions of the Convention,

*Stressing* the need to further examine other approaches set out in decision VI/24 B, and additional approaches such as interregional and bilateral arrangements as well as an international

certificate of legal provenance/origin/source, in particular the operational functionality and cost effectiveness of such an international certificate,

1. *Invites* Parties, Governments, relevant organizations, indigenous and local communities and all relevant stakeholders, to submit to the Secretariat their views and relevant information on additional approaches as well as regional, national and local experiences on existing approaches, including on codes of ethics;

2. *Requests* the Executive Secretary to further compile information on existing complementary measures and approaches, and experiences with their implementation, and to disseminate such information to Parties, Governments, relevant organizations, indigenous and local communities and all relevant stakeholders through, *inter alia*, the clearing-house mechanisms of the Convention;

3. *Requests* the Open-ended Working Group on Access and Benefit-sharing to further consider the issue of additional approaches, in a cost effective way at an appropriate time, and, to this end, *requests* the Executive Secretary to prepare a report on the basis of the submissions received.

**D. International regime on access to genetic resources and benefit-sharing**

*The following draft decision is taken from recommendation 2/4 of the Ad Hoc Working Group on Access and Benefit-sharing (UNEP/CBD/COP/7/6, annex).*

*The Conference of the Parties,*

*[Reaffirming that the fair and equitable sharing of the benefits arising out of the utilization of genetic resources is one of the objectives of the Convention on Biological Diversity, in accordance with Article 1 of the Convention],*

*[Reaffirming the sovereign rights of States over their natural resources and that the authority to determine access to genetic resources rests with the national Governments and is subject to national legislation, in accordance with Article 3 and Article 15, paragraph 1, of the Convention],*

*[Reaffirming the commitment of Parties in Article 15, paragraph 2 of the Convention to “endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention”],*

*Recalling paragraph 44 (o) of the Plan of Implementation of the World Summit on Sustainable Development, which calls for action to “negotiate within the framework of the Convention on Biological Diversity, bearing in mind the Bonn Guidelines, an international regime to promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of genetic resources”,*

*Further recalling resolution 57/260 of 20 December 2002, adopted by the United Nations General Assembly at its fifty-seventh session, inviting the Conference of the Parties to take appropriate steps with regard to the commitment made at the World Summit on Sustainable Development “to negotiate within the framework of the Convention on Biological Diversity, bearing in mind the Bonn Guidelines, an international regime to promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of genetic resources”,*

*Recalling the recommendation of the Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010 inviting the Ad Hoc Open-ended Working Group on Access and Benefit-sharing “to consider the process, nature, scope, elements and modalities of an international regime on access to genetic resources and benefit-sharing and to provide advice to the Conference of the Parties at its seventh meeting on this issue”,*

*Noting the Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, adopted at the sixth meeting of the Conference of the Parties, “as a useful first step of an evolutionary process in the implementation of relevant provisions of the Convention related to access to genetic resources and benefit-sharing”,*

*Recalling also paragraph 44 (n) of the Plan of Implementation of the World Summit on Sustainable Development which calls for action to promote the wide implementation of and continued work on the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits arising out of their Utilization, as an input to assist the Parties when developing and drafting legislative, administrative or policy measures on access and benefit-sharing as well as contract and other arrangements under mutually agreed terms for access and benefit-sharing”,*

*Recalling further the Millennium Development Goals and the potential role of access and benefit-sharing in poverty eradication and environmental sustainability,*

*Taking into account* Articles 8(j), 15, 16, 17, 18, 19, paragraphs 1 and 2, 20, 21 and 22 of the Convention on Biological Diversity,

*Reaffirming* the commitment by Parties, subject to national legislation, to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from their utilization,

*Noting* the work being carried out under the framework of the Convention by the Working Group on Article 8(j) and Related Provisions of the Convention,

[[*Mindful of* the work related to access to genetic resources and benefit-sharing carried out in other relevant international intergovernmental organizations,] [such as the Food and Agriculture Organization of the United Nations, the World Intellectual Property Organization, the World Trade Organization, and regional organizations and the need for mutual supportiveness,] [and recognizing that this work may form part of the international regime on access and benefit sharing];]

[*Recognizing also* the important contribution of international biodiversity related agreements, such as the FAO International Treaty for Plant Genetic Resources for Food and Agriculture, to access to genetic resources and benefit-sharing, ]

[*Recognizing* that Parties and stakeholders may be both users and providers of genetic resources],

[*Recognizing further* that the regime should be transparent, [practicable, non discriminatory], [expeditious] and flexible, and support generation of environmental, social, and economic benefits to both users and providers, as well as being supportive to national legislative, administrative and policy measures, [and mutually supportive with rights and obligations under other international and regional agreements,]]

[*Noting* that there is a need for further analysis of existing national, regional and international legal instruments and regimes relating to access and benefit-sharing and experience gained in their implementation, including gaps and their consequences,]

*Noting* that the Ad Hoc Open-ended Working Group on Access and Benefit-sharing has identified possible components of an international regime, without prejudging the outcome,

1. *Decides* to mandate the Ad Hoc Open-ended Working Group on Access and Benefit-sharing with the collaboration of the Ad Hoc Open ended Working Group on Article 8(j) and related provisions, [ensuring the participation of indigenous and local communities, non-governmental organizations, industry and scientific and academic institutions, as well as intergovernmental organizations,] to elaborate and negotiate an international regime on access to genetic resources and benefit-sharing [as soon as possible] [to support the implementation of the three objectives of the Convention] and [taking into account the 2010 target], [with the aim of adopting a legally binding instrument that would effectively protect and guarantee the rights of countries of origin of genetic resources];

2. [*Recommends* that the Ad Hoc Open-ended Working Group on Access and Benefit-sharing should operate in accordance with the following terms of reference:]

*or*

2. [Recommends that, within the framework of the Convention on Biological Diversity and taking into account the Bonn Guidelines and outcomes of the Working Group on Article 8(j) and Related Provisions, the elaboration and negotiation shall be based on an examination of the following possible features of the international regime on the basis of whether they (a) are currently part of existing instruments, (b) require further analysis and/or (c) needs strengthening (add 2 (c) (ii) to (xv)):]

(a) **[Process:** to analyse existing national, regional and international legal as well as administrative and policy instruments relating to access and benefit-sharing and experience gained in their implementation, including enforcement, [and monitoring of access contracts], as well as any gaps and their consequences];

(b) **[Nature:** The nature of the international regime could be determined on the basis of the following parameters] [*inter alia*]:

(i) [Legally-binding and/or non-binding];

(ii) [Support generation of social, cultural economic and environmental benefits to both users and providers];

(iii) [Supportive to national legislative, administrative and policy measures];

(iv) [Taking into account customary law and traditional cultural practices of indigenous and local communities];

(v) [Consistent with Article 22 of the Convention];

(vi) [Composed of one or more instruments within a set of principles, norms, rules and decision-making procedures];

(c) **Scope:** The international regime [could] [should], *inter alia*:

[(i) *Alternative 1* [Cover access to genetic resources and promote and safeguard fair and equitable sharing of benefits arising out of the utilization of genetic resources and [their products] [and derivatives]]];

*Alternative 2* [Facilitate access to genetic resources and promote and safeguard the fair and equitable sharing of the benefits arising out of the utilization of genetic resources and should cover genetic resources, [derivatives] and associated traditional knowledge, innovations and practices covered by the Convention on Biological Diversity and benefits arising from the commercial and other utilization of such resources, with the exclusion of human genetic resources];

(ii) Promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of traditional knowledge of indigenous and local communities relevant [to biological diversity] [conservation and sustainable use of biological diversity];

(d) **Elements:** The international regime could, [on the basis of the above mentioned gap analysis (paragraph 2 (a),] include the following elements, *inter alia*:

(i) [Relevant existing instruments and processes, including:

- Convention on Biological Diversity;

- Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization;
  - The International Treaty on Plant Genetic Resources for Food and Agriculture of the Food and Agriculture Organization of the United Nations;
  - The Commission on Genetic Resources for Food and Agriculture of the Food and Agriculture Organization of the United Nations;
  - Current national legislative, administrative and policy measures implementing Article 15 of the Convention on Biological Diversity;
  - Outcomes of Working Group on Article 8(j);
  - The Agreement on Trade-related Aspects of Intellectual Property Rights and other World Trade Organization agreements;
  - World Intellectual Property Organization [conventions and treaties] [agreements];
  - International Convention for the Protection of New Varieties of Plants;
  - Regional agreements,
  - Codes of conduct and other approaches developed by specific user groups or for specific genetic resources, including model contractual agreements; ]
- (ii) [To facilitate and] encourage collaborative scientific research, [including] [as well as] research for commercial purposes and commercialization, consistent with Articles 8(j), 10, 15, paragraph 6, paragraph 7 and Articles 16, 18 and 19 of the Convention;
- (iii) To ensure the fair and equitable sharing of benefits from the results of research and development and the benefits arising from the commercial and other utilization of genetic resources in accordance with Articles 15.7, 16, 19.1, 19.2. of the Convention;
- (iv) [Measures related to access and benefit-sharing which promote the achievement of the Millennium Development Goals, in particular on poverty eradication and environmental sustainability;]
- (v) [To facilitate the functioning of the regime at the local, national, subregional, regional and international levels, bearing in mind the transboundary nature of the distribution of some genetic resources and associated traditional knowledge;]
- [(vi) [Provisions] [Measures] to ensure compliance with [international law and] national legislations on access and benefit-sharing of [*inter alia*] countries of origin of genetic resources and associated traditional knowledge , including prior informed consent [( of [*inter alia*] countries of origin, provider countries and indigenous and local communities)] and mutually agreed terms;

- (vii) Further promotion of [providers] and [measures by countries with users under their jurisdiction] [non-distortive] [user measures];
- (viii) International certificate of origin/source of genetic resources and associated traditional knowledge/certificate of legal provenance/declaration of origin of genetic resources and associated traditional knowledge;

*Or*

[International certificate of legal provenance of genetic resources and associated traditional knowledge;]

- (ix) Disclosure of country of origin/source/legal provenance of genetic resources and [related] [associated] traditional knowledge in applications for intellectual property rights;

*Or*

[Disclosure of country of origin]]

- (x) Recognize and protect the rights of indigenous and local communities over their traditional knowledge associated to genetic resources subject to the national legislation of the countries where these communities are located;
- (xi) Capacity-building measures based on country needs;
- (xii) [Measures to ensure that the use of genetic resources, derivatives and associated traditional knowledge for bioprospecting purposes beyond the jurisdiction of countries of origin is in compliance with the Convention;]
- (xiii) Measures for benefit-sharing including, *inter alia*, monetary and non-monetary benefits, and effective technology transfer and cooperation so as to support the generation of social, economic and environmental benefits;
- (xiv) [[Code of ethics] [Code of conduct] [Models of prior informed consent] addressing fair and equitable sharing of benefits with indigenous and local communities;]
- (xv) Means to support the implementation of the international regime within the framework of the Convention;
- (xvi) [Monitoring, compliance and enforcement mechanisms];
- (xvii) [Dispute settlement mechanisms, and/or arbitration mechanisms];
- (xviii) Institutional issues to support the implementation of the international regime within the framework of the Convention;
- (xix) [And any other features that are determined to be necessary to achieve the objectives of the regime];

(e) **Modalities:** The timeframe, [the type of instruments] and other modalities to be decided by the Conference of the Parties at its seventh meeting;

3. *Decides* to mandate the Ad Hoc Open-Ended Working Group on Access and Benefit-sharing to negotiate and elaborate the international regime on access and benefit-sharing and request the Executive Secretary to make the necessary arrangements for the Open-ended Ad Hoc Working Group on Access and Benefit-sharing to be convened as soon as [possible, at least twice a year, at a minimum] [practicable];

4. [*Recommends* that the international regime be elaborated in collaboration with the Food and Agriculture Organization of the United Nations, the World Trade Organization, the World Intellectual Property Organization, the International Union for the Protection of New Varieties of Plants, and relevant regional agreements;]

5. [*Encourages* Parties, Governments, international organizations and all relevant stakeholders to provide the ways and means to allow for sufficient time to facilitate effective participation of indigenous and local communities in the development of an international regime;]

6. *Recommends* the promotion of the participation of all relevant stakeholders, including non-governmental organizations and the private sector, and indigenous and local communities.

**E. Measures, including consideration of their feasibility, practicality and costs, to support compliance with prior informed consent of the Contracting Party providing genetic resources and mutually agreed terms on which access was granted in Contracting Parties with users of such resources under their jurisdiction**

*The following draft decision is taken from recommendation 2/5 of the Ad Hoc Working Group on Access and Benefit-sharing (UNEP/CBD/COP/7/6, annex).*

*The Conference of the Parties,*

*Recalling* paragraph 8 of its decision VI/24 A,

*Recalling also* Article 8(j), Article 15, paragraphs 1, 3 and 7, Article 16, paragraph 3, and Article 19, paragraphs 1 and 2, of the Convention,

*Recalling further* paragraph 16 (d) of the Bonn Guidelines on Access to Genetic Resources and Equitable Sharing of Benefits Arising out of their Utilization, which identifies a number of measures that could be taken by Contracting Parties with users of genetic resources under their jurisdiction, to support compliance with prior informed consent of the Contracting Party providing such resources and with mutually agreed terms on which access was granted,

*Noting* that a number of Governments have taken initiatives at the national and regional levels to establish measures to support compliance with prior informed consent of the Contracting Parties providing such resources, including countries of origin, in accordance with Article 2 and Article 15, paragraph 3, of the Convention, and of the indigenous and local communities providing associated traditional knowledge, and with mutually agreed terms on which access was granted,

*Noting further* the ongoing activities and processes in relevant international forums such as the World Intellectual Property Organization, the TRIPs Council of the World Trade Organization, and the Commission on Plant Genetic Resources for Food and Agriculture of the Food and Agriculture Organization of the United Nations acting as the Interim Committee for the International Treaty on Plant and Genetic Resources for Food and Agriculture, regarding measures to support compliance with prior informed consent,

*Aware* that further work is required on a number of issues, including analysis of: (i) specific measures to support compliance, in accordance with the sovereign rights of the country of origin of genetic resources, with the prior informed consent of the Contracting Parties providing such resources, including countries of origin, in accordance with Article 2 and Article 15, paragraph 3, of the Convention, and of the indigenous and local communities providing associated traditional knowledge; (ii) compliance measures existing in national laws; (iii) the extent and level of unauthorized access and misappropriation of genetic resources and traditional knowledge; and (iv) availability of remedies in user countries relating to non-compliance,

*Recognizing* that a number of critical issues, such as an international certificate of [origin/source/legal provenance], and disclosure of origin of genetic resources and associated traditional knowledge, need to be addressed to support compliance with national legislation of countries of origin and prior informed consent of the Contracting Parties providing such resources, including countries of origin, in accordance with Article 2 and Article 15, paragraph 3, of the Convention, and of the indigenous

and local communities providing associated traditional knowledge, and with mutually agreed terms on which access was granted,

*Recognizing further* the need to ensure transparency in the international exchange of genetic resources and associated traditional knowledge,

*Recalling* paragraph 35 of decision VI/20 in which the Conference of the Parties recognized the leading role of the Convention on Biological Diversity in international biological diversity issues,

[*Noting in particular* the decision of the World Intellectual Property Organization General Assembly to extend the mandate of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, instructing it to focus on the international dimension of the issues, and urging it to accelerate its work,]

*Noting with appreciation* the Technical Study on Disclosure Requirements Concerning Genetic Resources and Traditional Knowledge prepared by World Intellectual Property Organization at the request of the Conference of the Parties in decision VI/24 C and considering the contents of the Technical Study to be helpful in the consideration of intellectual property-related aspects of user measures,

1. *Takes note* of ongoing initiatives at national, regional and international levels regarding measures to support compliance with national legislation, including prior informed consent of the Contracting Parties providing such resources, including countries of origin, in accordance with Article 2 and Article 15, paragraph 3, of the Convention, and of the indigenous and local communities providing associated traditional knowledge, and with mutually agreed terms on which access was granted;

2. *Invites* Parties and Governments to continue taking appropriate and practical measures to support compliance with prior informed consent of the Contracting Parties providing such resources, including countries of origin, in accordance with Article 2 and Article 15, paragraph 3, of the Convention, and of the indigenous and local communities providing associated traditional knowledge, and with mutually agreed terms on which access was granted. Such measures may include:

(a) Exchange of information between users and providers regarding legislative, administrative and policy measures existing in their jurisdiction relating to access and benefit-sharing;

(b) Incentive measures, as referred to in paragraph 51 of the Bonn Guidelines, to encourage users to comply with national legislation, including prior informed consent and mutually agreed terms, such as publicly sponsored research grants and voluntary certification schemes;

(c) Development of model/standard contractual agreements for different user groups and different genetic resources;

(d) Aspects related to the import and export of genetic resources, including regulations when feasible and as appropriate;

(e) Easy access to justice in cases of violation of legal provisions in provider and user countries;

(f) Administrative and judicial remedies, including penalties and compensation as provided by national laws;

(g) Monitoring;

3. *Invites* Parties to recognize that traditional knowledge, whether written or oral, may constitute prior art;

4. *Invites* Parties to establish national mechanisms to ensure compliance, when required by domestic law, with the obtaining of prior informed consent of indigenous and local communities regarding access to genetic resources and associated traditional knowledge;

5. *Invites* Parties to put in place mechanisms to ensure fair and equitable benefit-sharing at the national level with relevant stakeholders and indigenous and local communities;

6. *Requests* the Ad Hoc Open-ended Working Group on Access and Benefit-Sharing to address issues related to an international certificate of [origin/source/legal provenance], taking into account multilateral approaches to access to genetic resources and benefit-sharing, including issues such as feasibility, practicality and costs;

[7. *Requests* the Ad hoc Open-ended Working Group on Access and Benefit-Sharing to identify issues related to the disclosure of origin of genetic resources and associated traditional knowledge in applications for intellectual property rights, including those raised by a proposed international certificate of [origin/source/legal provenance], and transmit the results of this examination to the World Intellectual Property Organization Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, and the Working Group on the Reform of the Patent Cooperation Treaty and other relevant forums;]

[8. *Invites* the World Intellectual Property Organization to address measures regarding the interrelation of access to genetic resources and disclosure requirements in intellectual property rights applications, while recognizing the leading role of the Convention on Biological Diversity in international biological diversity issues, in particular the intellectual property-related issues raised by a proposed international certificate of [origin/source/legal provenance], as part of the accelerated work under the renewed mandate of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, including:

(a) Options for model provisions on proposed disclosure requirements;

(b) Practical options for patent application procedures with regard to the triggers of disclosure requirements;

(c) Options for incentive measures for applicants;

(d) Identification of the implications for the functioning of disclosure requirements in various World Intellectual Property Organization-administered treaties;

[9. *Further invites* the World Intellectual Property Organization to prepare a report for submission to Conference of the Parties at its eighth meeting on the progress of this work, taking into account, in particular, any issues that may be identified in the Ad Hoc Open-ended Working Group on Access and Benefit-Sharing in the interim;]

10. *Requests* the Executive Secretary to gather information, with the assistance of Parties, Governments and relevant international organizations, and undertake further analysis relating to:

(a) Specific measures to support and ensure compliance with national legislation, prior informed consent of the Contracting Parties providing such resources, including countries of origin, in

accordance with Article 2 and Article 15, paragraph 3, of the Convention, and of the indigenous and local communities providing associated traditional knowledge, and with mutually agreed terms on which access was granted;

(b) Existing measures to support compliance with national, regional, and international legal instruments;

(c) The extent and level of unauthorized access and misappropriation of genetic resources and associated traditional knowledge;

(d) Access and benefit-sharing arrangements existing in specific sectors;

(e) Administrative and judicial remedies available in countries with users under their jurisdiction and in international agreements regarding non-compliance with the prior informed consent requirements and mutually agreed terms;

(f) Existing practices and trends with regard to commercial and other utilization of genetic resources and the generation of benefits;

(g) Measures that preserve and promote legal certainty for users over the terms and conditions of access and use;

and prepare a compilation of the information received and make this compilation available for the consideration of the Ad Hoc Open-ended Working Group on Access and Benefit-sharing at its third meeting;

11. *Requests* the Ad Hoc Open-ended Working Group on Access and Benefit-sharing to analyse the compilation prepared by the Executive Secretary in accordance with the preceding paragraph, and recommend to the Conference of the Parties at its eighth meeting further measures to support and ensure compliance with prior informed consent of the Contracting Parties providing such resources, including countries of origin, in accordance with Article 2 and Article 15, paragraph 3, of the Convention, and of the indigenous and local communities providing associated traditional knowledge, and with mutually agreed terms on which access was granted.

**F. Needs for capacity-building identified by countries to implement the Bonn Guidelines**

*The following draft decision is taken from subparagraphs (a), (d)-(f) and (h)-(j) of recommendation 2/6 of the Ad Hoc Working Group on Access and Benefit-sharing (UNEP/CBD/COP/7/6, annex). In paragraphs (b) and (c) of that recommendation, the Ad Hoc Working Group recommended that **the Conference of the Parties further reviews, with a view to adopting, the draft Action Plan on Capacity-building for Access to Genetic Resources and Benefit-sharing (annexed to the draft decision for ease of reference), taking into consideration the following specific elements:***

- (a) Identification of responsibilities, needs and contributions of the various key actors;*
- (b) The Action Plan is to be implemented in accordance with the national legislation of the countries where the activities in relation with the draft Action Plan will take place;*
- (c) Concerns of Parties and indigenous and local communities with regard to inventories of traditional knowledge undertaken without their approval and involvement;*
- (d) In cases where indigenous and local communities are to be involved in capacity-building activities relating to assessment and monitoring of genetic resources and associated traditional knowledge, such activities need to be undertaken with the prior approval of these communities;*
- (e) Specific capacities to negotiate material transfer agreements, including capacities and skills for indigenous and local communities to negotiate mutually agreed terms;*
- (f) Capacity-building for the transfer and adaptation of relevant technologies as well as cooperation;*
- (g) Mechanisms for technical support to build national capacities and to share available technology experience;*
- (h) Means for the implementation of the Action Plan, including funding;*
- (i) Coordination with other relevant programmes and action plans such as pertinent activities of the United Nations Development Programme and the Food and Agriculture Organization of the United Nations, such as the Leipzig Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture;*
- (j) Capacity-building to identify opportunities for benefits that enhance and promote biodiversity conservation and the development of new and existing sustainable uses of biodiversity.*

In subparagraph (g) of the recommendation, the Ad Hoc Working Group recommended that **the Conference of the Parties should consider, in cooperation with the Global Environment Facility, further ways and means of involving multilateral institutions, regional banks and other relevant funding bodies in the work of the Convention and in the efforts of Parties in its implementation, particularly with respect to capacity development for access and benefit-sharing.**

*The Conference of the Parties*

*Recalling* decision VI/24 A, paragraph 8, in which the Conference of the Parties requested, the Ad Hoc Open-ended Working Group on Access and Benefit-Sharing to advise the Conference of the Parties on needs for capacity-building identified by countries to implement the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising out of their Utilization,

*Mindful* that capacity-building activities related to access and benefit-sharing are a crucial element in achieving the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, as well as the other two objectives of the Convention and the target to significantly reduce the rate of biodiversity loss by 2010,

*Having considered* the draft Action Plan on Capacity-building for Access to Genetic Resources and Benefit-sharing developed by the Open-ended Expert Workshop on Capacity-building for Access to Genetic Resources and Benefit-sharing further to decision VI/24 B, paragraph 1,

*Having considered* the work done during the ninth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, held in Montreal from 10 to 14 November 2003, in preparing a programme of work on technology transfer and cooperation for consideration by the Conference of the Parties at its seventh meeting,

*Recognizing* that the draft Action Plan represents an important framework for the identification of capacity needs, priority areas requiring capacity-building, sources of funding and implementation of the identified needs and priorities,

*Underlining* that capacity-building should be a flexible, demand- and country-driven process requiring international and regional cooperation, as appropriate, involving indigenous and local communities as well as all relevant stakeholders,

*Underlining also* that the implementation of an international regime on access and benefit sharing and of national legislation on access and benefit-sharing could require additional activities to build capacity,

1. *Takes note with appreciation* of the report of the Open-ended Expert Workshop on Capacity-building for Access to Genetic Resources and Benefit sharing and its work;

2. *Invites* Parties and Governments to use the Action Plan when designing and implementing national, regional and subregional plans and strategies to build capacities for access and benefit-sharing of genetic resources and related traditional knowledge;

3. *Reiterates* its guidance to the Global Environment Facility, as the institutional structure operating the financial mechanism of the Convention, to provide financial resources for country-driven projects based on national priorities that assist with the implementation of the Action Plan in support of the implementation of the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising out of their Utilization, including capacity-building regarding the transfer of technologies which enables providers to fully appreciate and actively participate in benefit-sharing arrangements at the stage of granting access permits;

4. *Urges* Parties and relevant organizations to provide financial and technical assistance to support developing countries, in particular, least developed countries, small island developing States, as well as countries with economies in transition, in implementing the Action Plan and the resulting national, regional and subregional plans and strategies;

5. *Encourages* Parties and Governments to provide for the full and effective involvement and participation of indigenous and local communities and all relevant stakeholders in the development and implementation of national capacity-building plans and strategies;

6. *Requests* Parties and Governments to make information available through the clearing-house mechanism and to include information in national reports regarding their implementation of capacity-building measures on access to genetic resources and related traditional knowledge, and benefit-sharing;

7. *Requests* the Executive Secretary to facilitate, including through the clearing-house mechanism, the sharing of relevant information among donor Parties and organizations to assist coordination, reduce duplication and identify gaps relevant to the implementation of the Action Plan.

*Annex 35/*

## **DRAFT ACTION PLAN ON CAPACITY-BUILDING FOR ACCESS TO GENETIC RESOURCES AND BENEFIT-SHARING**

### ***A. Objective of the Action Plan***

1. The objective of the Action Plan is to facilitate and support the development and strengthening of capacities of individuals, institutions and communities for the effective implementation of the provisions of the Convention relating to access to genetic resources and benefit-sharing, and in particular the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising Out of their Utilization, taking into account their voluntary nature. The implementation of the Action Plan at the local, national, subregional, regional and international levels should involve indigenous and local communities and all relevant stakeholders.

2. Capacity-building for access and benefit-sharing constitutes an integral part of efforts to build the capacities of Parties to manage and develop their genetic resources and should contribute to the conservation and sustainable use of biological diversity.

3. To achieve the objective, the Action Plan will provide a framework for identifying country, indigenous and local community and all relevant stakeholder needs, priorities, mechanisms of implementation and sources of funding.

### ***B. Key areas requiring capacity-building***

4. Key areas that require capacity-building initiatives should be considered in a flexible and transparent manner, based on a country-driven approach. This approach will take into account the different situations, needs, capabilities and stages of development of each country, as well as the different types of genetic resources and their respective characteristics, and will promote synergies between different initiatives related to capacity-building.

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<sup>35/</sup> As contained in annex I to the report of the Open-ended Expert Workshop on Capacity-building for Access to Genetic Resources and Benefit-sharing (UNEP/CBD/ABS/EW-CB/1/3).

5. Capacities should be strengthened at the systemic, institutional and individual levels in the following key areas:

- (a) Institutional capacity-building:
  - (i) Policy, legislative and regulatory frameworks;
  - (ii) Administrative framework;
  - (iii) Funding and resource management;
  - (iv) Mechanisms for follow-up, monitoring and assessment;
- (b) Assessment, inventory and monitoring of genetic resources, and traditional knowledge including taxonomic capacity, *inter alia*, within the context of the Global Taxonomy Initiative, and of *in situ* and *ex situ* conservation activities;
- (c) The capacity of indigenous and local communities to assess, inventory and monitor genetic resources and related traditional knowledge, with their approval and consent, using the Global Taxonomy Initiative and other relevant initiatives;
- (d) Bioprospecting, screening, DNA sequencing, characterization, product development and marketing;
- (e) Environmental, cultural, social and economic valuation of genetic resources, and associated traditional knowledge, innovations and practices, and market information, including sector-relevant production and marketing strategies;
- (f) Development by Contracting Parties with users of genetic resources under their jurisdiction of appropriate legal, administrative, or policy measures, as appropriate, to support compliance with prior informed consent of the Contracting Party providing such genetic resources and mutually agreed terms on which access was granted;
- (g) Inventory and case-studies of existing policy and legislative measures, and the development of appropriate policies and legislation.
- (h) Development of legislative, administrative and policy mechanisms for the protection of genetic resources and related traditional knowledge including, *inter alia*, the development of *sui generis* systems, the promotion of existing forms of protection of intellectual property rights and the support for community-based approaches of indigenous and local communities;
- (i) Development of national, regional, subregional and international information systems, and national, regional, subregional and international information management and exchange, linked with the clearing-house mechanism of the Convention;
- (j) Development and strengthening of the capacities of indigenous and local communities for participation in decision-making, policy formulation and implementation and for conservation, management and product development with regard to genetic resources and to enable them to benefit from the use of their traditional knowledge and practices related to genetic resources;
- (k) Public education and awareness focusing on indigenous and local communities and all relevant stakeholders at local, national and regional levels;

(l) Human-resources development at all levels, including: legal drafting skills for development of access to genetic resources and benefit-sharing measures; contract-negotiation skills for indigenous and local communities and other relevant stakeholders; modalities for benefit-sharing; dispute resolution mechanisms;

(m) Development of awareness with respect to conventions, norms and policies relating to intellectual property rights and trade and their interrelationship with genetic resources and traditional knowledge;

(n) Strengthening inter-institutional linkages and processes with a view to ensuring more effective coordination.

(o) Evaluation of how the access activity may impact on conservation and sustainable use of biodiversity, to determine the relative costs and benefits of granting access;

(p) Clarification and/or recognition, as appropriate, of established rights and claims of indigenous and local communities over genetic resources and related traditional knowledge, innovations and practices, subject to collecting for scientific or potential commercial purposes and subject to national legal and policy frameworks;

(q) Mechanisms to provide information to potential users, regulators and the public, international and national, on their obligations regarding access to genetic resources.

### ***C. Mechanisms for the implementation of capacity-building in key areas***

6. The following processes, measures and mechanisms could be used for the implementation of capacity-building activities for access to genetic resources and benefit-sharing; noting that measures directed towards the capacity-building needs of users and of providers should be mutually supportive.

#### *7. Actions at multiple levels:*

(a) Awareness-raising for the issues at stake and identification of capacity needs at the local, national, subregional, and regional levels, taking into account, as appropriate, the work of the Global Environment Facility on national capacity self-assessment;

(b) Prioritization at the local, national, and regional levels of the key areas, drawing upon a range of existing expertise in academic, industrial and government sectors and indigenous and local communities;

(c) Identification of existing and planned capacity-building initiatives, including capacity-building gaps, at the local, national, subregional, regional and international levels, both public and private, and their coverage, including by:

- (i) National sources;
- (ii) Bilateral sources;
- (iii) Regional sources;
- (iv) Multilateral agencies;
- (v) Other international sources;
- (vi) Indigenous and local communities;

- (vii) Private sector, non-governmental organizations and other stakeholders;
- (d) Developing and enhancing synergies and coordination of capacity-building initiatives;
- (e) Establishment of indicators for monitoring capacity-building implementation;
- (f) Funding through the Global Environment Facility and other donors;
- (g) The participation of the private sector, academic institutions, relevant institutions and organizations of indigenous and local communities, and non-governmental organizations, as providers of capacity-building in specific areas, for example through collaborative research, transfer of technology and funding;
- (h) Training workshops, train the trainers, exchange programmes and study trips;
- (i) Full and effective involvement and participation of relevant stakeholders and indigenous and local communities, taking into account the tasks defined within the programme of work on the implementation of Article 8(j) and related provisions of the Convention;
- (j) Development of audiovisual, multi-media and educational material.

8. *Actions at the national level:*

- (a) Designation of national focal points and establishment of competent national authorities;
- (b) Development of appropriate national access and benefit-sharing strategies, policies, legislation and regulatory frameworks;
- (c) Integration of capacity-building for access to genetic resources and benefit-sharing within the framework of national biodiversity strategies and other related initiatives and strategies;
- (d) Approaches for action, including timelines for the operation of capacity-building for access to genetic resources and benefit-sharing, as provided for in the appendix to this Action Plan;
- (e) Scientific and technical areas, including research production and technology transfer relevant to access to and use of genetic resources and benefit-sharing;
- (f) Development of instruments and tools, including indicators to monitor and assess the implementation of capacity-building for access to genetic resources and benefit-sharing at all stages, and the effectiveness of policy and legislative measures.

9. *Actions at the regional and subregional levels and at the international levels:*

- (a) Regional and subregional collaborative arrangements;
- (b) Assessment of resource requirements and development of a funding strategy;
- (c) Scientific and technical cooperation and partnerships among Parties, and between Parties and relevant multilateral agencies and other organizations through, *inter alia*, the clearing-house mechanism of the Convention, and other relevant networks, including those of relevant indigenous and local communities and relevant stakeholders;

- (d) Information exchange, through the clearing-house mechanism of the Convention, the use of the Internet, databases, CD-ROMs, hard copies and workshops;
- (e) Identification and dissemination of case-studies and best practices;
- (f) Coordination between multilateral and bilateral donors and other organizations;
- (g) Development of model agreements and codes of conduct for specific uses, users and sectors, where possible making use of work done in other forums;
- (h) The Global Taxonomy Initiative;
- (i) The roster of experts on access to genetic resources and benefit-sharing established under the Convention.

#### ***D. Coordination***

10. In view of the multiplicity of actors undertaking capacity-building initiatives for access to genetic resources and benefit-sharing, mutual information-sharing and coordination at all levels should be promoted to encourage synergies and to identify existing gaps in coverage. At the international level, coordination is required with other relevant international regimes, in particular with capacity-building programmes under the International Treaty on Plant Genetic Resources for Food and Agriculture, and with the World Intellectual Property Organization to ensure synergies and complementarities.

11. While recognizing the country-driven nature of the Action Plan, regional and subregional approaches should be encouraged and facilitated to implement the Action Plan, noting in particular the special needs of small island developing States (SIDS). Such facilitation could include appropriate advice to the Global Environment Facility (GEF), including promotion of regional coordination among implementing agencies of capacity-building activities supported by GEF, the submission of relevant case-studies and the broader use of the clearing-house mechanism as a means, assisted by the Executive Secretary, of identifying opportunities for regional and subregional collaboration.

12. Parties, Governments and relevant international organizations should be encouraged to provide information to the Secretariat on steps taken, including by donors, towards the implementation of capacity-building measures, to be made available through the clearing-house mechanism of the Convention.

13. Parties may consider including in their national reports, websites and any other form of reporting, information on the implementation of capacity-building measures on access to genetic resources and benefit-sharing.

14. Coordination between the Ad Hoc Open-ended Inter-Sessional Working Group on Access and Benefit sharing and the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity in the continuing development of their programmes of work with respect to capacity-building for indigenous and local communities should be encouraged.

*Appendix*

**POSSIBLE APPROACHES FOR ACTION**

*Recognizing* that the status of policy development related to access and benefit-sharing differs among countries, the approaches for action necessary to implement the Action Plan on access and benefit-sharing are to be decided by countries according to their national needs and priorities,

*Cognizant* of the urgent need to build capacities in developing countries, in particular the least developed and small island developing States among them, as well as countries with economies in transition,

*Building on* the identified elements in the Action Plan and without prejudice to the timeframes indicated therein,

As a tool to assist countries to establish national priorities and to facilitate regional and subregional activities the following approaches for action, based on experience and past practice, are proposed for consideration.

***Possible approaches for implementation of activities identified in the Action Plan***

***A. National level***

1. Inventory of genetic resources and traditional knowledge and evaluation of their potential markets, as well as assessment of existing measures and practices relating to access and benefit-sharing.
2. Assessment of the effectiveness and adequacy of existing capacity.
3. Development of national access and benefit-sharing strategy or policy (determination of ownership or rights to provide resources, including rights of indigenous and local communities; traditional knowledge; private sector partnership; prior informed consent; implementation; conflict resolution).
4. Enhancing awareness and participation of indigenous and local communities and all relevant stakeholders.
5. Development of timelines, including short- and long-term requirements for internal and external funding.
6. Development and/or strengthening of institutional, administrative, financial and technical capacities, including designation of national focal points and competent authorities and development of national legislative measures.
7. Mechanism for handling access and benefit-sharing requests, including decision-making, as well as public information and participation.
8. Mechanisms for monitoring and compliance for access and benefit-sharing arrangements.
9. Appropriate information mechanisms.

**B. *Subregional and regional levels***

1. Assessment of national, bilateral and multilateral funding.
2. Mechanisms for regional and subregional coordination and harmonization of access and benefit-sharing strategies, policies, and legislative measures, where appropriate. This may also include regional and subregional websites, databases, collaborative arrangements, advisory mechanisms, and centres of excellence and training.

**C. *International level***

1. Effective functioning of the clearing-house mechanism, including the establishment of a database on capacity-building activities.
2. Enhancing the effectiveness and adequacy and coordination of financial resources to be provided by multilateral and bilateral donors and other donors to developing countries, in particular the least developed and small island developing States among them, as well as countries with economies in transition.
3. Development and effective use of the roster of experts.
4. Enhancing synergies and coordination with capacity-building initiatives carried out by the Food and Agriculture Organization of the United Nations (FAO), the World Intellectual Property Organization (WIPO) and other relevant organizations.
5. Strengthening South-South cooperation.
6. Regular review and provision of further guidance by the Conference of the Parties to the Convention.

### **19.12. Biodiversity and climate change**

*The following draft decision is taken from paragraphs 10 (a)-(b), (d)-(e), (g)-(i) and (k) of SBSTTA recommendation IX/11. The preamble is an additional suggestion by the Executive Secretary.*

*It should be noted that, in paragraph 10 (c) of the same recommendation, SBSTTA recommended that the Conference of the Parties should **facilitate building capacity related to accessing information and tools, and for enhancing coordination at national level to ensure that climate change mitigation and adaptation projects deliver environmental and social benefits and are consistent with national priorities.***

*In paragraph 10 (f) of the recommendation, SBSTTA recommended that the Conference of the Parties should **ensure that the results of the report on climate change and biodiversity prepared by the Ad Hoc Technical Expert Group are incorporated into the ongoing work of the Convention on Biological Diversity, whenever appropriate, and in particular, on forest biodiversity, marine and coastal biodiversity, mountain biodiversity, inland water biodiversity, biodiversity of dry and sub-humid lands, agricultural biodiversity, indicators, impact assessment, and incentive measures, without implying obligations on Parties additional to those under the Convention on Biological Diversity.***

*In paragraph 10 (j) of the same recommendation, SBSTTA recommended that the Conference of the Parties should **examine the need for support through the financial mechanism and other sources to developing country Parties, in particular the least developed and small island developing States among them, and countries with economies in transition, where appropriate, for:***

*(a) **Country-driven activities aimed at linking mitigation and adaptation projects to global climate change; in particular, projects related to ecosystem conservation, restoration of degraded lands and marine environments and overall ecosystem integrity;***

*(b) **Assistance in capacity-building with the aim of increasing the effectiveness in addressing environmental issues through their commitments under the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and the United Nations Convention to Combat Desertification;***

*(c) **Assistance in developing synergy-oriented programmes to conserve and sustainably manage all ecosystems, such as forests, wetlands and marine environments, and contribute to poverty eradication.***

*The Conference of the Parties*

*Noting that the Subsidiary Body on Scientific, Technical and Technological Advice welcomed the report of the Ad Hoc Technical Expert Group on Biological Diversity and Climate Change (UNEP/CBD/SBSTTA/9/11 and UNEP/CBD/SBSTTA/9/INF/12) and commended it to the Conference of the Parties as scientific advice provided in response to paragraphs 11 and 18 of decision V/4, as a basis for future work,*

1. *Invites Parties, other Governments, international organizations and other bodies to make use of the report on climate change and biodiversity prepared by the Ad Hoc Technical Expert Group on Biological Diversity and Climate Change in order to promote synergy between climate-change mitigation and adaptation activities and the conservation and sustainable use of biodiversity;*

2. *Invites* the national focal points for the Convention on Biological Diversity to bring the report to the attention of their counterpart focal points for the United Nations Framework Convention on Climate Change, and for other relevant agreements, in order to promote synergy at national level;
3. *Calls for* case-studies on interlinkages between biodiversity and climate change following a common format to be developed by the Executive Secretary, in collaboration with the Secretariat of the United Nations Framework Convention on Climate Change;
4. *Invites* Parties, Governments, funding agencies, research bodies and other organizations to address the gaps identified in the Report in order to help to optimize biodiversity conservation and sustainable use within climate change adaptation projects, as well as mitigation projects addressing the adverse effects of human activities over the long term at the national, regional, and global levels;
5. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice, as the next stage of its work on the interlinkages between biodiversity and climate change to develop, for the consideration of the Conference of the Parties, advice or guidance for promoting synergy among activities to address climate change, including mitigation and adaptation, activities to combat desertification and land degradation, and activities for the conservation and sustainable use of biodiversity;
6. *Invites* the conferences of the parties to the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification to collaborate with the Convention on Biological Diversity, including through the joint liaison group as appropriate, in the development of advice or guidance to Parties in implementing activities that are mutually supportive of the objectives of the three conventions;
7. *Invites* the Intergovernmental Panel on Climate Change to continue its work on the relationship between climate change and biodiversity including the detection and attribution to climate change of observed biodiversity losses, taking into account the target adopted by decision VI/26 of the Conference of the Parties to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national levels;
8. *Requests* the Executive Secretary to:
  - (a) Transmit the report of the Ad Hoc Technical Expert Group to the Secretariat of the United Nations Framework Convention on Climate Change and through the Secretariat to its bodies, and also to the secretariats of the Convention to Combat Desertification, the Ramsar Convention, the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol, the Intergovernmental Panel on Climate Change, the Millennium Ecosystem Assessment, the Convention on Migratory Species, the United Nations Development Programme, the Global Environment Facility, and the United Nations Forum on Forests, the World Heritage Convention and the Man and the Biosphere programme of UNESCO, as well as relevant organizations and bodies including, *inter alia*, other members of the Collaborative Partnership on Forests, IUCN, and the World Wide Fund for Nature;
  - (b) In preparation for the next stage of the work on climate change and biodiversity by the Subsidiary Body on Scientific, Technical and Technological Advice, gather in collaboration with the Secretariat of the United Nations Framework Convention on Climate Change, the Intergovernmental Panel on Climate Change, and other relevant organizations, relevant material for promoting synergy between climate-change mitigation and adaptation activities and the conservation and sustainable use of biodiversity, drawing upon:

- (i) Case-studies, contributed by Parties and others, illustrating the potential of biodiversity both to mitigate and adapt to global climate change, and lessons from these experiences, including lessons learned from extreme climate events;
- (ii) Existing relevant tools, approaches and processes for designing projects, and evaluating their economic, environmental and social implications, related to mitigating or adapting to climate change within the broader context of sustainable development.

## **20. Mechanisms for implementation**

### **[General]**

*The following draft decision is taken from paragraph 78 of the progress report on mechanisms for implementation (UNEP/CBD/COP/7/17).*

#### *The Conference of the Parties*

1. *Takes note* of the progress report on the mechanisms for implementation (UNEP/CBD/COP/7/17);
2. *Requests* the Parties to contribute and make available financial support towards the cost of the production of the second edition of the global biodiversity outlook report for release in May 2005;
3. *Requests* the Executive Secretary, subject to the availability of funding, to publish the third edition of the Handbook on the Convention on Biological Diversity, including the decisions of the Conference of the Parties up to its seventh meeting.

### **20.1. Financial resources and mechanism (Articles 20 and 21)**

#### **A. Additional financial resources**

*The following draft decision is taken from the recommendations of the Executive Secretary in paragraph 68 of his note on additional financial resources (UNEP/CBD/COP/7/18).*

#### *The Conference of the Parties*

### **Financing for achieving the target 2010**

1. *Requests* Parties and donor institutions to develop and implement an action plan, within the framework of national, subregional and regional biodiversity strategies and action plans, to implement the programme of work and the strategic plan of the Convention, in particular the target to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level;
2. *Realizes* that each developed country Party needs to allocate a minimum percentage of its gross national income to biodiversity-related official development assistance, as a critical step to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level;
3. *Stresses* the importance of implementing paragraph 7 of decision VI/16 in which Parties and Governments are invited to share their experience on developing and implementing financial measures for supporting national biodiversity strategies and action plans, as well as to review national budgets and monetary policies for purposes of biological diversity, and *requests* the Executive Secretary to compile and disseminate such information;

### **International assistance for biological diversity**

4. *Notes with appreciation* the publication "Aid activities targeting the objectives of the Rio Conventions 1998-2000" released by the Development Assistance Committee of the Organization for

Economic Cooperation and Development, and *invites* the Organization for Economic Cooperation and Development to provide information on financial flow statistics relating to the objectives of the Convention to the Conference of the Parties at its eighth meeting;

5. *Urges* Parties and Governments, funding institutions and development agencies, as well as other donors, which have not done so, to make their funded biodiversity-related projects publicly available on their respective websites and to notify the Executive Secretary of the list of such projects;

6. *Requests* the Executive Secretary to continue the efforts to compile and disseminate biodiversity-related funding information, in order to monitor funding status, identify gaps in funding activities and develop options;

#### ***Financing for the programme of work of the Convention***

7. *Invites* the Executive Secretary, in collaboration with relevant partner organizations, to assist with initiation and development of project proposals or programmes to enhance efforts to finance the programme of work of the Convention with respect to its thematic areas and cross cutting issues.

8. *Decides* that requests to donor and related agencies should be incorporated into a single decision, including identification of priority issues that will provide support for thematic areas and cross cutting issues as well as capacity-building.

9. *Requests* the Executive Secretary to develop concrete project proposals, for the consideration and approval of the Conference of the Parties at its eighth meeting, to assist with implementation of the programme of work of the Convention;

#### ***Global initiative on banking, business and biodiversity***

10. *Decides* to establish a Global Initiative on Banking, Business and Biodiversity to engage the private sector in the implementation of the Convention, and *requests* the Executive Secretary, in collaboration with the Finance Initiatives of the United Nations Environment Programme and with other relevant regional and international organizations, to convene an international task force to elaborate a programme of work, including objectives, mechanisms for engagement and operational structure, for the global initiative on banking, business and biodiversity;

#### ***External debt and biological diversity***

11. *Invites* all creditor countries and, in particular, the Heavily Indebted Poor Countries (HIPC) Initiative to consider cancellation of all debts that have been utilized for the conservation and sustainable use of biological diversity;

12. *Requests* the Executive Secretary, in collaboration with relevant partner organizations, to organize a capacity-building workshop to promote wider application of debt-for-nature swaps and related initiatives.

**B. Review of the effectiveness of the financial mechanism**

*The following draft decision is taken from the recommendations of the Executive Secretary in paragraph 68 of his note on the arrangements for the third review of the effectiveness of the financial mechanism (UNEP/CBD/COP/7/17/Add.5).*

*The Conference of the Parties*

1. *Decides* to adopt the annex to the present decision, containing the objectives, methodology and criteria as well as procedures for the third review of the effectiveness of the financial mechanism to be conducted in time for the seventh meeting of the Conference of the Parties;
2. *Decides also* that this third 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*

**ARRANGEMENTS FOR THE THIRD REVIEW OF THE EFFECTIVENESS OF THE  
FINANCIAL MECHANISM**

**A. Objectives**

1. In accordance with paragraph 3 of Article 21, the Conference of the Parties will review the effectiveness of the mechanism, including the criteria and guidelines referred to in paragraph 2 of Article 21, 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 July 2001 to June 2005, 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 as well as relevant enabling activities and short-term response measures.
4. The review shall draw upon, *inter alia*, the following sources of information:

/...

- (a) Country review reports provided by developing countries Parties regarding the financial mechanism;
- (b) Reports prepared by the Global Environment Facility, including its reports to the Conference of the Parties;
- (c) Reports of the GEF Monitoring and Evaluation Unit, including relevant portfolio performance review (PPR), country portfolio reviews, biodiversity program studies, the third Overall Performance Study, private sector review, local benefit review, as well as other reviews such as biodiversity financial arrangements, indicators;
- (d) Project reviews and evaluation reports prepared by the Implementing Agencies;
- (e) Information provided by other relevant stakeholders.

### ***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 as well as in decision VI/17;
  - (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, V/13 and VI/17;
  - (c) The findings and recommendations of the third 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 facilitate the third review of the effectiveness of the financial mechanism in accordance with the above objectives, methodology and criteria.
7. The developing countries Parties, that have GEF-funded biodiversity projects that have been completed or with substantial progress in implementation, are invited to communicate to the Executive Secretary, by 15 January 2005, their plan to undertake the review of the effectiveness of the financial mechanism, including outlines of their report and funding requirements, and submit to the Executive Secretary, by 30 June 2005, their final report on the effectiveness of the financial mechanism during the period under review.
8. The Executive Secretary shall communicate to relevant Parties views on their review plans, and provide small enabling grants to facilitate the preparation of review reports by relevant Parties. The country evaluation should undertake such desk-studies, interviews, field visits and collaboration with the relevant GEF entities as may be required for the preparation of the study in accordance with the above objectives, methodology and criteria.
9. The Executive Secretary shall solicit information and views from all relevant stakeholders of the financial mechanism through the Interactive Info-Bulletin on Financing for Biological Diversity, and prepare a compilation of all solicited information.

10. The Executive Secretary shall contract an experienced independent evaluator to assess the country review reports and the information from the GEF entities as prescribed above as well as the information from relevant stakeholders, and prepare a draft synthesis report.

11. The draft synthesis report of the evaluator will 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. Based on the synthesis report prepared by the independent evaluator, the Executive Secretary shall prepare, in consultation with the Global Environment Facility, a draft decision on the third review of the financial mechanism, including specific suggestions for action to improve the effectiveness of the mechanism if necessary.

13. The Executive Secretary shall submit all the relevant documents to Parties at least three months prior to the seventh meeting of the Conference of the Parties.

### **C. Guidance to the financial mechanism**

*It is expected that, as has been the practice in the past, additional guidance to the financial mechanism will be formulated during the discussion on the various thematic programmes of and cross-cutting issues. That guidance will then be consolidated in a single draft decision for the consideration of the Conference of the Parties. There follows an outline for a possible draft decision, based on elements contained in decision VI/17, adopted at the sixth meeting of the Conference of the Parties, with the specific guidance to be added depending on the outcome of the discussion on the other items of the agenda.*

#### *The Conference of the Parties*

*Recalling* the relevant provisions of its decisions I/2, II/6, III/5, III/8, IV/11, IV/13, V/12, V/13 and VI/17,

*Taking note* of the report of the Global Environment Facility, [36/](#) and the compilation of past guidance to the financial mechanism, [37/](#)

*Decides* to provide the following additional guidance to the Global Environment Facility in the provision of financial resources, in accordance with Article 20 and Article 21, paragraph 1 of the Convention and in conformity with decisions I/2, II/6, III/5, IV/13, V/13 and VI/17 of the Conference of the Parties. In this regard, the Global Environment Facility shall provide financial resources to developing countries Parties, taking into account the special needs of the least developed countries and the small island developing States amongst them, 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, and taking fully into consideration all relevant decisions from the Conference of the Parties. The Global Environment Facility as the institutional structure operating the financial mechanism should provide financial resources:

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[36/](#) UNEP/CBD/COP/7/9.

[37/](#) UNEP/CBD/COP/6/INF/1.

**20.2. Scientific and technical cooperation and the clearing-house mechanism (Article 18, paragraph 3)**

**A. The clearing-house mechanism**

*The following draft decision is taken from paragraph 66 of the note by the Executive Secretary on clearing-house mechanism activities during the inter-sessional period (UNEP/CBD/COP/7/17/Add.1).*

*The Conference of the Parties,*

*Taking note of the note by the Executive Secretary on the activities of the clearing-house mechanism during the inter-sessional period (UNEP/CBD/COP/7/17/Add.1),*

*Noting with satisfaction the concrete steps taken towards making the clearing-house mechanism an effective tool for promoting technical and scientific cooperation among Parties,*

1. *Decides to extend the mandate of the informal advisory committee, as constituted and coordinated by the Executive Secretary, and as defined by its operational guidelines;*

2. *Also decides to review the continuation and mandate of the informal advisory committee at the ninth meeting of the Conference of the Parties;*

3. *Calls upon Parties to:*

(a) Use the clearing-house mechanism toolkit to establish clearing-house mechanism national focal points and websites, if they have not done so already;

(b) Contribute resources for the translation and maintenance in the six official languages of the United Nations of the content of the website of the Secretariat for the Convention;

(c) Use the controlled vocabulary for the Convention on Biological Diversity to facilitate interoperability of information among national clearing-house mechanisms;

4. *Invites developed countries Parties to:*

(a) Assist the Executive Secretary in supporting developing countries Parties, through the clearing-house mechanism, in their efforts to implement and use new information technologies, including the set-up of websites; and

(b) Contribute the necessary funds to allow the Executive Secretary to organize a meeting of the clearing-house mechanism national focal points once a year;

5. *Requests the Executive Secretary to use the clearing-house mechanism, in collaboration with the informal advisory committee, to continue to strengthen collaboration with IABIN hubs, BioNet LOOPs (Locally Owned and Operated Partnerships), NatureServe CDCs (Centres for Data Conservation), and nodes of the Global Biodiversity Information Facility;*

6. *Also requests the Executive Secretary to:*

(a) Update the strategic plan of the clearing-house mechanism to 2009, in collaboration with the informal advisory committee, for consideration by the eighth meeting of the Conference of the Parties;

(b) Convene, subject to the availability of financial resources, regional workshops as a catalysing mechanism to allow for the interaction of the international thematic focal points with the national focal points to further enhance the scientific and technical cooperation goal of the clearing-house mechanism;

(c) Update the clearing-house mechanism toolkit to be used as a meta-toolkit, linking the different existing toolkits with a view to optimise their resources and assist users to choose the most appropriate technology;

(d) Examine ways to develop a regional portal to visualize and exchange national and regional cartographic information (geographic information systems and remote sensing) from all thematic areas (including maps, satellite images and datasets);

(e) Develop tools through the clearing-house mechanism to assist Parties in their initiatives to more effectively transfer technologies;

(f) Advise on ways the clearing-house mechanism can assist to make relevant information interoperable among the three Rio conventions.

***B. Operational procedures for the informal advisory committee of the clearing-house mechanism***

*The following draft decision is taken from paragraph 7 of the note by the Executive Secretary on operational procedures for the informal advisory committee of the clearing-house mechanism (UNEP/CBD/COP/7/17/Add.6).*

*The Conference of the Parties*

*Decides to adopt the operational procedures for the informal advisory committee of the clearing-house mechanism established by its decision III/4, paragraph 10, as annexed to the present decision.*

*Annex*

**DRAFT OPERATIONAL PROCEDURES FOR THE INFORMAL ADVISORY COMMITTEE**

***A. Objectives***

1. The informal advisory committee shall, in providing guidance to the Executive Secretary, 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 development and implementation of guidance from the Conference of the Parties concerning the clearing house-mechanism and the Strategic Plan of the clearing-house mechanism (UNEP/CBD/COP/5/INF/3);

(c) Facilitate and encourage cooperation with other relevant international and regional scientific and technical cooperation initiatives;

(d) Advise on means to facilitate the implementation of the clearing-house mechanism at the national level;

- (e) Enhance the scientific and technical cooperation benefits of all Convention activities.

**B. Operational procedures**

2. The Executive Secretary, in constituting and coordinating the informal advisory committee, shall seek to ensure regional balance and relevant expertise and knowledge, including of relevant international and regional scientific and technical cooperation initiatives, and non-governmental organizations.

**C. Membership**

3. The members of the informal advisory committee shall be selected by the Executive Secretary. In selecting members, he shall seek to ensure a balance of expertise and regional and biogeographical balance.

4. Informal advisory committee members shall be selected for their expertise and understanding of the clearing-house mechanism and the Convention, taking into account the need for expertise including: scientific and technical cooperation; capacity-building; information exchange and sharing; and facilitating partnership with other organizations and initiatives.

5. Informal advisory committee members shall be selected for two years. The term is renewable by the Executive Secretary.

6. The Executive Secretary should ensure that changes in membership do not affect the continuity of the work.

7. Proxies may be agreed to by the Executive Secretary.

**D. Chair**

8. The Chair of the informal advisory committee shall be selected by the Executive Secretary, after consultation with the members, and serve for at least two years.

**E. Meetings**

9. Meetings shall be convened by the Executive Secretary and held back-to-back with SBSTTA and meetings of the Conference of the Parties. Additional meetings, electronic or in person, may be convened by the Executive Secretary as required to ensure the timely handling of issues.

10. The draft agenda for each meeting shall, if possible, be made available two months prior and otherwise at least one month prior to each meeting, and be posted on the Convention on Biological Diversity web site and notified to the informal advisory committee and clearing house-mechanism national focal points by fax and/or email, and/or post.

11. Minutes of each meeting, and related information documents, shall be posted on the website of the Convention on Biological Diversity as soon as practical following their review by the Executive Secretary. This information will also be made available to the informal advisory committee and clearing-house mechanism national focal points by fax or email or post.

### **20.3. Education and public awareness (Article 13)**

*The following draft decision is taken from paragraph 60 (b) of the note by the Executive Secretary on communication, education and public awareness (CEPA) activities during the inter-sessional period (UNEP/CBD/COP/7/17/Add.4). In paragraph 60 (a) of the same note, the Executive Secretary suggests that **the Conference of the Parties may also wish to review the status of implementation of the Global Initiative on CEPA as outlined in the present note and, in particular, take note of the progress made, constraints encountered, and the lessons learned in the overall implementation process.***

#### *The Conference of the Parties*

*Takes note of the report of the meeting of the Consultative Working Group of Experts on Communication, Education and Public Awareness (UNEP/CBD/COP/7/17/INF/10) and, in particular, the draft matrix in the report, which summarizes suggestions and proposals to enhance the implementation of the Global Initiative on Communication, Education and Public Awareness, including, *inter alia*, key elements required to develop an operational strategy to guide the implementation of the three programme elements in a coherent and consistent manner (including prioritization, clarification of intended audience, activities, means and resources to undertake the identified activities, institutional arrangements, results to be generated, as well as the reporting mechanisms on implementation and impacts of outputs).*

## **20.4 National reporting**

### **A. National reporting**

*The following draft decision is taken from paragraph 57 of the note by the Executive Secretary on national reporting (UNEP/CBD/COP/7/17/Add.3).*

#### *The Conference of the Parties*

1. *Takes note* of the analysis of the information contained in the second national reports as contained in this note (UNEP/CBD/COP/7/17/Add.3 and UNEP/CBD/COP/7/INF/2);
2. *Expresses concern* over the delay in the submission of national reports by some Parties, and takes note of the difficulty that this delay may pose to the assessment of the implementation of the Convention in the absence of an adequate number of national reports;
3. *Requests* Parties to facilitate the preparation of the third and future national reports and endeavour to submit national reports in time;
4. *Encourages* Parties, Governments, relevant bilateral, regional and multilateral organizations, and the implementing agencies of the Global Environment Facility to collaborate to strengthen the various capacities of Parties, particularly developing country Parties and countries with economies in transition, to prepare their future national and thematic reports;
5. *Requests* the Global Environment Facility to work together with the Executive Secretary to explore ways to expedite and simplify its procedures for allocating funds to the eligible countries to prepare their national reports to fulfil their reporting obligations under the Convention;
6. *Requests* Parties to submit as much information and data as available to improve the adequacy of information for the evaluation of the implementation of the Convention and the Strategic Plan of the Convention, particularly focusing on:
  - (a) Status and trends of biodiversity and its various components;
  - (b) Impacts of national actions on the achievement of the objectives of the Convention, the goals and objectives identified in the Strategic Plan of the Convention and the 2010 target; and
  - (c) Constraints or impediments encountered in the implementation of the Convention;
7. *Requests* the Subsidiary Body for Scientific, Technical and Technological Advice and other bodies established under the Convention to take into account, where appropriate, the conclusions drawn from the analysis of the second national reports when addressing relevant programmes of work, cross-cutting and other issues under the Convention.

### **B. Guidelines for the third national report**

*The following draft decision is taken from paragraph 1 of recommendation 2 of the Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010 (UNEP/CBD/COP/7/5, annex) and paragraph 25 of the note by the Executive Secretary on guidelines for the third national report (UNEP/CBD/COP/7/17/Add.2).*

#### *The Conference of the Parties*

1.. *Endorses* the format for the third national report, as contained in the annex to the note by the Executive Secretary on guidelines for the third national report (UNEP/CBD/COP/7/17/Add.2), as amended, with respect to the questionnaire on forest biological diversity, by annex I of the note by the Executive Secretary on proposals for the review of the expanded programme of work on forest biological diversity (UNEP/CBD/COP/7/17/Add.7);

2. *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 seventh meeting and to make the revised format available to Parties no later than July 2004;

3. *Further requests* the Executive Secretary to revise the existing national reporting formats to make them more concise and better targeted to reduce the reporting burden placed on Parties, and to better contribute to the assessment of progress towards achieving the mission of the Strategic Plan and the identification of obstacles to implementation. The revision of the reporting formats should address the matters in decision VI/25, paragraph 3, and:

- (a) The need to include reporting on all the four goals of the Strategic Plan;
- (b) The need to allow Parties to incorporate the results of indicators (where available) to enable parties to provide a substantive assessment of progress;
- (c) The need to include available factual data on the outcomes and impacts of measures taken to achieve the objectives of the Convention (including status and trends of biodiversity);

4. *Invites* Parties to promote wide stakeholder involvement, as well as that of indigenous and local communities, in the preparation of national reports, or in related processes that will inform national-report preparation, to ensure a more accurate and comprehensive reflection of the views and priorities of national stakeholders;

5. *Invites* developed country Parties to continue to provide support in the form of technical capacity development and financial resources (including links to the Global Environment Facility) to developing country Parties, Parties with economies in transition and small island developing States, as appropriate, to facilitate these Parties to meet their reporting obligations;

6. *Encourages* the Executive Secretary to participate in the ongoing efforts to harmonize and streamline the national reporting processes of Convention with those of other biodiversity-related conventions and processes and to strengthen the inter-sessional efforts to promote the submission of national reports;

7. *Decides* to further reduce the reporting burden on Parties by, wherever possible, using other means to gather information to allow evaluation of implementation of the Convention and the Strategic Plan;

8. *Requests* Parties to submit their third national reports:

- (a) By 15 May 2005;
- (b) In an official language of the United Nations;
- (c) In both hard copy and electronic format;

9. *Encourages* Parties to provide an English translation of their national report when submitting it in any other official language of the United Nations;

10. *Further requests* the Executive Secretary to: prepare an analysis of the information contained in the third national reports for consideration by the Conference of the Parties at its eighth meetings, and make it available through the clearing-house mechanism;

11. *Invites* the Implementing Agencies of the Global Environment Facility to facilitate the preparation of the third national reports by the Parties.

**21. Cooperation with other conventions and international organizations and initiatives**

***[Global Partnership for Biodiversity]***

*The following draft decision is taken from paragraph 2 of recommendation 1 A of the Open-ended Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010. As proposed by the Executive Secretary in his note on the evaluation of progress towards the 2010 biodiversity target (UNEP/CBD/COP/7/20/Add.3), **the Conference of the Parties may also wish to consider defining the mandate and institutional nature of such a partnership.** It should also be noted that several other draft decisions include elements relating to specific cooperation with other conventions and international organizations and initiatives.*

*The Conference of the Parties*

*Requests* the Executive Secretary to develop a global partnership on biodiversity comprising the major international biodiversity related organizations, with the Secretariat of the Convention on Biological Diversity facilitating the process in order to enhance synergies, avoid duplication of efforts and improve implementation of biodiversity-related agreements.

## 22. *Budget for the programme of work for the biennium 2005-2006*

*Paragraphs 1-18 of the following draft decision is taken from the suggested action in paragraph 63 of the note by the Executive Secretary on the proposed budget for the programme of work of the Convention on Biological Diversity and its Cartagena Protocol on Biosafety for the biennium 2005-2006 (UNEP/CBD/COP/7/2). The remaining paragraphs come from the suggested action in paragraph 101 of the note by the Executive Secretary on the financial and administrative performance of the Secretariat and the budget for the trust funds of the Convention (UNEP/CBD/COP/7/10).*

### *The Conference of the Parties*

1. *Approves* a core (BY) programme budget of \$xxx for the year 2005 and of \$xxx for the year 2006, for the purposes listed in the table below;
2. *Adopts* the scale of assessments for the apportionment of expenses for 2005 and 2006 as contained in the annex to the present decision;\*
3. *Approves* a Secretariat staffing table for the programme budget contained in annex I below, and *requests* that all staff positions be filled expeditiously;
4. *Approves* a drawing of \$xxx from the unspent balances or contributions ("carry-over") from previous financial periods to cover part of the 2005-2006 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 the table below 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. *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, BF);
7. *Reiterates*, 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;
8. *Further reiterates* 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;
9. *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;
10. *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 Cartagena Protocol on Biosafety at the inter-sessional meetings of the respective bureaux;

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\* To be prepared.

11. *Decides* that the trust funds (BY, BE, BZ) for the Convention shall be extended for the period of two years, beginning 1 January 2006 and ending 31 December 2007;

12. *Decides* that the trust fund to support developing country Parties on biosafety issues, which was approved on a pilot-phase basis, shall be permanently established and extended for the period of three years, beginning 1 January 2005 and ending 31 December 2007;

13. *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 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 2004 for the calendar year 2005 and by 1 October 2005 for the calendar year 2006 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;

14. *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, BF) of the Convention;

15. *Takes note* of the funding estimates for the:

(a) Special Voluntary Trust Fund (BE) for Additional Voluntary Contributions in Support of Approved Activities for the Biennium 2005-2006 specified by the Executive Secretary and included in annex II below;

(b) 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 2005-2006, as specified by the Executive Secretary and included in annex III below;

(c) General Trust Fund (BF) to Support Developing Country Parties on Biosafety Issues, for the biennium 2005-2006, as specified by the Executive Secretary and included in Annex IV below;

and *urges* Parties to make contributions to those funds;

16. *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;

17. *Requests* the Executive Secretary to prepare and submit a budget for the programme of work for the biennium 2007-2008 for the consideration of the Conference of the Parties at its eighth meeting, and to report on income and budget performance as well as any adjustments made to the Convention budget for the biennium 2005-2006;

18. *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.

19. *Welcomes* the annual contribution of US\$ 1,000,000 from Canada, the host country of the Secretariat;

20. *Authorizes* the Executive Secretary, in an effort to improve the efficiency of the Secretariat and to attract highly qualified staff to the Secretariat, to enter into direct administrative and contractual arrangements with Parties, Governments 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. *Welcomes* the development and continuation of the fellowship programme as a means of enabling developing country Parties to send their nationals to the Secretariat for the purposes of enhancing their understanding of the Convention and the Biosafety Protocol and other processes and for increasing awareness of biodiversity and related issues;

22. *Notes* that the Junior Professional Officer programme and the internship programme afford an opportunity for Parties to learn about and further develop an understanding of the thematic or cross-cutting issues covered under the Convention;

23. *Expresses its support* for staff development and learning programmes that encourage all staff to continuously strengthen their knowledge and broaden their skills;

24. *Notes* that these programmes serve to improve participation of country Parties in the Convention process.

25. *Expresses its appreciation for* the contributions provided by Parties thus far (both financial and in-kind) for capacity-building programmes within the Secretariat.

**Table. Convention resource requirements from the core budget (BY Trust Fund) for the 2005-2006 biennium**

*(thousands of United States dollars)*

Expenditure	2005	2006
I. <i>Programmes</i>		
Executive direction and management	1,003.9	1,063.8
Scientific technical and technological matters	2,416.4	2,342.4
Social, economic and legal matters	1,486.3	1,594.2
Implementation and outreach	993.5	1,055.7
Resource management and conference services	788.7	1,504.3
Shared costs	3,267.1	3,326.6
Sub-total (I)	9,955.9	10,887.0
II. <i>Programme support charge 13%</i>	1,294.3	1,415.3
Total budget (I + II )	11,250.2	12,302.3

*Annex I*

**SECRETARIAT-WIDE STAFFING REQUIREMENTS FROM THE CORE BUDGET**

	2005	2006
A. Professional category		
ASG	1	1
D-1	3	3
P-5	5	5
P-4	17	17
P-3	15	15
P-2	0	0
Total Professional category	41	41
B. Total General Service category	29	29
TOTAL (A+B)	70	70

*Annex II*

**CONVENTION RESOURCE REQUIREMENTS FROM THE SPECIAL VOLUNTARY TRUST FUND (BE) FOR ADDITIONAL VOLUNTARY CONTRIBUTIONS IN SUPPORT OF APPROVED ACTIVITIES FOR THE 2005 – 2006 BIENNIUM**

*(thousands of United States dollars)*

<i>I. Description</i>	2005	2006
<b>1. Meetings/Workshops</b>		
<b><i>Executive direction and management</i></b>		
Regional meetings for the eighth meeting of the Conference of the Parties	0.0	40.0
<b><i>Scientific technical and technological matters</i></b>		
Regional workshops – Global Plant Conservation strategy (4)	120.0	120.0
Regional workshops – dry and sub-humid lands (3)	180.0	0.0
Regional workshops – climate change and biodiversity (4)	120.0	120.0
Workshops – inland waters (2)	120.0	0.0
Workshop – marine and coastal biodiversity	60.0	0.0
Workshop – agrobiodiversity	0.0	60.0
Workshop – alien invasive species	0.0	60.0
Workshop – impact assessment	0.0	60.0
Workshop – Global Taxonomy Initiative	60.0	0.0
Workshop – protected areas (2)	0.0	120.0
Workshop – climate change and biodiversity	0.0	60.0
Workshop – migratory species	60.0	0.0
Liaison group- dry and sub-humid lands (2)	40.0	0.0

<i>I. Description</i>	<b>2005</b>	<b>2006</b>
Liaison group-invasive alien species (staff travel)	5.0	5.0
<b><i>Social, economic and legal matters</i></b>		
Regional workshops on capacity-building for access and benefit-sharing (4)	200.0	80.0
Liaison group – Article 8(j) and related provisions	20.0	0.0
<b><i>Implementation and outreach</i></b>		
Regional workshops on the clearing-house mechanism (4)	200.0	80.0
Workshop on the financial mechanism	80.0	0.0
Advisory group meeting on the financial mechanism	20.0	0.0
<b>2. Staff</b>		
Agricultural biodiversity programme officer (FAO)	146.5	150.9
<b>3. Consultants</b>		
STTM	75.0	15.0
SEL	120.0	40.0
I&O	100.0	0.0
<b>4. Publications</b>		
Global Biodiversity Strategy – 3 <sup>rd</sup> edition	0.0	150.0
Guides to financial assistance for biodiversity (3)	30.0	0.0
<b>Sub-total I</b>	<b>1,756.5</b>	<b>1,160.9</b>
<b>II. Programme support costs (13%)</b>	<b>228.4</b>	<b>150.9</b>
<b>TOTAL COST (I + II)</b>	<b>1,984.9</b>	<b>1,311.8</b>

*Annex III*

**CONVENTION RESOURCE REQUIREMENTS FROM THE SPECIAL VOLUNTARY TRUST FUND (BZ) FOR FACILITATING PARTICIPATION OF PARTIES IN THE CONVENTION PROCESS FOR THE 2005–2006 BIENNIUM**

*Thousands of United States dollars)*

<i>Description</i>	<b>2005</b>	<b>2006</b>
<b><i>I. Meetings</i></b>		
Eighth meeting of the Conference of the Parties	0.0	750.0
Regional meetings in preparation for the Conference of the Parties (4) (COP-8)	0.0	200.0
Subsidiary Body on Scientific, Technical and Technological Advice	540.0	540.0
Open-ended Inter-sessional Meeting on the Multiyear Programme of Work of the Convention on Biological Diversity up to 2010	240.0	0.0

/...

Ad-hoc Open-ended Working Group meeting on Article 8(j)	0.0	540.0
Open-ended Ad Hoc Working Group on ABS	540.0	0.0
Support to indigenous and local communities	100.0	100.0
<b>Subtotal I</b>	<b>1,420.0</b>	<b>2,130.0</b>
<b>II. Programme support costs (13%)</b>	184.6	276.9
<b>TOTAL COST (I + II)</b>	<b>1,604.6</b>	<b>2,406.9</b>

*Annex IV*

**SECRETARIAT-WIDE BIOSAFETY RESOURCE REQUIREMENTS FROM THE GENERAL TRUST FUND (BF)\* TO SUPPORT DEVELOPING COUNTRY PARTIES ON BIOSAFETY ISSUES FOR THE 2005-2006 BIENNIUM**

*(thousands of United States dollars)*

I	Description	2005	2006
	<b><i>Consultants /Sub-contracts from Roster of Biosafety Experts</i></b>		
	Least Developed Countries	50.0	50.0
	Small Island developing States	50.0	50.0
	Other developing Countries	50.0	50.0
	Economies in Transition	50.0	50.0
	<b>Subtotal</b>	<b>200.0</b>	<b>200.0</b>
II.	<i>Programme support charges (13%)</i>	26.0	26.0
	<b>Total Cost (I + II)</b>	<b>226.0</b>	<b>226.0</b>

\* As indicated in the introduction to the present note, this is a recently established trust fund for voluntary contributions to support developing country Parties on biosafety issues. The fund was established in accordance with paragraph 27 of decision VI/29 of the sixth meeting of the Conference of the Parties intended to pay for the use, by developing country Parties and Parties with economies in transition, of experts from the Roster of Biosafety Experts.

#### IV. PRIORITY ISSUES FOR REVIEW AND GUIDANCE

##### 23. *Mountain biological diversity*

*The following draft decision is taken from SBSTTA recommendation IX/12.*

*The Conference of the Parties*

1. *Adopts* the proposed programme of work on mountain biological diversity, annexed to the present decision, as a set of actions addressing characteristics and problems that are specific to mountain ecosystems;

2. *Underlining* the sovereign rights and responsibilities of countries over their mountains and mountain biodiversity, *notes* that Parties should implement the programme of work on mountain biological diversity in the context of their national and subnational priorities and needs. Inclusion of an activity in a work programme does not mean relevance of that activity to all Parties;

3. *Invites* Parties to identify priority actions among the actions recommended in the proposed programme of work depending on the particular national or local conditions and *urges* Parties to incorporate them into their national biodiversity strategies and action plans, and implement them taking into account the ecosystem approach so as to contribute to the significant reduction of the rate of mountain biological diversity loss by 2010 and as a contribution to poverty eradication and to the benefit of indigenous and local communities dependent on mountains;

4. *Encourages* Parties, other Governments and organizations to ensure cross-referencing to, and coherence with, the other thematic and cross-cutting programmes of work, including technology transfer, while implementing this programme of work;

5. *Invites* Parties to adopt outcome-oriented targets for mountain biodiversity, taking into account the Strategic Plan of the Convention, the Global Strategy for Plant Conservation, the Plan of Implementation of the World Summit on Sustainable Development, the Millennium Development Goals and in conjunction with actions 2.1.5 and 3.2.2 of this programme of work;

6. *Agrees* that, in undertaking the implementation of the programme of work, Parties, Governments, international organizations, civil society organizations and others should take into account the knowledge, innovations and practices of indigenous and local communities and ensure their participation in conservation and sustainable use of mountain biological diversity;

7. *Recognizes* the need for resources, human, technological and financial capacity, to implement effectively the activities in the proposed programme of work;

8. *Invites* Parties, other Governments, and relevant organizations to report on implementation of this decision and those parts of the programme of work, which are identified as priorities under national and local conditions pursuant to paragraphs 3 and 5 through, *inter alia*, their reports submitted to the Conference of the Parties;

9. *Requests* the Executive Secretary to:

(a) Develop in collaboration with Parties and relevant organizations proposals on a small number of global outcome-oriented targets, timeframes in relation to the 2010 target, ways and means for implementation, and indicators at the regional, national and local levels for consideration at a meeting of the Subsidiary Body on Scientific, Technical and Technological Advice prior to eighth meeting of the Conference of the Parties;

(b) Compile information received from Parties, other Governments and relevant organizations and bodies, on the implementation of the programme of work, and analyse progress made towards the achievement of a significant reduction in the rate of mountain biodiversity loss by 2010;

(c) Assist the Parties in implementing the programme of work through, *inter alia*, the supporting activities defined in the programme of work, and the development, in collaboration with relevant organizations, of proposals for global and, where appropriate, regional targets or expected measurable outputs with timeframes and main actors; and

(d) Regularly gather information on the characteristics and problems that are specific to mountain biological diversity listed in paragraph 6 of the proposed programme of work;

10. *Further requests* the Executive Secretary to strengthen collaboration with other organizations, institutions and conventions, as a way to streamline many of the activities contained in the proposed programme of work; promote synergies and avoid unnecessary duplications;

11. *Notes* that the notes by the Executive Secretary on status and trends of, and threats to, mountain biological diversity (UNEP/CBD/SBSTTA/8/5), and on measures taken for the conservation and sustainable use of mountain biological diversity (UNEP/CBD/SBSTTA/8/6), can be a basis for the identification of priorities for early action, and recognizes that the relative importance of threats, and their underlying causes will vary by region and country, and, accordingly, requests the Executive Secretary to update this information as part of the reviews of the implementation of the thematic programmes of work in collaboration with Parties and relevant organizations, in particular the Global Mountain Biodiversity Assessment among others, and making use of all available information;

12. *Emphasizes* the importance of mountain biodiversity for livelihoods, and therefore requests the Executive Secretary to compile and disseminate information linking mountain biodiversity to sustainable development and poverty alleviation, and examples of successful collaboration between mountain dwellers and communities living in areas adjacent to mountains (as a way to illustrate the “upland-lowland contract”).

#### *Annex*

### **THE PROPOSED PROGRAMME OF WORK ON MOUNTAIN BIODIVERSITY**

#### ***A. Introduction***

1. Mountain areas cover almost one quarter of the Earth’s land surface and host about 12 per cent of its human inhabitants. Additionally, mountains provide vital natural resources for lowland peoples. Mountains are both a unique environment in their own right, and one that incorporates many of the existing thematic programmes under the Convention. For example, forests, inland waters, dry and sub-humid lands and agricultural programme elements can all be found in mountain biological diversity. The present programme of work on mountain biological diversity features goals and activities that are specific to mountain biological diversity, although the existing programmes of work on forests, inland waters, agricultural, and dry and sub-humid land biological diversity also apply to mountain ecosystems. As a result, the goals and activities contained in the existing programmes of work of each of these thematic areas should also be applied and implemented, whenever appropriate, for their respective areas in mountain ecosystems.

2. Mountain biological diversity is of high importance for a number of ecological functions. The integrity of soils is the prime focus for ecosystem services and human needs. Soil retention and slope stability are closely connected with the extent of above-ground and below-ground vegetation, both essential to ecosystem resilience after disturbance. The high plant functional diversity of mountain

ecosystems may also add to their resiliency and, should extreme disturbances occur, often provides effective barriers to high-energy events such as rock falls and avalanches. It also may reduce extensive damage levels at lower elevations. Although it has been to date impossible to provide a thorough definition of mountains with both universal application and acceptance, there are a number of characteristics that are unique to mountain ecosystems. These are referred to in the note by the Executive Secretary on the status and trends of, and threats to, mountain biodiversity prepared for the eighth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) (UNEP/CBD/SBSTTA/8/5).

3. Information and input from international forums may also be taken into account, particular, chapter 13 of Agenda 21, which relates to sustainable mountain development, and the World Summit on Sustainable Development, which also considered mountain ecosystems. Paragraph 42 of the Plan of Implementation of the World Summit, states that:

“Mountain ecosystems support particular livelihoods, and include significant watershed resources, biological diversity and unique flora and fauna. Many are particularly fragile and vulnerable to the adverse effects of climate change and need specific protection.”

4. The Plan of Implementation proposed a number of specific actions to be undertaken in regard to mountains. The 2002 International Year of the Mountains also provides valuable input. In addition, a number of international agreements and bodies, institutions, and programme initiatives may be considered such as the Convention on Wetlands, (Ramsar, Iran, 1971), the United Nations Convention to Combat Desertification (UNCCD), the United Nations Framework Convention on Climate Change (UNFCCC), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Centre for Integrated Mountain Development (ICIMOD), the International Centre for Agricultural Research in the Dry Areas (ICARDA), the International Partnership for Sustainable Development in Mountain Regions, the International Human Dimensions Programme on Global Environmental Change (IHDP), the Centre for Mountain Studies, the Consorcio para el Desarrollo de la Ecoregion Andina (CONDESAN), the Mountain Research Initiative (MRI), the Global Mountain Biodiversity Assessment (GMBA) of DIVERSITAS, the International Union of Forest Research Organizations (IUFRO), the Alpine Convention, the Carpathian Framework Convention and the World Conservation Monitoring Centre (WCMC).

### ***B. Overall purpose and scope of the programme of work***

5. The overall purpose of the programme of work is the significant reduction of mountain biological diversity loss by 2010 at global, regional and national levels, through the implementation of the three main objectives of the Convention on Biological Diversity.

6. The implementation of the programme of work aims at making a significant contribution to poverty alleviation in mountain ecosystems and in lowlands dependent on the goods and services of mountain ecosystems and thereby contribute to the objectives of the Strategic Plan of the Convention on Biological Diversity, the Plan of Implementation of the World Summit on Sustainable Development, and the Millennium Development Goals.

7. The programme of work focuses on addressing characteristics and problems that are specific to mountain biological diversity. These include:

(a) The particularly high concentration of biological diversity hotspots in mountain regions, including high ecosystem diversity, high species richness, high number of endemic and endangered species, and high genetic diversity of crop, livestock, and their wild relatives;

(b) Cultural diversity, and the particularly key role of indigenous and local communities in the conservation and management of mountain biological diversity;

(c) The fragility of mountain ecosystems and species and their vulnerability to human and natural disturbances, in particular to land-use change and global climate change (such as the retreat of glaciers and increased areas of desertification);

(d) The upland-lowland interactions that characterize mountain ecosystems, with special emphasis to the relevance of upland ecosystems for the management of food, water and soil resources.

8. The programme of work also seeks to avoid duplication with existing thematic work programmes and other existing initiatives of the Convention on Biological Diversity. Parties are encouraged to apply, where appropriate, the objectives and activities from these thematic work programmes to the conservation of mountain biological diversity, the sustainable use of mountain biological diversity, and the equitable sharing of benefits arising from the utilization of genetic resources.

9. The programme of work is intended to assist Parties in establishing national programmes of work with targeted goals, objectives, and actions, with specific actors, timeframes, inputs, and expected measurable outputs. Parties may select from, adapt, and/or add to, the goals, objectives and actions suggested in the current programme of work according to particular national and local conditions, and their level of development. Implementation of this programme of work should take into account the ecosystem approach of the Convention on Biological Diversity. In determining national programmes of work, Parties are encouraged to pay due regard to the social, economic, and environmental costs and benefits of various options. In addition, Parties are encouraged to consider the use of appropriate technologies, sources of finance, and technical cooperation, and to ensure, through appropriate actions, the means to meet the particular challenges and demands of their mountain ecosystems.

### *C. Programme elements, goals and actions*

#### **PROGRAMME ELEMENT 1: DIRECT ACTIONS FOR CONSERVATION, SUSTAINABLE USE AND BENEFIT-SHARING**

##### **Goal 1.1: To prevent and mitigate the negative impacts of key threats to mountain biological diversity**

###### *Actions*

- 1.1.1. Reduce the impacts of inappropriate land-use practices and changes in urban, forest, inland waters and agricultural areas in mountain ecosystems, including the buffer zones of protected areas using, as appropriate, planning or management mechanisms, such as ecological/economic/ecoregional planning/bioregional/hazardous-areas zoning, so as to ensure the maintenance of biodiversity, in particular ecosystem integrity.
- 1.1.2. Develop mechanisms and implement measures to reduce human-induced slope instability, adverse effects of natural geological hazards, and to maintain and/or enhance soil stability and ecosystem integrity by way of a diverse and natural vegetation cover that will also promote soil biodiversity function.
- 1.1.3. Prevent or mitigate the negative impacts of economic development, infrastructure projects and other human-induced disturbances on mountain biological diversity at all levels, taking into consideration the results of environmental and social impact assessment, paying particular attention to cumulative impacts.

- 1.1.4. Develop strategies specific to mountains ecosystems to prevent the introduction of invasive alien species and, when they have been introduced, control and eradicate their negative impacts on mountain biological diversity.
- 1.1.5. Monitor and exchange information on the impacts of global climate change on mountain biological diversity, and identify and implement ways and means to reduce the negative impacts.
- 1.1.6. Implement measures to reduce and prevent key pressures in mountain ecosystems such as deforestation, fragmentation, unsustainable harvesting, inappropriate reforestation or afforestation, and urban expansion that have a negative impact on biodiversity, land degradation, disruption of water flow, and consequent losses of biological diversity (see also decision VI/22).
- 1.1.7. Identify factors responsible for and possible measures to prevent the retreat of glaciers in some mountain systems and implement measures to minimize the impact of this process on biodiversity.
- 1.1.8. Identify local and long-range pollution (air, water and soil), which threaten mountain biodiversity at all levels and take appropriate measures to prevent and mitigate the impacts.
- 1.1.9. Subject to international law, maintain those agricultural and other land-use activities that are known to contribute to the maintenance of biological diversity in mountain ecosystems.

*Supporting activities of the Executive Secretary*

- 1.1.10. Compile, in collaboration with relevant bodies and organizations, and disseminate through the clearing-house mechanism and other means:
  - (a) Information on degraded mountain ecosystems as well as key threats to mountain biodiversity and their ecological and socio-economic impacts;
  - (b) Case-studies, lessons learned and best-practice guidance on ways to prevent and mitigate the negative impacts of key threats to mountain biodiversity.

**Goal 1.2: To protect, recover, and restore mountain biological diversity**

*Actions*

- 1.2.1. Develop and implement programmes to restore degraded mountain ecosystems and protect natural dynamic processes and maintain biological diversity in order to enhance the capacity of mountain ecosystems to resist and adapt to climate change, or recover from its negative impacts including, *inter alia*, by establishing corridors, where appropriate, to enable vertical migration of species, ensuring minimal viable population sizes to enable genetic adaptation to changing environmental conditions. These programmes should include socio-economic considerations, especially in relation to indigenous and local communities.
- 1.2.2. Initiate specific activities to facilitate maintenance, protection and conservation of existing levels of endemic species, with a focus on narrowly-distributed taxa.
- 1.2.3. Identify and protect unique, fragile mountain ecosystems, other biological diversity hotspots and their associated species, especially threatened species, giving priority

consideration to measures aimed at strict in situ protection and/or developing *ex situ* mechanisms whenever feasible.

- 1.2.4. Develop strategies for land-use and water-resource planning at landscape level using the ecosystem approach, taking into account elements of ecological connectivity and traditional uses of local communities, and to prevent and mitigate losses of mountain biological diversity due to fragmentation and land-use conversion.
- 1.2.5. Establish and strengthen adequate, effective national, regional and international networks of mountain-protected areas, in accordance with decisions of the Conference of the Parties on protected areas, while respecting the rights and full participation of indigenous and local communities.
- 1.2.6. Identify suitable practices for enhancing ecosystem sustainability with particular emphasis on degraded slopes.
- 1.2.7. Address issues related to conflict between humans and other species, especially with regard to coexistence with predators.
- 1.2.8. Examine the representativity and sustainability of existing protected areas and take measures to identify and address gaps and weaknesses, to ensure representativity with a wide ecological range.
- 1.2.9. Develop and implement measures to restore freshwater networks for migratory species, taking into account the physical barriers such as those represented by dams for fish;
- 1.2.10. Establish restoration areas where mountain biological diversity has been degraded significantly and where restoration is needed to complement and buffer the protected-area network;

*Supporting action of the Executive Secretary*

- 1.2.11. Collaborate with relevant organizations and bodies to compile and disseminate information on:
  - (a) Components of biodiversity important for conservation, in particular, on mountain endemic species, hotspots and their associated species and threatened species;
  - (b) Best practices for their conservation, sustainable use and benefit-sharing.
- 1.2.12. Compile and disseminate case-studies on methods and economic aspects of restoration of degraded mountain ecosystems and recovery of mountain endangered species.

**Goal 1.3: To promote the sustainable use of mountain biological resources**

*Actions*

- 1.3.1. Promote sustainable land-use and water resource management practices in relation to human livelihood needs (agriculture, animal husbandry, forestry, aquaculture, inland water fisheries, etc.) in mountain ecosystems, taking into account the Convention principles for sustainable use and the ecosystem approach. <sup>38/</sup>

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<sup>38/</sup> The Conference of the Parties will consider the Addis Ababa principles and guidelines on sustainable use at its seventh meeting.

- 1.3.2. Promote sustainable land-use practices, techniques and technologies, including those of indigenous/local communities and community-based management systems, for the conservation and sustainable use (including hunting and fishing) of wild flora and fauna and agro-biodiversity in mountain ecosystems, including biological pest control.
- 1.3.3. Support activities of indigenous and local communities involved in the use of traditional mountain-related knowledge, in particular concerning sustainable management of biodiversity, soil, water resources and slope.
- 1.3.4. Promote partnerships between all stakeholders, including indigenous and local communities, involved in the sustainable use of mountain biological resources. (see also goal 2.3)
- 1.3.5. Develop criteria in the framework of the draft Convention Guidelines on Biodiversity and Tourism Development in accordance with the ecological conditions of mountains ecosystems and promote the use of these guidelines. <sup>39/</sup>
- 1.3.6. Through appropriate environmental planning, manage the reduction of the negative impacts of tourism and outdoor activities on mountain ecosystems, as well as the development of associated human settlements and facilities.
- 1.3.7. Strengthen local capacity for sustainable tourism management, in order to ensure that benefits derived from tourism activities are shared by local communities, while preserving natural and cultural heritage values.
- 1.3.8. To promote the sustainable use of economically valuable wild plants and animals, as an income-generating activity for the local inhabitants.
- 1.3.9. Promote integrated watershed management practices at all levels for maintaining ecosystem integrity, soil stability on slopes, upstream-downstream inter-connections and protection against natural hazards.

**Goal 1.4: To promote access to, and sharing of benefits arising from the utilization of genetic resources related to mountain biological diversity in accordance with national legislation where it exists**

*Actions*

- 1.4.1. Strengthen the capacity of indigenous people and local communities to engage in equitable benefit-sharing arrangements, taking into account the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization, bearing in mind their voluntary character and that they do not purport to replace national legislation.
- 1.4.2. Develop methods to assess and conserve genetic resources of high economic value for promoting fair and equitable sharing of benefits, respecting national legislation on access to genetic resources.
- 1.4.3. Promote actions that are beneficial for conservation through generating employment and/or income particularly for marginal communities.

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<sup>39/</sup> At its eighth meeting in March 2003, SBSTTA recommended that the Conference of the Parties adopt the draft guidelines (recommendation VIII/5, annex). They will be considered at the seventh meeting of the Conference of the Parties.

**Goal 1.5: To maintain genetic diversity in mountain ecosystems in particular through the preservation and maintenance of traditional knowledge and practices**

*Actions*

- 1.5.1. Assess and develop strategies aimed at minimizing the threat of genetic erosion on domesticated biodiversity (crops, animals), paying particular attention to the origin of the genetic resources.
- 1.5.2. Implement provisions contained in Article 8(j) on traditional knowledge and related provisions of the Convention on Biological Diversity, taking into consideration the needs of developing countries.
- 1.5.3. Develop, validate and implement sustainable use practices for plants, animals and microorganisms at the genetic, species, population and community levels.
- 1.5.4. Respect, preserve and maintain indigenous knowledge, practices, processes and technologies to ensure conservation, sustainable use of biodiversity and sharing of benefits.

**PROGRAMME ELEMENT 2: MEANS OF IMPLEMENTATION FOR CONSERVATION,  
SUSTAINABLE USE AND BENEFIT-SHARING**

**Goal 2.1. To enhance the legal, policy, institutional, and economic framework**

*Actions*

- 2.1.1. Identify and address perverse incentives and/or policies that may impede the implementation of the Convention on Biological Diversity in mountain ecosystems, taking into account the decisions of the Conference of the Parties on incentive measures.
- 2.1.2. Develop and introduce appropriate incentives, market mechanisms and compensation mechanisms, specific for the maintenance of mountain ecosystem goods and services.
- 2.1.3. Promote the diversification of income-generating activities in support of conservation and sustainable use of mountain biological diversity and poverty reduction, including methods to share economic wealth, i.e., within mountain regions through regional development plans and between regions through “upland-lowland contracts”. <sup>40/</sup>
- 2.1.4. Improve the science/policy linkages by undertaking national and subnational scientific assessments of the causes of biodiversity loss, including making policy recommendations, in order to reduce the rate of loss of mountain biological diversity by 2010.
- 2.1.5. Develop performance measures and report on the integration of conservation and sustainable use of mountain biological diversity into institutional programmes, including sectoral policies, legal and economic frameworks.

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<sup>40/</sup> The concept was described by Professor Christian Körner, Professor of Botany at the University of Basel and Chairman of the Global Mountain Biodiversity Assessment in his keynote presentation at the eighth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice in March 2003 as follows: The upland-lowland contract concept establishes joint responsibilities between lowlanders and uplanders. Under this concept, uplanders would, for example, be responsible for taking care of the fragile upland mountain landscape to reduce potential impacts on lowlanders. In return, lowlanders may be able to provide uplanders with the products of lowland cultivated areas (food and other resources).

- 2.1.6. Strengthen legal and institutional capacity to implement the work programme on mountain biological diversity, especially through national focal points, institutes and other relevant stakeholder groups and mechanisms allowing for the coordination of sectorial authorities in implementing those activities within their areas of responsibility.
- 2.1.7. Develop and implement legal and policy strategies for land-use planning at the landscape level, taking into account elements of ecological integrity and connectivity, while emphasizing upstream-downstream relations and the prevention of losses of mountain biological diversity due to fragmentation and land-use conversion.
- 2.1.8. Support proactive planning and adaptive measures to reduce the vulnerability to both natural and human-induced hazards adversely impacting on mountain biological diversity, cultural landscapes and local communities.
- 2.1.9. Encourage the implementation of environmental and social impact assessments at sectoral, programme and project levels. Take into account cumulative impacts, to prevent the negative impacts of economic development on mountain biological diversity, by observing decision VI/7 A of the Conference of the Parties on incorporating biodiversity-related issues into environmental-impact-assessment legislation or processes and in strategic impact assessment;
- 2.1.10. Integrate aspects of mountain biological diversity into financial institutions' policies and programmes related to mountain areas;
- 2.1.11. [Promote and empower national economic budgets pertaining to mountain conservation with sufficient budget lines to achieve active implementation of the programme of work.]

*Supporting activities of the Executive Secretary*

- 2.1.12. Collate and disseminate, e.g., through the clearing-house mechanism and other appropriate means, case-studies of best practice of international and national efforts to enhance the legal, policy, institutional and economic frameworks to conserve and sustainably use mountain biodiversity.

**Goal 2.2. To respect, preserve, and maintain knowledge, practices and innovations of indigenous and local communities in mountain regions**

*Actions*

- 2.2.1. Promote the implementation of activities aimed at maintaining existing levels of agrobiodiversity, agro-ecosystems and the goods and services they provide both for meeting local demands and to ensure sources of food security.
- 2.2.2. Respect and understand the traditions and sustainable practices of the indigenous and local communities in mountain regions in ways which accommodate their needs, participation, knowledge and practices for conservation and sustainable use of mountain biodiversity (taking into account Article 8(j) of the Convention and related decisions from the Conference of the Parties and programmes of work).
- 2.2.3. Promote networking, collaborative action and participation of indigenous and local communities in decision-making processes, paying particular attention to the empowerment of women, in order to maintain mountain biodiversity and its sustainable use.

- 2.2.4. Encourage decentralization and enhance access to information for the full participation and involvement of indigenous and local communities in decisions that affect them in relation to mountain ecosystems.
- 2.2.5. Promote the implementation of activities aimed at the improvement of mountain livelihoods, poverty eradication and the maintenance of cultural identity, in order to achieve sustainable use of mountain biological diversity.
- 2.2.6. Develop capacity-building measures and information-sharing to facilitate the involvement of indigenous and local communities, with their prior informed consent, in the management, conservation, and sustainable use of mountain biological diversity.

**Goal 2.3. To establish regional and transboundary collaboration and the establishment of cooperative agreements**

*Actions*

- 2.3.1. Promote integrated transboundary cooperation, supported by legislation, where appropriate, and strategies for sustainable activities on mountain ranges. Cooperative arrangements should cover specific thematic issues such as landscape, soil, wetland, watershed, rangeland, mining, protected areas and wildlife management, agriculture, forestry, transportation, energy and tourism.
- 2.3.2. Promote and strengthen regional and transboundary cooperation for research, adaptive management, and exchange of expertise to improve the conservation and management of mountain biodiversity, e.g., Global Mountain Biodiversity Assessment (GMBA) and International Centre for Integrated Mountain Development (ICIMOD).
- 2.3.3. Promote the appreciation and conservation of mountain biological diversity as a means of reducing human conflict, i.e., through peace parks.
- 2.3.4. Strengthen collaboration and synergies between the work programmes of the Convention on Biological Diversity and other global conventions and agreements on climate change, desertification, transboundary pollution, invasive alien species, wetlands and endangered species, with a special focus on mountain systems and their biological diversity, including through joint programmes of work. Also strengthen collaboration with the International Partnership for Sustainable Development in Mountain Regions and regional conventions on mountains.
- 2.3.5. Encourage the development of new methodologies and new mechanisms, such as the upland-lowland contract, to implement cooperative agreements that sustain mountain biodiversity and the provision of goods and services.

**PROGRAMME ELEMENT 3: SUPPORTING ACTIONS FOR CONSERVATION,  
SUSTAINABLE USE AND BENEFIT-SHARING**

**Goal 3.1. To develop work on identification, monitoring and assessment of mountain biological diversity**

*Actions*

- 3.1.1. Promote the monitoring of susceptible areas subject to climate change.

- 3.1.2. Conduct mountain surveys in priority areas, for conservation and sustainable use of mountain biological diversity. These surveys should consider inventories at genetic, species and ecosystem levels.
- 3.1.3. Apply, whenever appropriate, the programmes of work of the global initiatives such as the Global Taxonomy Initiative, Millennium Ecosystem Assessment and the Global Invasive Species Programme.
- 3.1.4. Support the work of the Global Mountain Biodiversity Assessment.
- 3.1.5. Use national biodiversity strategies and action plans and other national reports to the Convention, for monitoring and assessment of mountain biodiversity.

**Goal 3.2. To improve knowledge on and methods for the assessment and monitoring of the status and trends of mountain biological diversity, based on available information.**

*Actions*

- 3.2.1. Develop key abiotic, biotic and socio-economic indicators of status and change of mountain ecosystems.
- 3.2.2. Develop and select international, regional and national criteria and, where appropriate, quantifiable indicators for mountain biological diversity, taking into account the work of the Convention on monitoring and indicators and the knowledge held by indigenous and local communities, together with other experience of sustainable mountain management.
- 3.2.3. Develop methodologies for assigning value to the ecological services provided by land management systems in order to develop economic-incentive mechanisms for compensating the poor and vulnerable mountain communities.
- 3.2.4. Assess and address the changing status of both local and long-range pollution and global climate change issues with special relevance to mountain ecosystems.
- 3.2.5. Assess and address fragmentation and impacts on biodiversity, by changing land-use management practices, e.g., land abandonment, mining.
- 3.2.6. Assess and address the positive and the negative impacts of tourism and outdoor activities in mountain ecosystems.
- 3.2.7. Assess and address natural dynamic processes in mountain ecosystems and the need to preserve areas for natural dynamic processes.
- 3.2.8. Develop monitoring systems based on key national and subnational indicators of changes in mountain ecosystem structure and function taking into account existing monitoring expert knowledge and systems as well as relevant work and processes on indicators.

**Goal 3.3. To improve the infrastructure for data and information management for accurate assessment and monitoring of mountain biological diversity and develop associated databases**

*Actions*

- 3.3.1. Enhance and improve the technical capacity at a national level to monitor mountain biological diversity, benefiting from the opportunities offered by the clearing-house

mechanism of the Convention on Biological Diversity, including the development of associated databases as required at the global scale to facilitate exchange.

- 3.3.2. Promote open access as Parties consider appropriate, to existing information on biodiversity and related databases and sharing through the clearing-house mechanism of the Convention on Biological Diversity and other appropriate means.
- 3.3.3. Encourage mapping and inventory of biodiversity and of land-use changes, using analogue and digital databases (remote-sensing, geographic information system) for scientific purposes and for supporting decision-making.

*Supporting activity of the Executive Secretary*

- 3.3.4. Enhance the capacity of the clearing-house mechanism to facilitate the implementation of goal 3.3.

**Goal 3.4. To improve research, technical and scientific cooperation, and other forms of capacity-building related to mountain biological diversity**

*Actions*

- 3.4.1. Conduct long-term research on species adaptability to changing environmental conditions under climatic or human-induced global change, in relation to mountain biological diversity.
- 3.4.2. Conduct key research on the role and importance of mountain biological diversity and ecosystem functioning, considering ecosystem components, structure, function, processes and services.
- 3.4.3. Develop and support research to assess the role of soil biological diversity and the diversity of protective vegetation cover for the stability and safety of mountain areas and watershed protection, e.g., avoidance of human-induced erosion, landslides and avalanches.
- 3.4.4. Initiate mechanisms and develop collaborative research/scientific programmes of mutual interest among countries with mountains, especially those having common problems and comparable socio-cultural conditions.
- 3.4.5. Foster exchange of experiences and knowledge of sustainable development and ecosystem vulnerability among countries with mountains, taking into account the vulnerability of social-cultural systems and communities.
- 3.4.6. Conduct interdisciplinary, key research programmes on mountain biological diversity, and its relationship to ecosystem structure and functions, including communities-based management, with special reference to transitional zones linking upland-lowland ecosystems such as ecotones, hotspots, buffer areas and corridors.
- 3.4.7. Develop capacity and enhance opportunities for community-based research and monitoring to conserve mountain biodiversity and provide greater benefits to mountain communities.
- 3.4.8. Develop scientific and technical coordination mechanisms at national level for identification of research priorities and for optimising the efficient utilization of research results;

*Supporting activity of the Executive Secretary*

- 3.4.9. Explore and quantify the benefits of a diverse, intact vegetation cover in catchments for water and hydroelectric yield.

**Goal 3.5. To increase public education, participation and awareness in relation to mountain biological diversity**

*Actions*

- 3.5.1. Promote educational and capacity-building systems tailored to the specific conditions of mountain ecosystems, such as workshops, courses, study tours, community exchanges, communications from the Convention on Biological Diversity, education and publications efforts, in line with the Global Initiative on Communication, Education and Public Awareness (decision VI/19 of the Conference of the Parties).
- 3.5.2. Increase awareness of the actual and potential contribution of knowledge, practices and innovations of indigenous and local communities to conserve and sustainably use mountain biological diversity, i.e., biodiversity documentation, inventories by community and other appropriate levels.
- 3.5.3. Encourage the implementation of sustainable tourism activities aimed at increasing awareness, respect and knowledge for mountain biological diversity, including knowledge of the local, natural and cultural landscapes.
- 3.5.4. Increase dissemination of knowledge on upland-lowland interactions.
- 3.5.6. Further promote the education of women and their role in the conservation and dissemination of traditional knowledge.
- 3.5.7. Enhance awareness among policy makers and planners on the importance and contribution of mountain ecosystems in poverty eradication programmes;
- 3.5.8. Increase broad-based awareness of the values of mountain biological diversity through, *inter alia*, national and local public awareness campaign.

**Goal 3.6. To promote the development, validation, and transfer of appropriate technologies for mountain ecosystems, including indigenous technologies in accordance with Article 8(j) of the Convention on Biological Diversity and related provisions**

*Action*

- 3.6.1. Implement the programme of work on technology transfer, <sup>41/</sup> giving particular attention to matters relating to the conservation and sustainable use of mountain biodiversity.

*Supporting activities of the Executive Secretary*

- 3.6.2. Document best-practices and appropriate technologies and innovative approaches to managing biodiversity.
- 3.6.3. In collaboration with relevant organizations, provide Parties with access to appropriate and latest technologies and innovations relating to mountain biodiversity.

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<sup>41/</sup> To be considered under item 25 below.



## 24. *Protected areas (Articles 8 (a) to (e))*

*Paragraphs 1 and 4-33 of the following draft decision are taken from paragraph 6 of SBSTTA recommendation IX/4. Paragraphs 2 and 3 reproduce paragraphs 4 and 5 of the same recommendation. The annex is taken from the annex to the note by the Executive Secretary on protected areas (UNEP/CBD/COP/7/15), prepared in accordance with paragraph 7 of the same recommendation.*

### *The Conference of the Parties*

1. *Confirms* that efforts to establish and maintain systems of protected areas and areas where special measures need to be taken to conserve biological diversity in line with Article 8 on *in situ* conservation and other relevant articles of the Convention, are essential for achieving, in implementing the ecosystem approach, the three objectives of the Convention and thus contributing to achieving the 2010 target contained in the Strategic Plan of the Convention and in the Plan of Implementation of the World Summit on Sustainable Development, and to achieve sustainable development and the attainment of the Millennium Development Goals;

2. *Welcomes* the pledge made by the consortium of international non-governmental organizations <sup>42/</sup> on the occasion of the ninth meeting of SBSTTA to provide and mobilize financial, technical and other support for the implementation of the programme of work on protected areas under the Convention and thus contribute to the achievement of the 2010 target pursuant to decision VI/26; and invites other donor agencies, intergovernmental organizations, private sector, and others to make similar pledges.

3. *Also welcomes* the proposal made by the same consortium for the establishment of a cooperative partnership on protected areas of public agencies and non-governmental organizations that could contribute to the operationalization of the programme of work with focused and coordinated support for capacity building, mobilization of additional funding, technical and other assistance.

4. [*Considers* options on how to stipulate the commitments of Parties to targets and timetables in the present programme of work concerning protected areas in a comprehensive regime]; <sup>43/</sup>

5. [*Recognizes* that Parties should implement the programme of work on protected areas in the context of their national priorities and needs. Activities implemented domestically by Parties will be prioritized based on country and regionally specific needs, national determination, legislation, circumstances and priorities concerning protected areas issues, and their national protected areas and biodiversity strategies. Inclusion of an activity does not mean relevance of that activity to all Parties];

6. [*Emphasizes* that the targets should be viewed as a flexible framework within which national and/or regional targets may be developed, according to national priorities and capacities, and taking into account differences in protected areas between countries;

7. *Invites* Parties and Governments to develop national and/or regional targets, and, as appropriate, to incorporate them into relevant plans, programmes and initiatives, including national biodiversity strategies and action plans;

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<sup>42/</sup> BirdLife International, Conservation International, The Nature Conservancy, Wildlife Conservation Society, WWF, and World Resources Institute.

<sup>43/</sup> Bracketed text in the recommendation indicates lack of consensus at the ninth meeting of SBSTTA.

8. *Emphasizes* the need for capacity-building, particularly in developing countries, small island developing States, and countries with economies in transition, in order to enable them to implement the programme of work;

9. *Invites* Parties, other Governments, the financial mechanism, and funding organizations to provide adequate and timely support to the implementation of the programme of work, especially by developing country Parties, in particular the least developed countries and small island developing States among them, and Parties with economies in transition;]

10. [*Underlines* the importance of conservation of biological diversity not only within but also outside protected areas by ensuring sustainable use of all natural resources in order to achieve a significant reduction of the rate of biodiversity loss by 2010 and therefore also calls for increased efforts to integrate biodiversity conservation and restoration aspects into sectoral policies and programmes.]

11. *Considers* options to further develop the concept of ecological networks, and other related concepts in order to follow up the WSSD Plan of Implementation and the conclusions of Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010;

#### ***Status and trends of, and threats to, protected areas***

12. *Welcomes* the documents on status and trends of, and threats to, protected areas prepared by the Executive Secretary (UNEP/CBD/SBSTTA/9/5);

13. *Agrees* that the indicative list of categories set out in Annex I of the Convention should guide the selection of protected areas and areas where special measures need to be taken to conserve biological diversity;

14. *Recognizes* that at the global level the number and extent of protected areas has been increasing in the past decades, so that around 11 per cent of the world's land surface is currently in protected status. However, existing systems of protected areas are not representative of the world's ecosystems, habitat types and biomes, species and marine areas, of which less than 1 per cent are protected, are particularly under-represented; and agrees [on] actions [need] to be taken to fill these gaps.

15. *Recognizes* that the lack of knowledge and awareness of the threat to, and the role and value, of biodiversity, insufficient financial support, poor governance, ineffective management and insufficient participation, pose fundamental barriers to achieving the protected areas objectives of the Convention on Biological Diversity;

#### ***Overall objective***

16. *Adopts* the proposed programme of work on protected areas annexed to the present decision;

#### ***Programme of work***

17. *Adopts* the elements, goals and targets of the programme of work on protected areas included in the present document and develops and adopts specific activities taking as basis the activities contained in the report of the Ad Hoc Technical Expert Group and submissions made at the ninth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice;

18. *Affirms* that any decisions adopted on the basis of recommendation VIII/3 B of the Subsidiary Body on Scientific, Technical and Technological Advice, on marine and coastal protected areas, be considered an integral part of the Convention's work on protected areas;

19. *Urges* Parties, other Governments and organizations to implement the programme of work, and further *urges* Parties to incorporate the elements of the programme of work into their national biodiversity strategies and action plans;

20. *Recognizes* that effective implementation of the programme of work to meet the 2010 target will require new and additional financial and technical resources, particularly for the developing countries and countries with economies in transition and small island developing States, and *recognizes* in this context the recent substantial replenishment of the Global Environment Facility;

21. *Recalls* the obligations of Parties towards indigenous and local communities in accordance with Article 8(j) of the Convention and [national legislation] and *notes* that the establishment and management of protected areas requires particular attention. [Respect for land tenure, prior informed consent and indigenous territorial rights, where applicable, are critical in this regard];

22. *Urges* Parties to elaborate outcome-oriented targets for the extent, representativeness and effectiveness of their national systems of protected areas, taking into account the Strategic Plan of the Convention, the Global Strategy for Plant Conservation, the Plan of Implementation of the World Summit on Sustainable Development and the Millennium Development Goals, as well as any targets adopted by the Conference of the Parties to facilitate monitoring of the progress towards achievement of the 2010 target;

23. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to develop scientific and technical advice on measures required to achieve a truly representative national and regional systems of protected areas, integrated into a global network, in order to contribute to the 2010 target and longer-term purpose of the Strategic Plan. This work should draw upon the input of Parties and other Governments, the work of relevant United Nations organizations and conventions, the work of the World Commission on Protected Areas, the outcomes of the Fifth IUCN World Congress on Protected Areas, and the work of relevant local and indigenous communities, and non-governmental organizations;

24. *Decides* to establish [an ad hoc technical expert group] [an ad hoc open ended working group] on protected areas to support and review implementation of the programme of work and report to the Conference of the Parties; <sup>44/</sup>

25. *Decides* to assess at [the eighth and tenth meetings of the Conference of the Parties] [at each meeting of the Conference of the Parties until 2010], the results of the above review, and to determine the need for possible stricter measures [and additional financial and technical support];

26. *Suggests* the following tasks need to be explored:

[(a) To explore options for cooperation for the establishment of protected areas on areas beyond national jurisdiction, consistent with international law including the United Nations Convention on the Law of the Sea, [with the consent and cooperation of all coastal States;]]

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<sup>44/</sup> Detailed terms of reference of the ad hoc open ended working group to be elaborated by the Conference of the Parties at its seventh meeting.

(b) To explore options of technical, financial and other support including self financing, in accordance with Article 8(m) of the Convention, for the establishment of a national and regional systems of protected areas, and their integration into global network including identification and removal of barriers to the creation of protected areas, and the removal of perverse incentives for unsustainable activities, pursuant to decision VI/15, on incentive measures;

(c) To develop a “tool kit” with criteria, guidelines, and definitions to provide assistance to Parties for the identification, designation, management, notification, monitoring and evaluation of protected areas, including ecological networks with special regard to stakeholder involvement and benefit sharing mechanisms;

(d) To review reports from the Parties, academic and scientific organizations, civil society and others on progress in the implementation of the programme of work on protected areas, compiled by the Executive Secretary.

27. *Urges* Parties and *invites* other Governments, and relevant organizations to report to the Executive Secretary on implementation of this decision and the programme of work prior to [the eighth and tenth meetings of the Conference of the Parties] [each meeting of the Conference of the Parties until 2010];

28. *Recognizes* the value of a single international classification system for protected areas and the benefit of providing information that is comparable across countries and regions and therefore *welcomes* the ongoing efforts of the IUCN World Commission on Protected Areas to refine the IUCN system of categories and *encourages* Parties, other Governments and relevant organizations to assign protected-area management categories to their protected areas, providing information consistent with the refined IUCN categories for reporting purposes;

29. *Invites* the World Conservation Monitoring Centre of the United Nations Environment Programme and the new consortium of international organizations to further develop the World Database on Protected Areas in order to assist the monitoring of progress towards the overall objective of this decision, and *urges* Parties, other Governments and relevant organizations to provide up-to-date information for the Database;

30. *Invites* the consortium referred to in paragraphs 4 and 5 above to report to the Conference of the Parties on the progress in supporting the programme of work on protected areas;

*Suggested supporting activities of the Executive Secretary*

31. *Requests* the Executive Secretary to update information on status and trends of, and threats to, protected areas as part of the reviews of the implementation of the thematic programmes of work, in collaboration with Parties and relevant organizations, in particular the IUCN World Commission on Protected Areas;

32. *Requests* the Executive Secretary to strengthen collaboration with other organizations, institutions and conventions with a view to supporting implementation of the activities contained in the programme of work, promoting synergies and avoiding unnecessary duplications, and to establish a liaison group of relevant organizations including the World Heritage Convention, the Ramsar Convention on Wetlands, the Man and Biosphere programme of the United Nations Educational, Scientific and Cultural Organization, relevant regional conventions and other organizations to facilitate this objective;

33. *Further requests* the Executive Secretary to:

(a) Compile information received from Parties, other Governments and relevant organizations and bodies on the implementation of the programme of work, and transmit this information to the [ad hoc open ended working group] [ad hoc Technical expert group];

(b) Compile and disseminate information linking protected areas to sustainable development, poverty eradication and the Millennium Development Goals;

(c) Establish in collaboration with the IUCN World Commission on Protected Areas a roster of experts to help respond to requests by Parties for assistance in implementing the programme of work on protected areas and to draw experts from this roster, at the request of countries, to assess their steps undertaken to implement the programme of work on protected areas with a view to identifying the needs of those countries in the further implementation of the programme of work.

#### *Annex*

### **[PROPOSED ELEMENTS OF A PROGRAMME OF WORK ON PROTECTED AREAS**

#### **I. INTRODUCTION**

1. *In situ* conservation, sustainable use of biological diversity and the fair and equitable sharing of benefits arising from the use of genetic resources are dependent upon properly maintaining sufficient natural habitat. Protected areas, together with conservation, sustainable use and restoration initiatives in the wider land-and seascape are essential components in national and global biodiversity conservation strategies. They provide a range of goods and ecological services while preserving natural and cultural heritage. They can contribute to poverty alleviation by providing employment opportunities and livelihoods to people living in and around them. In addition, they also provide opportunities for research including for adaptive measures to cope with climate change, environmental education, recreation and tourism. As a result, most countries have developed a system of protected areas. The protected-area network now covers about 11 per cent of Earth's land surface. Less than 1 per cent of the Earth's marine area is covered. The central role of protected areas in implementing the objectives of the Convention has been repeatedly emphasized in decisions of the Conference of Parties. They form a vital element of the various thematic programmes of work, namely, marine and coastal biological diversity, inland water ecosystems biological diversity, dry and sub-humid lands biological diversity, forest biological diversity and mountain biological diversity.

2. Given their many benefits, protected areas are important instruments for meeting the Convention's targets of significantly reducing the rate of biodiversity loss by 2010. However, according to the best available data on the status and trends on protected areas (see UNEP/CBD/SBSTTA/9/5), the current global systems of protected areas are not sufficiently large, sufficiently well-planned, nor sufficiently well-managed to maximize their contribution to preventing global biodiversity loss. Therefore, there is an urgent need to take action to improve the coverage, representativeness and management of protected areas nationally, regionally and globally.

3. The Convention on Biological Diversity works with many partner organizations, conventions and initiatives in facilitating conservation and sustainable use through protected areas. These include the IUCN World Commission on Protected Areas (WCPA); the UNEP World Conservation Monitoring Centre (UNEP-WCMC); the International Maritime Organization (IMO); the World Resources Institute (WRI); The Nature Conservancy (TNC); the World Wide Fund for Nature (WWF); the UNESCO Man and Biosphere programme (MAB); the UNESCO World Heritage Convention; the Convention on

Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention); the Convention on the Conservation of Migratory Species of Wild Animals and the associated agreements; the Convention on Trade in Endangered Species of Wild Fauna and Flora (CITES); the Global Environment Facility (GEF); and various regional agreements and programmes.

4. The present programme of work on protected areas features goals and activities that are specific to protected areas. Some elements of existing programmes of work on forests, inland waters, dry and sub-humid lands, coastal and marine and mountain biological diversity also apply to protected areas. The goals and activities contained in these existing programmes of work should also be applied and implemented, whenever appropriate for their respective protected areas.

5. The World Summit on Sustainable Development, in its Plan of Implementation, has stated that the achievement of the 2010 target requires new and additional financial and technical resources for developing countries, and that the progress in establishment and maintenance of a comprehensive, effectively managed, and ecologically representative global system of protected areas is of crucial importance for achieving the 2010 target. The WSSD decision includes the commitment to increase funding for activities in this field, recognizing that funding for this purpose generally should consist of a mixture of national and international resources and include the whole range of possible funding instruments such as public funding, debt for nature swaps, private funding, remuneration from services provided by protected areas, and taxes and fees at the national level for the use of ecological services.

## **II. OVERALL PURPOSE AND SCOPE OF THE PROGRAMME OF WORK**

6. The overall purpose of the programme of work on protected areas is to support the establishment and maintenance by 2010 of a comprehensive, effectively managed, and ecologically representative global system of networks of protected areas. The ultimate result will be to significantly reduce biological diversity loss at the international, regional, national and sub-national levels through the implementation of the three main objectives of the Convention on Biological Diversity, and to contribute to poverty alleviation and sustainable development, thereby supporting the objectives of the Strategic Plan of the Convention, the World Summit on Sustainable Development Plan of Implementation and the Millennium Development Goals.

7. The programme of work consists of four interlinked elements intended to be mutually reinforcing. It was developed bearing in mind the need to avoid unnecessary duplication with existing thematic work programmes and other ongoing initiatives of the Convention on Biological Diversity, and to promote synergy and coordination with relevant programmes of various international organizations. Parties are encouraged to apply where appropriate the objectives and activities from these thematic work programmes and the work on cross-cutting issues.

8. The Convention's work on protected areas takes into account the ecosystem approach. The ecosystem approach is the primary framework for action under the Convention, and its application will help reach a balance between the three objectives of the Convention. Multiple-use protected areas applied in an ecosystem approach context can, for example, help meet specific goals relating to conservation, sustainable use and the fair and equitable sharing of benefits arising from the use of genetic resources. The ecosystem approach provides a framework within which the relationship of protected areas to the wider landscape and seascape can be understood, and the goods and services flowing from protected areas can be valued. In addition, the establishment and management of protected area systems in the context of the ecosystem approach should not simply be considered in national terms, but where the relevant ecosystem extends beyond national boundaries, in ecosystem or bioregional terms as well. This presents a strong argument for transboundary and high-seas protected areas.

9. The programme of work is intended to assist Parties in establishing national programmes of work with targeted goals, actions, specific actors, time frame, inputs and expected measurable outputs. Parties may select from, adapt, and/or add to the goals and actions suggested in the current programme of work according to particular national and local conditions and their level of development. Implementation of this programme of work should take into account the ecosystem approach of the Convention on Biological Diversity. In implementing the programme of work, Parties are encouraged to pay due regard to the social, economic and environmental costs and benefits of various options. In addition, Parties are encouraged to consider the use of appropriate technologies, source of finance and technical cooperation, and to ensure, through appropriate actions, the means to meet the particular challenges and demands of their protected areas.

10. Bearing in mind the three objectives of the Convention and the need to approach work on protected areas in a balanced manner that pays due attention to conservation, sustainable use, and the equitable sharing of benefits arising from the utilization of genetic resources, the Parties may wish to establish the following programme of work on protected areas:]

**PROGRAMME ELEMENT 1: Direct actions for planning, selecting, establishing, strengthening, and managing, protected area systems and sites**

**Goal 1.1 – To establish and strengthen national and regional systems of protected areas integrated into a global network as a contribution to globally agreed goals.**

**Target:** By 2010, terrestrially and 2012 in the marine area, a global network of comprehensive, representative and effectively managed national and regional protected area system is established as a contribution to (i) the goal of the Strategic Plan of the Convention and the World Summit on Sustainable Development of achieving a significant reduction in the rate of biodiversity loss by 2010; (ii) the Millennium Development Goals – particularly goal 7 on ensuring environmental sustainability; and (iii) the Global Strategy for Plant Conservation.

*[Definition:* Systems of protected areas and ecological networks should consist of a system of core areas, corridors, stepping stones and buffer zones designed and managed in such a way as to maintain or restore ecosystem services, preserve biological diversity and allow a suitable and sustainable use of natural resources. It is recognized throughout the programme of work that the term “national” may mean either national or sub-national in some countries. A differentiated system comprising a broad range of protection levels and intensities of land use compatible with conservation objectives should be put in place. Protected areas should not be seen as being isolated and should be integrated into broader landscapes, seascapes and sectors.

***Suggested activities of the Parties <sup>45/</sup>***

1.1.1. By 2006, conduct national-level [*nationally driven*] analyses of options for setting time-bound, measurable protected area targets that contribute to the above globally agreed conservation goals [*and establish suitable national level protected area targets based on such analyses*] Suggested national-level measures of progress toward targets include: total hectares under protected status, percent of ecoregions and major habitat types under protected status, status assessment of ecological integrity of protected areas, and numerical targets for species-at-risk.

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<sup>45/</sup> The bracketed italicized text has been incorporated on the basis of submissions by Parties as requested by SBSTTA in paragraph 7 of the recommendation IX/4.

- 1.1.2. As a matter of urgency, by 2005 conduct feasibility studies to establish or expand protected areas in any remaining large, intact or relatively unfragmented or highly irreplaceable natural areas under high threat, as well as protected areas securing globally critical endangered species [*as per IUCN criteria*], and endangered species confined to a single site, [*endemic species, commercialized species, cultural diversity*] and largely unprotected freshwater and marine ecosystems, paying particular attention to areas beyond national jurisdiction.
- 1.1.3. Drawing upon existing site selection methodologies, develop by 2005 a framework for assessing protected area system gaps at the national and ecoregional levels, including marine and coastal protected areas. This should take into account different levels of biodiversity, namely genetic, species, habitat, ecosystem and landscape. The framework should take into account Annex I of the Convention on Biological Diversity and other relevant international conventions, along with such criteria as irreplaceability of target biodiversity components, minimum size and viability requirements, connectivity (including corridors), intactness, ecological processes and ecosystem services. The framework should contain lists of species and habitats [*including endangered, species and habitats, endemic species and species having commercial value*] for which conservation measures are considered necessary.
- 1.1.4. By 2006, conduct national-level reviews of existing and potential forms of conservation including innovative models of governance for protected areas that need to be recognized and promoted through legal, policy, financial institutional and community mechanisms, such as protected areas run by government agencies at various levels, co-managed protected areas, private protected areas, community conserved areas, indigenous conservation areas and micro-reserves.
- 1.1.5. Drawing upon the above-mentioned reviews, conduct gap assessments and develop, by 2006, national plans for filling identified system gaps (including site selection for establishment of new sites, expansion of existing sites, restoration and rehabilitation of degraded and semi-natural areas, and recovery of endangered species).
- 1.1.6. By 2008, designate the protected areas as identified through the gap analysis (including precise borders and maps) and complete by 2010 [*terrestrially and 2012 in the marine environments*] the establishment of comprehensive and representative national [*and regional*] systems of protected areas, as part of national and regional ecological networks.
- [1.1.7. *Use management system of mosaics of protected areas as instruments for implementing national systems.*]
- [1.1.8. *Encourage the establishment of categories of protected areas that benefit indigenous and local communities embodying traditional lifestyles.*]
- 1.1.7. [1.1.9] Increase support for and participation in existing international [*and regional*] systems of protected areas, including the Ramsar Convention on Wetlands, the World Heritage Convention and the UNESCO MAB programme.

***Suggested supporting activities of the Executive Secretary***

- 1.1.8. [1.1.10] Prepare and disseminate to Parties a technical document providing a framework for national-level, time-bound, measurable protected areas targets as referenced above.

- 1.1.9. [1.1.11] Identify options for quantitative and qualitative protected areas targets and indicators that should be used at the global level that could contribute to the 2010 target and the Millennium Development Goals.
- 1.1.10. [1.1.12] Invite relevant international and regional organizations to offer their assistance to the Parties in conducting national-level rapid assessments.
- 1.1.11. [1.1.13] Compile and disseminate through the clearing-house mechanism relevant approaches, frameworks and tools for system planning and promote and facilitate the exchange of experiences and lessons learned in applying and adapting them to different ecological and social settings.

*Main partners*

Parties, UNEP-WCMC, UNESCO-MAB, UNESCO-World Heritage Centre, UNDP, Ramsar Convention, IUCN-WCPA.

*Other collaborators*

Relevant international, regional and national organizations such as The Nature Conservancy, WWF, WRI, intergovernmental organizations [*and other interested organizations*]

**Goal 1.2 – To integrate protected areas into broader land- and seascapes and sectors so as to maintain ecological structure and function**

**Target:** By 2015, all protected areas are integrated into the wider land- and seascape protected area systems, and relevant sectors, by applying the ecosystem approach and taking into account ecological connectivity and the concept, where appropriate, of ecological networks.

[An ecologically representative and coherent mix of land and/or sea areas that may include protected areas, corridors and buffer zones, and which provides connectivity for species and ecosystems in order to achieve their satisfactory conservation status. Areas within an ecological network may have different types of protection.

***Suggested activities of the Parties***

- 1.2.1 Evaluate by 2006 national and sub-national lessons learned on specific efforts to integrate protected areas and biodiversity into broader landscapes, [*and seascapes*] and sectoral plans and strategies such as poverty reduction strategy papers. [*This also includes integrating marine and coastal management with land and river basin activities.*]
- 1.2.2 Identify and implement, by 2008, practical steps for improving such integration, including policy, legal, planning and other measures.
- 1.2.3 Design and manage buffer zones around protected areas, in order to help maintain their ecological integrity, [*and where appropriate*] as part of [*components of ecological corridors and*] ecological networks.

- 1.2.4 Restore habitats, as appropriate, as a contribution to building ecological networks[ *and integrate habitat restoration into national systematic planning process*].
- 1.2.5 Employ, where appropriate, technical innovations in agroforestry, eco-agriculture and sustainable fisheries management to strengthen land- and seascape approaches.

***Suggested supporting activities of the Executive Secretary***

- 1.2.6 Organize by 2005 an international workshop on integration of biodiversity and protected areas into relevant sectoral and spatial plans, and disseminate results to all Parties and relevant partners and collaborators
- 1.2.7 Prepare an updated format for the second thematic reports on protected areas, covering, *inter alia*, integration of protected areas and national systems of protected areas into relevant sectors and spatial planning.
- [1.2.8 *Collate and disseminate case-studies of best practice of international, national and sub-national efforts to implement the ecosystem approach in relation to protected areas*]

*Main partners*

Parties, UNESCO-MAB, IUCN-WCPA, Ramsar [*CMS*] and other environmental conventions

*Other collaborators*

Relevant international, regional and national organizations and intergovernmental organizations [*and other interested organizations*]

**Goal 1.3 – To establish and strengthen regional networks, transboundary protected areas (TBPAs) and collaboration between neighbouring protected areas across national boundaries**

**Target:** Establish and strengthen by 2010, <sup>46/</sup> transboundary protected areas, other forms of collaboration between neighbouring protected areas across national boundaries and regional networks to the extent necessary to achieve goal 1.1, to enhance the conservation and sustainable use of biological diversity, implementing the ecosystem approach, and improving international cooperation.

***[Suggested activities of the Parties***

- 1.3.1 Collaborate with other parties and relevant partners to establish effective regional networks of protected areas , particularly around shared ecological resources identified as conservation priorities (e.g. barrier reef systems, large scale river basins, mountain systems, large remaining forest areas), and establish multi-country coordination mechanisms as appropriate to support the establishment and effective long term management of such networks.
- 1.3.2 Collaborate with other Parties to establish and manage protected areas on the high seas and other areas beyond national jurisdiction[ *in accordance with applicable law, including the UN Convention on the Law of the Sea*].

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<sup>46/</sup> References to marine protected area networks to be consistent with the target in the WSSD plan of implementation.

- 1.3.3 Establish, where appropriate, new TBPAs with adjacent Parties and countries, and strengthen effective collaborative management of existing TBPAs.
- 1.3.4 Harmonize relevant national management practices with a view to facilitating the establishment and management of TBPAs.

***Suggested supporting activities of the Executive Secretary***

- 1.3.5 Collaborate and consult with *inter alia* the Secretariat of the Ramsar Convention, World Heritage Centre and UNESCO MAB, Ramsar and CMS Conventions, UNEP-WCMC, IUCN-WCPA, local and indigenous communities, NGOs, private sector companies and funding agencies for developing guidelines for establishing transboundary protected areas and collaborative management approaches, as appropriate, for dissemination to Parties, taking into account the existing IUCN-WCPA Guidelines on TBPAs.
- 1.3.6 Prepare, for the eighth meeting of the Conference of the Parties, a comprehensive inventory of existing adjacent protected areas on either side of international borders, and other transfrontier land areas suitable for the establishment of transboundary protected areas, with particular attention to such areas lying within biodiversity hotspots.
- 1.3.7. Compile and disseminate information on regional networks of protected areas, including , as far as possible, their geographical distribution, their historical background, their role and the partners involved.
- [1.3.8 *Review the potential for regional cooperation under the Convention on Migratory Species and CITES with a view to linking of protected area networks across international boundaries and potentially beyond national jurisdiction through the establishment of migratory corridors for key species.*]

*Main partners*

Parties, UNESCO-MAB, World Heritage Centre, IUCN-WCPA, Ramsar, CMS, CITES and other environmental conventions

*Other collaborators*

Relevant international, regional and national organizations and intergovernmental organizations [*and other interested organizations*]

**Goal 1.4 – To substantially improve site-based protected area planning and management:**

**Target:** All protected areas to have effective management in existence by 2012, using highly participatory and science-based site planning processes that incorporate clear biodiversity objectives, targets, management strategies and monitoring programmes, drawing upon existing methodologies.

***[Suggested activities of the Parties***

- 1.4.1 Create a highly participatory process – involving all major relevant stakeholders – as part of site-based planning, and use relevant ecological and socio-economic data required to develop effective planning processes.
- 1.4.2 Identify measurable conservation targets for sites, such as genomes, species, natural communities, ecosystems, and ecological processes, drawing on criteria laid out in Annex I to the Convention on Biological Diversity and other relevant criteria.
- 1.4.3 Identify and rank the relative importance of major threats to defined conservation targets (including both proximate stresses and underlying sources), and identify strategies to address critical threats.
- 1.4.4 Include in the site-planning process an analysis of opportunities for the protected area to contribute to conservation and sustainable use of biodiversity at local and regional scales.
- 1.4.5. As appropriate, but no later than 2012, develop or update strategic management plans for protected areas, built on the above process, to better achieve conservation [*and sustainable development*] objectives.
- [1.4.6 *Encourage projects for the integration and sustainable use of surrounding areas.*]
- [1.4.7 *Encourage and disseminate models of protected areas as a focus of local or regional development with a view to poverty reduction and benefit sharing.*]
- 1.4.6 [1.4.8] Utilize as appropriate the full range of governance systems as well as traditional knowledge and practices of indigenous peoples and local communities.
- 1.4.7 [1.4.9] Ensure equitable distribution of costs and benefits arising from the establishment and management of protected areas.

***Suggested supporting activities of the Executive Secretary***

- 1.4.8 [1.4.10] Compile and disseminate through the clearing-house mechanism current relevant approaches, frameworks and tools for site planning and promote and facilitate the exchange of experiences and lessons learned in applying and adapting them in different ecological and social settings.
- 1.4.9 [1.4.11] Assist Parties, multilateral agencies, non-governmental organizations and other relevant actors to utilize such tools in their relevant site-based work.

***Main partners***

Parties, IUCN-WCPA, UNEP-WCMC, UNESCO MAB, UNESCO World Heritage Centre, Ramsar and other international conventions.

*Other collaborators*

Relevant international, regional and national organizations, WWF, The Nature Conservancy, Birdlife International, and other intergovernmental organizations [*and other interested organizations*]

**Goal 1.5 – To prevent and mitigate the negative impacts of key threats to protected areas**

**Target:** By 2008, effective mechanisms for identifying and preventing, and/or mitigating the negative impacts of key threats to protected areas are in place.

**[Suggested activities of the Parties**

1.5.1 Apply, as appropriate, but not later than 2010 – timely, strategic environmental impact assessments to any plan or project with the potential to have effects on protected areas, and ensure timely information flow among all concerned parties to that end, taking into account decision VI/7 A of the Conference of the Parties on guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or processes and in strategic environmental assessments.

1.5.2 Develop, by 2010, liability regimes, incorporate the polluter-pays principle or other appropriate mechanisms in relation to damages to protected areas, at national and international levels.

[1.5.3 *Establish mechanisms to ensure compensation for activities that have a negative impact on protected areas.*]

[1.5.4 *Establish national plans for the environmental recovery of protected areas and their surroundings.*]

[1.5.5 *Develop rules regarding proposed activities that may increase risks associated with alien invasive species in protected areas, especially those that are in IUCN categories I,II, and III.*]

[1.5.6 *Undertake measures for restoration and rehabilitation of degraded areas both within and outside protected areas by 2010.*]

***Suggested supporting activities of the Executive Secretary***

1.5.3 [1.5.7] Address issues specific to protected areas, in the guidelines for incorporating biodiversity considerations in environmental impact assessment and strategic environmental assessment, procedures and regulations.

1.5.4 [1.5.8] Collaboration with the International Association for Impact Assessment and other relevant organizations on further development and refinement of the impact assessment guidelines particularly to incorporate all stages of environmental impact assessment processes in protected areas taking into account the ecosystem approach.

- 1.5.5 [1.5.9] Compile and disseminate through the clearing-house mechanism case studies practices and lessons learned in mitigating the negative impacts of key threats and facilitate the exchange of experiences.

*Main partners*

Parties, UNESCO-MAB, World Heritage Centre, scientific bodies of UNFCCC, CCD and Ramsar conventions, IUCN-WCPA, the International Association for Impact Assessment

*Other collaborators*

Relevant international, regional and national organizations, WWF, The Nature Conservancy, Birdlife International, and other intergovernmental organizations]

**PROGRAMME ELEMENT 2: Governance, participation, equity and benefit sharing.**

**Goal 2.1 – To promote equity and benefit-sharing**

**Target:** Establish by 2008 mechanisms for the equitable sharing of both costs and benefits arising from the establishment and management of protected areas.

**[Suggested activities of the Parties**

- 2.1.1. Assess the economic and socio-cultural costs and impacts arising from the establishment and maintenance of protected areas, particularly for indigenous and local communities, and adjust policies to ensure that such costs and impacts – including the costs of livelihood opportunities foregone – are equitably compensated.
- 2.1.2. Complementing government-managed protected areas, recognize and promote the broader set of [*protected area governance options*] conservation areas (e.g., areas conserved by indigenous and local communities, private reserves) through legal, policy, financial, institutional and community mechanisms.
- 2.1.3. Establish policies and institutional mechanisms to facilitate the legal recognition and effective management of indigenous protected areas and community conserved areas in a manner consistent with the goals of conserving both biodiversity and the knowledge, innovations and practices of indigenous and local communities.
- 2.1.4. Use social and economic benefits generated by protected areas to alleviate [*support*] poverty [*reduction efforts*], consistent with protected-area management objectives.
- 2.1.5. Engage relevant stakeholders in participatory planning and governance, recalling the principles of the ecosystem approach.
- 2.1.6. Establish adequate national policies to deal with access to genetic resources within protected areas and benefits arising from their utilization, drawing on the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization [*Establish national policies to deal with access to genetic resources within protected areas and*

*benefits arising from their utilization, taking into account the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their utilization, bearing in mind their voluntary character and that they do not purport to replace national legislation].*

[2.1.7 *Utilize as appropriate the traditional knowledge and practices of indigenous peoples and local communities.*]

**Goal 2.2 – To enhance and secure involvement of all stakeholders including local and indigenous communities.**

**Target:** By 2008, all protected areas are managed and established with full and effective participation of indigenous and local communities rights, consistent with national law and international obligations; and participation of other stakeholders in the appropriate phases and levels of work related to protected areas is enhanced.

**[Suggested activities of the Parties**

- 2.2.1 Carry out national reviews of the status, needs and context-specific mechanisms for involving stakeholders, ensuring gender and social equity, in protected areas policy and management, at the level of national policy, protected area systems and individual sites.
- 2.2.2 On the basis of the national reviews, develop specific plans and initiatives to involve stakeholders in all levels of protected areas planning, establishment, governance and management, including indigenous reserves and community conserved areas, including through establishment of multi-stakeholder management councils, as appropriate, using relevant ecological and socioeconomic data with particular emphasis on identifying and removing barriers preventing adequate private sector, NGO and community participation.
- 2.2.3 Plan, establish and manage protected areas with the prior informed consent and in full compliance with the rights of indigenous peoples and local communities.
- 2.2.4 Involve representatives chosen by indigenous and local communities in the management of protected areas proportionate to their rights and interests.
- 2.2.5 Support participatory assessment exercises among stakeholders to identify and harness the wealth of knowledge, skills, resources and institutions of importance for conservation that are available in society.
- 2.2.6 Promote and support stakeholder organizing and capacity building for the establishment and management of protected areas.
- 2.2.7 Ensure an enabling environment (legislation, policies, capacities, and resources) for the involvement of local and mobile people and indigenous stakeholders [*specially women and younger people,*] in decision making, and the development of their capacities and opportunities to establish and manage [*indigenous and local*] community-conserved and private protected areas.

***Suggested supporting activities of the Executive Secretary***

- 2.2.8 In collaboration with the key partners and based upon the best practices develop and make available guidance for parties on how to promote and enhance stakeholder participation in all aspects of protected areas.
- 2.2.9 Make available to Parties case-studies, advice on best practices and other sources of information on stakeholder participation in protected areas
- 2.2.10 Promote the international sharing of experience on effective mechanisms for stakeholder involvement in conservation in particular with regard to co-managed protected areas, [*indigenous and local*] community conserved areas and private protected areas.

*Main partners*

IUCN-WCPA, UNESCO-MAB, World Heritage Centre, Ramsar, CCD, other environmental conventions, World Bank, UNDP

*Other collaborators*

Relevant international, regional and national organizations, WWF, The Nature Conservancy, Birdlife International, other NGOs [*and other interested organizations*]

**PROGRAMME ELEMENT 3: Enabling activities**

**Goal 3.1 – To provide an enabling policy, institutional and socioeconomic environment for protected areas:**

**Target:** by 2008 review and revise policies as appropriate, including use of social and economic valuation and incentives, to provide a supportive enabling environment for more effective establishment and management of protected areas and protected areas systems.

**[Suggested activities of the Parties**

- 3.1.1 By 2006, identify legislative and institutional gaps that impede the effective establishment and management of protected areas, and by 2009, effectively address these gaps.
- 3.1.2 Conduct national-level assessments of the contributions of protected areas [, *considering as appropriate environmental services,*] to the country's economy and culture, and to the achievement of the Millennium Development Goals at the national level; and integrate the use of economic valuation and natural resource accounting tools into national planning processes in order to identify the hidden and non-hidden economic benefits provided by protected areas and who appropriates these benefits.
- 3.1.3 Harmonize sectoral policies and laws to ensure that they support the conservation and effective management of the protected area system.

- 3.1.4 Consider governance principles, such as the rule of law, decentralization, participatory decision-making mechanisms for accountability and equitable dispute resolution institutions and procedures.
- 3.1.5 Identify and remove perverse incentives and inconsistencies in sectoral policies that increase pressure on protected areas, or take action to mitigate their perverse effects. Whenever feasible, redirect these to positive incentives for conservation.
- 3.1.6 Identify and establish positive incentives that support the integrity and maintenance of protected areas and the involvement of communities and other stakeholders in conservation.
- [3.1.7 *Adopt legal frameworks unique to national, regional and sub-national protected areas systems of countries.*]
- 3.1.7 [3.1.8] Develop national incentive mechanisms and institutions to support the establishment of biodiversity conservation areas on private lands, including private reserves and conservation easements, at the national, regional and local level, which achieve biodiversity conservation goals in the managed landscape and seascape surrounding formal [*Government designated*] protected areas.
- 3.1.8 [3.1.9] Identify and foster economic opportunities and the creation of markets [*at local, national and international levels*] for goods and services [, *including carbon sequestration,*] produced by protected areas and/or reliant on the ecosystem services that protected areas provide, consistent with protected area objectives.
- 3.1.9 [3.1.10] Develop necessary mechanisms for institutions with responsibilities for conservation of biological diversity at the national, regional and local level to achieve institutional and financial sustainability.
- 3.1.10 [3.1.11] Cooperate with neighbouring countries to establish an enabling environment for transboundary protected areas and other similar approaches including regional networks.

***Suggested supporting activities of the Executive Secretary***

- 3.1.11 [3.1.12] In collaboration with key partners such as OECD, IUCN, WWF and the secretariats of other conventions compile information on relevant guidance, resource kits and other information on incentive measures including those relating to the development of incentive options through tenure rights, markets, pricing policies, etc.
- 3.1.12 [3.1.13] Compile and disseminate case-studies on best practices on the use of incentive measures for the management of protected areas.
- 3.1.13 [3.1.14] Identify ways and means to integrate the use of incentive measures into protected area management plans, programmes and policies including opportunities for the removal or mitigation of perverse incentives.

*Main partners*

Parties, IUCN-WCPA, UNESCO-MAB, World Heritage Centre, scientific bodies of CCD and Ramsar conventions

*Other collaborators*

Relevant international, regional and national organizations, WWF, The Nature Conservancy, Birdlife International, [*Conservation International*] World Bank and other intergovernmental organizations.]

**Goal 3.2 – To build capacity for the planning, establishment and management of protected areas:**

**Target:** By 2010, comprehensive capacity building programmes and initiatives are implemented to develop knowledge and skills at individual, community and institutional levels, and raise professional standards, with particular emphasis on social equity.

*[Suggested activities of the Parties*

- 3.2.1 Compile and/or develop by 2006 national protected-area capacity assessments, incorporating existing knowledge and experiences on protected areas management, including indigenous and traditional knowledge and establish and implement capacity building programmes at the national and local levels and report progress within the framework of the Convention on Biological Diversity. This should include conflict resolution and negotiation skills.
- 3.2.2 Establish effective mechanisms to document existing knowledge and experiences on protected area management, including indigenous/traditional knowledge and identify knowledge and skills gaps.
- 3.2.3 Establish and implement a capacity-building programme, including on financial and technical assistance needs, at the national [*sub-national and local*] levels that is demand driven and adaptive to changes and innovation and report progress within the framework of the Convention on Biological Diversity.
- 3.2.4 Establish mechanisms to exchange lessons learnt, information and capacity-building experiences among countries, in collaboration with the Clearing-house Mechanisms and relevant organizations.
- 3.2.5 Create and/or strengthen the capacities of institutions to establish cross-sectoral collaboration for protected area management at the regional, national and local levels, and to establish harmonized and enabling policy and legal frameworks.
- 3.2.6 Create and/or strengthen the capacities of institutions to establish and sustain baseline funding at levels adequate to ensure appropriate standards of protected area management, including creative fundraising through fiscal incentives, environmental services and other instruments.
- 3.2.7 Create and/or develop the capacity of protected areas institutions for creative fundraising through fiscal incentives, environmental services, and other instruments.

- 3.2.8 Call on the GEF and other donor agencies to support developing countries and countries with economies in transition to put in place their capacity-building initiatives on protected area management and for implementation of national systems of protected areas and networks.

***Suggested supporting activities of the Executive Secretary***

- 3.2.9 Compile available information, including national reports, review past studies, and identify capacity needs.
- 3.2.10 Cooperate with and support the Protected Areas Learning Network (PALNet), an interactive website where protected area managers and associated people can exchange experience and explore lessons learned from those experiences, in collaboration with relevant organizations and the CHM.

*Main partners*

Parties, IUCN-WCPA, UNESCO-MAB, World Heritage Centre, scientific bodies of CCD and Ramsar Conventions

*Other collaborators*

Relevant international, regional and national organizations, WWF, The Nature Conservancy, Birdlife International, [*Conservation International, the*] World Bank and other [*interested*] organizations.]

**Goal 3.3 To develop, apply and transfer appropriate technologies for protected areas:**

**Target:** By 2010 the development, validation, and transfer of appropriate technologies and innovative approaches for the effective management of protected areas is substantially improved, taking into account decisions of the Conference of the Parties on technology transfer and cooperation.

***[Suggested activities of the Parties***

- 3.3.1 Carry out documentation of appropriate technologies for conservation and sustainable use of biological diversity of protected areas and management of protected areas.
- 3.3.2 Undertake an assessment of needs for relevant technologies for protected area management involving all stakeholders such as the local and indigenous communities, research institutions, non-governmental organizations and the private sector.
- 3.3.3 Make available to the Executive Secretary information concerning appropriate technologies and effective approaches for the management of protected areas.
- 3.3.4 Encourage development and use of appropriate technology for habitat restoration, resource mapping, biological inventory, and rapid assessment of biodiversity, monitoring, *in situ* and *ex situ* conservation, sustainable use, etc.
- 3.3.5 Create enabling environment for transfer of technology through legal frameworks and strengthening law enforcement.

***Suggested supporting activities of the Executive Secretary***

- 3.3.6 Compile information provided by Parties and relevant international organizations on appropriate technologies and approaches for efficient management of protected areas and conservation and sustainable use of biological diversity of protected areas.
- 3.3.7 Disseminate this information through the clearing-house mechanism and facilitate exchange of information.

*Main partners*

IUCN-WCPA, UNEP-WCMC, UNESCO-MAB, World Heritage Centre, WRI, Millennium Ecosystem Assessment

*Other collaborators*

Relevant international, regional and national organizations, WWF, The Nature Conservancy, Birdlife International, other NGOs, Global Biodiversity Information Facility, and [other] interested parties [and organizations]]

**Goal 3.4 – To ensure financial sustainability of protected areas and national and regional systems of protected areas**

**Target:** By 2008, sufficient resources to meet the costs to effectively implement and manage national and regional systems of protected areas are secured.

**[Suggested activities of the Parties**

- 3.4.1. Conduct a national-level study by 2006 of financial needs and options (taking into account possibilities of prioritization and adjustment of expenditure patterns) related to the national system of protected areas with funding consisting of a mixture of national and international resources and include the whole range of possible funding instruments, such as public funding, debt for nature swaps, private funding, taxes and fees for the use of ecological services at national level, remuneration from services provided by protected areas, and environmental compensation payments.
- 3.4.2. Based on the results of this study, establish country-level sustainable financing plans (SFPs) that support national systems of protected areas, and begin to implement these by 2006, including necessary regulatory, legislative, institutional and other measures. To help in the development of these plans, countries should [could] draw on the expertise and resources of United Nations agencies, multilateral and bilateral aid agencies, other funding agencies non-governmental organizations [and private sector]
- 3.4.3. Collaborate with other countries to develop and implement sustainable financing programs for regional and international systems of protected areas.
- 3.4.4. Provide information on national protected areas financing in future national reports under the Convention on Biological Diversity, and help to strengthen the role of the Convention Secretariat

in collecting and sharing information about protected areas financing, in collaboration with other relevant mechanisms such as the World Database on Protected Areas.

3.4.5. Mainstream protected areas into development planning.

***Suggested supporting activities of the Executive Secretary***

3.4.6 Seek information from parties about the financing of protected areas and requirements for implementation of the programme of work.

3.4.7 Convene a meeting of the donor agencies for facilitating funding to parties for implementation of the programme of work.

3.4.8 Compile and disseminate case-studies and best practices concerning protected area financing through the clearing-house mechanism.

3.4.9 Carry out by 2006 a study on the value of ecosystem services provided by protected areas.

***Main partners***

Parties, GEF, World Bank, Conservation Finance Alliance, and other donors

***Other collaborators***

Relevant international, regional and national organizations, IUCN, WWF, The Nature Conservancy, Birdlife International, other intergovernmental [*and interested*] organizations]

**Goal 3.5 – To strengthen communication, education and public awareness**

**Target:** By 2008 public awareness, understanding and appreciation of the importance and benefits of protected areas is significantly increased.

***[Suggested activities of the Parties***

3.5.1 Establish or strengthen education and public awareness programs on the importance of protected areas in terms of their role in national conservation and socio-economic development, in close collaboration with the Communication, Education and Public Awareness Initiative (CEPA) under the Convention on Biological Diversity and targeted towards all stakeholders.

3.5.2 Identify core themes for education, awareness and communication programmes relevant to protected areas, including *inter alia* their contribution to economy and culture to achieve specific end results such as compliance by resource users and other stakeholders or an increased understanding of science-based knowledge by local and indigenous communities and policy makers.

- 3.5.3 Strengthen, and where necessary, establish information mechanisms directed at target groups such as the private sector, policy makers, development institutions, community-based organizations, the youth, the media, and the general public.
- 3.5.4 Develop mechanisms for constructive dialogue and knowledge exchange among protected-area managers, and between protected area managers and indigenous and local communities and their organizations [*and other environment educators and actors*].
- 3.5.5. Ensure that particular attention is to be drawn to a suitable preparation of the information for the variety of local/indigenous groups.
- 3.5.6. Incorporate protected areas as an integral component of the school curricula [*including informal education*] at both national and regional levels.

***Suggested supporting activities of the Executive Secretary***

- 3.5.7. Develop copyright-free educational tools and materials for adaptation and use in the promotion of protected areas as an important means of achieving the conservation and sustainable use of biodiversity.
- 3.5.7. Generate an annotated bibliography and case studies to demonstrate the range of effective options available for designing and implementing awareness and communication programmes and activities for protected areas.
- 3.5.8. Establish, in collaboration with the IUCN World Commission on Protected Areas, the Education and Communication Commission of IUCN, and other relevant partners, an initiative to engage the global news and entertainment industry (television, film, popular music, internet, etc.) in a global campaign to raise awareness of the costs of biological diversity loss and the important role of protected areas in reversing [*preventing*] that loss.

*Main partners*

IUCN-WCPA, UNESCO-MAB, World Heritage Centre, and Ramsar CIPA Working Group

*Other collaborators*

Relevant international, regional and national organizations, WWF, The Nature Conservancy, Birdlife International, [*and national and*] multinational mass media corporations]

**PROGRAMME ELEMENT 4: Standards, assessment, and monitoring**

**Goal 4.1 – To develop minimum standards and best practices for national and regional protected area systems:**

**Target:** By 2008, standards, criteria, and best practices for planning, selecting, establishing, managing and governance of national and regional systems of protected areas are developed and adopted.

**[Suggested activities of the Parties]**

- 4.1.1 Institute, within the framework of the Convention, a process for the development of voluntary protected areas standards and best practices on planning and management. In developing this framework, Parties may wish to recall the Guideline Series on Protected Area Management produced by IUCN.
- 4.1.2 Develop an efficient, long-term monitoring system, measuring: biodiversity status, status of conservation targets, ecological integrity, threat abatement, and capacity for effective management, where appropriate based on a set of indicators and including voluntary participation.
- 4.1.3 Draw upon monitoring results to employ adaptive management according to the ecosystem approach.

***Suggested supporting activities of the Executive Secretary***

- 4.1.4 In collaboration with the key partners and based upon the best practices develop and make available guidance for parties minimum standards for planning, selecting, establishing, managing and governance of protected area sites and systems.
- 4.1.5 Compile information on best practices and case-studies on effective management of protected areas and disseminate it through clearing-house mechanism and facilitate exchange of information.

*Main partners*

IUCN-WCPA, UNEP-WCMC, UNESCO-MAB, World Heritage Centre, Ramsar and other environmental conventions.

*Other collaborators*

Relevant international, regional and national organizations, WWF, The Nature Conservancy, Birdlife International, [Conservation International], other NGOs and interested parties [and organizations]

**Goal 4.2 – To evaluate the effectiveness of protected areas management:**

**Target:** By 2008, frameworks for monitoring, evaluating and reporting protected areas management effectiveness at sites, national and regional systems, and transboundary protected area levels adopted and implemented by Parties.

**[Suggested activities of the Parties]**

- 4.2.1 Develop standards and best practice guidelines for evaluating the effectiveness of protected area management and governance, and set up a related database, taking into account the IUCN-WCPA framework for evaluating management effectiveness, and other relevant methodologies, which should adapted to local conditions.

- 4.2.2 Select by 2005 appropriate methods, criteria and indicators for evaluating protected areas management effectiveness.
- 4.2.3 Implement management effectiveness evaluations of at least 30 percent of each Party's protected areas by 2010 and of national protected area systems and ecological networks.
- 4.2.4 Include information resulting from evaluation of protected areas management effectiveness in national reports under the Convention on Biological Diversity.
- 4.2.5 Focus management effectiveness efforts on site and system planning, governance, participatory process, financing, access to genetic resources, and benefit sharing processes.

***Suggested supporting activities of the Executive Secretary***

- 4.2.6 Compile and disseminate information on initiatives through the clearing-house mechanism and develop a database of experts in evaluation of protected area management effectiveness.
- 4.2.7 Compile information on approaches to protected area design, establishment and management that have high probability of being the most effective in conserving biodiversity.

*Main partners*

IUCN-WCPA, UNEP-WCMC, UNESCO-MAB, World Heritage Centre, Ramsar and other environmental conventions

*Other collaborators*

Relevant international, regional and national organizations, WWF, The Nature Conservancy, Birdlife International, other NGOs and interested Parties [*and organizations*]

**Goal 4.3 – To assess and monitor protected area status and trends:**

**Target:** By 2010, systems to enable effective monitoring of protected-area coverage, status and trends at national, regional and global scales, and to assist in evaluating progress in meeting global biodiversity targets are established.

**[Suggested activities of the Parties**

- 4.3.1 Measure progress towards achieving targets based on a periodic monitoring programme and report on progress towards targets in future national reports under the Convention on Biological Diversity.
- 4.3.2 Incorporate reporting on national components of regional networks of protected areas in national reports and protected areas under the Convention on Biological Diversity.
- 4.3.3 Explore establishment of a harmonized system for reporting on sites designated under the Convention on Wetlands, the World Heritage Convention, and UNESCO MAB programme,[*and*

*other regional systems inter alia Bern Convention, the European diploma for protected areas etc., as appropriate*], taking into account the reporting mechanism currently being developed by UNEP-WCMC.

- 4.3.4 Participate in the World Database on Protected Areas maintained by UNEP-WCMC, and the United Nations List of Protected Areas and the State of the World's Protected Areas assessment process.
- 4.3.5 Encourage establishment of geographic information system units as a tool for monitoring protected areas and supporting decision-making processes.
- 4.3.6 Invite multilateral, bilateral and private donor agencies and institutions to support the World Database on Protected Areas in its function as a key support mechanism in the assessment and monitoring of protected area status and trends, taking into account paragraph 4 of decision VI/7 C of the Conference of the Parties to the Convention on Biological Diversity, as well as national and regional databases on protected areas.

***Suggested supporting activities of the Executive Secretary***

- 4.3.7 Develop and strengthen working partnerships with appropriate organizations and institutions that have developed and maintained databases on protected areas, in particular with the UNEP-WCMC and the IUCN World Commission on Protected Areas.]

**Goal 4.4 – To ensure that scientific knowledge contributes to the establishment and effectiveness of protected areas and protected area systems.**

**Target:** Scientific knowledge relevant to protected areas is further developed as a contribution to their establishment, effectiveness, and management.

***[Suggested activities of the Parties***

- 4.4.1 Improve research, scientific and technical cooperation related to protected areas.
- 4.4.2 Promote interdisciplinary, applied research, bringing together ecological, social, and economic sciences, with a view to, *inter alia*, develop and improve understanding of the ecological functions of protected areas, particularly in regard to the maintenance of biogeochemical cycles, including as a criteria for defining standards of exemplification.
- 4.4.3 In line with the Global Taxonomy Initiative, encourage studies to improve the knowledge of the distribution, status and trends of biological diversity in protected areas.
- [4.4.4 *Develop and implement programs to monitor the status of biodiversity in protected areas and their adjacent areas, including the promotion of the use of geographic information systems and remote sensing technologies for predicting and mitigating impacts.*]

***Suggested supporting activities of the Executive Secretary***

4.4.4 [4.4.5] Develop and strengthen working partnerships with appropriate organizations and institutions which undertake research studies leading to an improved understanding of biodiversity in protected areas.

4.4.5 [4.4.6] Further develop methods and techniques for evaluation of goods and services of biodiversity of protected areas.

*Main partners*

IUCN-WCPA, UNEP-WCMC, UNESCO-MAB, World Heritage Centre, WRI, Millennium Ecosystem Assessment.

*Other collaborators*

Relevant international, regional and national organizations, WWF, The Nature Conservancy, Birdlife International, other NGOs, Global Biodiversity Information Facility, and interested Parties]

***[Appendix***

***CHECKLIST OF BROAD INITIATIVES TO BE TAKEN BY PARTIES FOR IMPLEMENTING THE PROGRAMME OF WORK***

- i. Identify and report to the Conference of the Parties to the extent possible those elements of biodiversity referred to in paras 1 and 2 of Annex I to the Convention and establish lists of species and habitats for which specific conservation measures, including through protected areas and ecological networks where appropriate, is considered necessary;*
- ii. Designate by the time of the ninth meeting of the Conference of the Parties, the precise borders and maps of protected areas and ecological networks where appropriate, needed to enable the habitat types and the species concerned to be maintained or, where appropriate, restored in their natural range;*
- iii. Assess legislative and institutional gaps that impede the effective establishment and management of protected areas by 2006 and address these gaps effectively by 2009;*
- iv. Encourage the appropriate management of all areas important for biodiversity in the wider landscape, including features which are of major importance for wild flora and fauna. Such management should relate to those features which, by virtue of their linear and continuous structure (such as rivers with their banks or their traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species;*
- v. Consider different possible legal types of protected areas such as government managed areas, community conservation areas, as well as indigenous and private reserves;*
- vi. Establish and manage protected areas and ecological networks where appropriate, respecting the rights of indigenous people and local communities;*

- vii. **Ensure the ecological representativeness and coherence** of the resulting national, regional and sub-national systems of protected areas and, where appropriate ecological networks and their integration into the wider landscape and seascape;
- viii. **Develop regional networks , transboundary protected areas** for ecological representativity and promote co-operative arrangements to ensure the ecological coherence of networks across regions;
- ix. **Address** especially the under-representation of **protected areas in marine ecosystems** (both in coastal waters and on high seas) having in mind the rights and obligations laid down in the UN Convention on the Law of the Sea (UNCLOS);
- x. **Ensure broad stakeholder involvement**, and the **adequate participation** of indigenous and local communities and major groups in the planning, establishment and management of protected areas as a way of poverty reduction and promoting sustainable development;
- xi. **Ensure effective and adequate management and protection status** for protected areas (preventing the problem of 'paper parks'), by establishing for each site necessary measures involving, if needed, appropriate management plans specifically designed for the sites or integrated into other development plans, and appropriate statutory (legal), administrative or contractual measures which correspond to the ecological requirements of the habitats and species concerned, taking account of the principles of sustainable use and applying the ecosystem approach;
- xii. **Take appropriate steps to avoid, in protected areas, the deterioration of habitats as well as the disturbance** of the species for which the areas have been designated, taking into account the principles of sustainable use;
- xiii. **Seek to remove and avoid perverse incentives** and develop **precautionary mechanisms** (e.g. appropriate strategic, sectoral and project-level impact assessments, compensation measures) for donor agencies, governments and the private sector to avoid activities damaging the protected areas and ecological networks where appropriate;
- xiv. **Identify and promote financial** (including national as well as bilateral and multilateral development assistance and funding from public and private sources) and **non financial** incentives (valuation, establishment of property, use and access rights, tourism, etc...) supporting the establishment and management of protected areas and aimed at the long-term **self-financing** of protected areas and ecological networks where appropriate;
- xv. **Ensure a communicative, participatory and equitable approach** in the development of protected areas, starting from local, regional and national needs, ensuring broad stakeholder commitment and involvement and establish ways and means to ensure that national, regional or global benefits generated and costs incurred at the local level are equitably shared supporting the indigenous and local communities;
- xvi. **Establish** adequate systems for **monitoring** the conservation status of the habitats and species concerned;]

**25. Transfer of technology and technology cooperation (Articles 16 and 18)**

*The following draft decision is taken from paragraph 2 of recommendation 4 of the Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010 and paragraphs (a)-(g) of SBSTTA recommendation IX/5. In paragraph 3 of recommendation 4, the Inter-Sessional Meeting also recommended that the Conference of the Parties consider the need for further guidance to the financial mechanism on this issue. In addition, in paragraphs (h) and (i) of the recommendation IX/5, SBSTTA recommended that the Conference of the Parties:*

**(a) Provide additional guidance to the financial mechanism of the Convention on pertinent activities for the building or enhancement of capacity of relevance for the successful transfer of technologies and cooperation;**

**(b) Consider further ways and means of involving multilateral financial institutions, regional banks and other relevant funding bodies in the work of the Convention and in the efforts of Parties in its implementation, particularly with respect to capacity development and technology transfer and cooperation.**

*In addition, the Ad Hoc Working Group on Article 8(j) and Related Provisions, in its recommendation 3/8 (UNEP/CBD/COP/7/7, annex), recommended that the Conference of the Parties at its seventh meeting take into account in a comprehensive fashion, when reviewing the draft elements of a programme of work on technology transfer and technological and scientific cooperation submitted by the ninth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice:*

**(a) Both the traditional and the innovative technologies from indigenous and local communities; and**

**(b) Mechanisms for ensuring that technology transfer and cooperation fully respect the rights of indigenous and local communities.**

*The Conference of the Parties*

1. *Requests* the Executive Secretary to gather additional information in response to the possible information gaps identified in that report, including through regional workshops and other meetings such as the Trondheim Conference on Technology Transfer and Capacity Building in June 2003;

2. *Requests* the Executive Secretary, in cooperation with the World Intellectual Property Organization, the United Nations Conference on Trade and Development and other relevant international organizations, to develop or improve systems, as appropriate, of international information exchange and their inter-operability, relying, *inter alia*, on the clearing-house mechanism, with regard to available technologies for the conservation and sustainable use of biodiversity, and with regard to technology that makes use of genetic resources, and to use the clearing-house mechanism as a gateway to existing databases, including patent databases, and other information resources;

3. *Requests* the Executive Secretary, as part of a comprehensive implementation support strategy for the Convention on Biological Diversity consistent with the multi-year programme of work and the Strategic Plan of the Convention, and drawing upon experiences from other international conventions and processes, to develop proposals on options for mechanisms to facilitate access to

technologies in the public domain and to proprietary technologies by developing countries and countries with economies in transition, and report thereon to the Conference of the Parties at its eighth meeting;

4. *Requests* the Executive Secretary to collaborate with relevant international organizations and processes such as the ad hoc working group on technology transfer and cooperation of the Commission on Sustainable Development, with a view to developing and making available, through the clearing-house mechanism, a compendium of relevant technologies and their ownership status, including options for best practices, as well as relevant technologies arising from the use of knowledge, innovations and practices of indigenous and local communities, which are cross-referenced to relevant problems in the context of the Convention on Biological Diversity, taking into account the information contained in the thematic reports on technology transfer submitted by Parties in accordance with paragraph 4 of decision VI/25;

5. *Invites* the World Intellectual Property Organization to further explore and analyse the role of intellectual property rights in technology transfer in the context of the Convention on Biological Diversity;

6. *Invites* Parties and Governments to exchange information on and to cooperate in scientific research with research institutions in developing countries and countries with economies in transition, as well as to foster innovative partnerships, including counterpart partnerships, with private-sector entities and local and indigenous communities;

7. *Invites* Parties and Governments to promote the transfer and use of relevant technologies arising from the use of knowledge, innovations and practices of indigenous and local communities with the full and effective participation, approval and involvement of these communities;

8. *Invites* developed country Parties and Governments to take legislative, financial and policy measures that would provide financial and non-financial incentives to private-sector actors, as well as public research institutions, to implement technology transfer-programmes or joint ventures in developing countries;

9. *Invites* Parties and Governments to encourage joint patents and joint research programmes as mechanisms to facilitate transfer of technologies that make use of genetic resources;

10. *Invites* Parties and Governments to promote technology transfer in the context of the Convention on Biological Diversity through type 2 partnerships, in accordance with the outcome of the World Summit on Sustainable Development;

11. *Invites* developing country Parties to create an enabling legal, administrative and policy environment that would provide incentives for and facilitate foreign investment and the diffusion of relevant technologies and that would promote South-South cooperation;

12. *Invites* international, regional and national donors, as appropriate, to provide support to developing country Parties and countries with economies in transition, based on needs and priorities identified by these countries, with regard to:

- (a) Building policy, legal, judicial and administrative capacity;
- (b) Facilitating access to relevant proprietary technologies;

- (c) Providing other financial and non-financial incentives for the diffusion of relevant technologies;
- (d) Supporting, if feasible and appropriate, the design and implementation of additional supportive policy measures to the introduction or strengthening of national intellectual-property-rights regimes, in order to mitigate any negative side-effects and to maximize benefits;
- (e) Providing support to improve the capacity of national systems of information gathering and dissemination with regard to needs and opportunities for technology transfer;
- (f) Building capacities of, and empowering, indigenous and local communities with respect to access to and use of relevant technologies as well as providing opportunities for promoting the use of technologies arising from the use of their knowledge, innovations and practices and benefiting from their transfer, including community-to-community transfers;
- (g) Providing support to improve the capacity of national research institutions for the adaptation and further development of imported technologies;
- (h) Supporting the development and operation of regional or international initiatives to assist technology transfer as well as scientific and technical cooperation, particularly those initiatives designed to facilitate South-South cooperation and South-South joint development of new technologies;

***[Programme of work on technology transfer and cooperation]***

- 13. *Adopts* the elements of a programme of work on technology transfer and cooperation as contained in the annex to the present decision;
- 14. *Decides* that implementation of the programme of work should be undertaken in close coordination with relevant activities under thematic programmes of work and programmes of work of other cross-cutting issues, in order to prevent duplication of work and maximize synergy;
- 15. *Invites* Parties and relevant international organizations, and *requests* the Executive Secretary, to carry out the activities under their respective responsibilities as spelled out in the programme of work up to the eighth meeting of the Conference of the Parties, as a first phase in the implementation of the programme of work;
- 16. *Invites* Parties, in accordance to their identified needs and priorities, to convene national, sub-regional and regional workshops to exchange information and experiences on and to enhance capacity for the successful cooperation, transfer, dissemination and absorption of environmentally sound technologies;
- 17. *Decides* that the informal advisory committee of the clearing-house mechanism, further to decision V/14, shall:
  - (a) Provide advice on the development of proposals on the possible role of the clearing-house mechanism as a central mechanism for exchange of information on technologies, for facilitating technology transfer and cooperation and to promote and facilitate technical and scientific cooperation relevant for the conservation and sustainable use of biodiversity, and for technologies that make use of genetic resources;
  - (b) Develop guidance for implementation by national clearing house mechanism nodes for common or similar frameworks for identifying the availability of relevant technologies to enhance international cooperation and to facilitate the interoperability with relevant existing systems of national and international information exchange, including technology and patent databases; and

(c) Assist in the implementation of proposals for enhancing the clearing-house mechanism as a central mechanism for exchange of information on technologies, for facilitating and promoting technology transfer and cooperation and for the promotion of technical and scientific cooperation as adopted by the Conference of the Parties;

18. *Decides* to establish an Ad Hoc Technical Expert Group on Technology Transfer and Technology Cooperation, which shall assist the Executive Secretary in the:

(a) Preparation of proposals on options to apply institutional, administrative, legislative and policy measures and mechanisms, including best-practices as well as to overcome barriers, to facilitate access to and absorption of technologies on the public domain and to proprietary technologies by developing countries and countries with economies in transition; and

(b) Exploration of possibilities and mechanisms of cooperation with processes in other Conventions and international organizations, such as the UNFCCC Expert Group on Technology Transfer (EGTT);

for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting prior to the eighth meeting of the Conference of the Parties;

19. *Calls upon* Parties, governments and relevant international and regional organizations to provide financial and technical support and training, as appropriate, to assist in the implementation of the programme of work.

#### *Annex*

### **DRAFT ELEMENTS OF A PROGRAMME OF WORK ON TECHNOLOGY TRANSFER AND TECHNOLOGICAL AND SCIENTIFIC COOPERATION**

1. The purpose of this programme of work is to develop meaningful and effective action to enhance the implementation of Articles 16 to 19 as well as related provisions of the Convention by promoting and facilitating the transfer of and access to technologies from developed to developing countries as well as to countries with economies in transition as well as among developing countries, necessary to ensure implementation of the three objectives of the Convention, and in support of the target to achieve a significant reduction of the current rate of biodiversity loss at the global, regional and national level by 2010. Implementation of this programme of work shall also contribute to the attainment of the millennium development goals to ensure environmental sustainability and to eradicate extreme poverty and hunger by 2015.

2. The successful transfer of technology and technology cooperation requires a country-driven, integrated approach at international, regional as well as national and sectoral levels, based on cooperation among various stakeholders, including the private sector, governments, indigenous and local communities, bilateral and multilateral institutions, funding institutions, non-governmental organizations and academic and research institutions, to enhance activities on technology assessments, on information systems, on creating enabling environments, on capacity building and on implementation support mechanisms.

3. Implementation of the activities spelt out in this programme of work, and the indicated timelines, shall not delay the immediate transfer of technologies, in accordance with Articles 16 to 19 of the Convention, in those cases where technology needs and opportunities for the transfer of environmentally sound technologies are already identified and the enabling environment supports their successful transfer, adaptation and absorption.

4. In implementing this programme of work, the various actors enumerated above are invited to take into account the following strategic considerations:

(a) In the light of largely varying socio-economic and cultural conditions among countries, technology transfer, and in particular the assessment of technology needs and of the related needs for the building or enhancement of capacity, is necessarily a country-driven process;

(b) The participation, approval and involvement of all relevant stakeholders, especially indigenous and local communities embodying traditional lifestyles, is key for the successful transfer and diffusion of technology for conservation and sustainable use of biological diversity;

(c) Consideration should be given to identifying and facilitating the use of local solutions to local issues, as the most innovative solutions are often developed locally, but remain unknown to a wider community of potential users;

(d) The strengthening of national, regional and international information systems including through the development and use of common formats, standards and protocols, providing, *inter alia*, access to information on existing technologies for the purposes of the Convention, and the improvement of the Convention clearing-house mechanism as a central gateway to such information systems, is crucial for the implementation of Articles 16 to 19 of the Convention;

(e) The development of innovative partnerships, involving governmental agencies, public and private research institutions, the private sector, and national and local stakeholders, is a tool that facilitates enabling environments that are conducive to the successful cooperation and transfer of technologies;

(f) In light of the numerous ongoing activities on technology transfer and technology cooperation under existing programmes and initiatives, particular attention should be given to the establishment of synergies with such programmes and initiatives, in order to avoid the duplication of work;

(g) Building or enhancing human and institutional capacity at all levels, in particular in developing countries and in countries with economies in transition, is of paramount importance to implement the present programme of work.

#### **PROGRAMME ELEMENT 1: TECHNOLOGY ASSESSMENTS**

Technology assessment is a set of country-driven activities which involve relevant stakeholders in a consultative process to identify and determine the needs of Parties in response to national priorities and policies, particularly developing countries and countries with economies in transition, with regard to the cooperation and transfer of technology for conservation and sustainable use of biodiversity, or technology that makes use of genetic resources, and with regard to building or enhancement of scientific, legal and administrative capacity, and training. Furthermore, assessment should also identify, as appropriate, the potential benefits, costs and risks of such technologies. Any international cooperation in this field should be on mutually agreed terms.

**Objective:** *Technology needs, the potential benefits costs and risks of such technologies, and the related capacity building needs of Parties are identified in response to national priorities and policies*

**Operational target 1.1:** *Technology needs assessments are conducted as appropriate, with the participation of stakeholders, in accordance with the activities foreseen in the thematic and cross-cutting work programmes under the Convention and in line with national priorities as set out, inter alia, in the national biodiversity strategy and action plan.*

*Activities*

**1.1.1. Preparation, in accordance with the activities foreseen in the thematic and cross-cutting work programmes under the Convention and in line with national priorities, of technology assessments addressing:**

- (a) Technology needs, opportunities and barriers in relevant sectors;**
- (b) Related needs in the building of capacity.**

**Operational target 1.2:** *Impact and risk assessments are conducted as appropriate with the participation of stakeholders and, if needed and requested, with international cooperation*

*Activities*

**1.2.1 Preparation, as appropriate, of transparent impact assessments and risk analysis of the potential benefits, risks and associated costs with the introduction of technologies, including new technologies, whose risks and benefits are not yet determined.**

**1.2.2 Dissemination of assessments and related experiences at national and international levels**

*Main actors:* Parties to the Convention on Biological Diversity, in collaboration with relevant national and international stakeholders and with support from GEF and from relevant international funding organization as appropriate

*Timeline for implementation:* ongoing.

**Operational target 1.3:** *Information on methodologies for the assessment of technology needs are widely available to Parties through the clearing house mechanism and other means as appropriate.*

*Activities:*

**1.3.1. Collect information on technology needs assessment methodologies, analyse applicability and adaptation needs for technologies for conservation and sustainable use of biodiversity, and for technologies that make use of genetic resources and disseminate this information through the clearing house mechanism or other means as appropriate**

*Main actor:* the Secretariat of the Convention on Biological Diversity, in collaboration with relevant organizations and with input by Parties and Governments

*Timeline for implementation:* the eighth meeting of the Conference of the Parties

## **PROGRAMME ELEMENT 2: INFORMATION SYSTEMS**

The development or strengthening of national, regional and international systems for the gathering and dissemination of relevant information on technology transfer and cooperation and technical and scientific cooperation, including the establishment of effective networks of electronic databases of relevant technology, has been recognized as a tool that facilitates the transfer of technology for the conservation and sustainable use of biodiversity, and of technology that makes use of genetic resources. Activities under this programme element should build on existing initiatives and programmes with a view to maximize synergy and avoid the duplication of work. At the international level, these systems, using the clearing-house mechanism, would provide, *inter alia*, information on the availability of relevant technologies, including their technical parameters, economic and social aspects, data on patents (owners and date of expiration), models of contracts and associated legislation; the identified technology needs of

Parties as well as case-studies and best-practices on measures and mechanisms to create enabling environments for technology transfer and technology cooperation.

**Objective:** *National, regional and international information systems for technology transfer and cooperation provide comprehensive information of relevance to foster technology transfer and technology cooperation*

**Operational target 2.1:** *The clearing-house mechanism is a central mechanism for the exchange of information on and facilitation of technology transfer and technical and scientific cooperation relevant for the Convention on Biological Diversity, providing access to information on national technology needs, available relevant proprietary technologies and technologies in the public domain, including access to databases of existing technologies, and information on best-practices to create enabling environments for technology transfer and technology cooperation*

#### **Activities**

##### **2.1.1. Develop provisional web pages and print media that provide access to information on relevant initiatives and databases for the transfer of technology and for technology cooperation**

*Main actor:* the Secretariat of the Convention on Biological Diversity in collaboration with relevant organizations and initiatives

*Timeframe for implementation:* post seventh meeting of the Conference of the Parties

##### **2.1.2. Development of proposals to enhance the clearing-house mechanism, including its national nodes, as a key mechanism for exchange of information on technologies, for facilitating and promoting technology transfer and cooperation and for the promotion of technical and scientific cooperation relevant for the conservation and sustainable use of biodiversity, and for facilitating access to technologies that make use of genetic resources**

##### **2.1.3. Development of advice and guidance on the use of new information exchange formats, protocols and standards to enable interoperability among relevant existing systems of national and international information exchange, including technology and patent databases**

*Main actor:* the Secretariat of the Convention on Biological Diversity in collaboration with Parties, the informal advisory committee of the clearing house mechanism and relevant organizations and initiatives, with support from GEF and from relevant international funding organizations as appropriate

*Timeframe for implementation:* the eighth meeting of the Conference of the Parties

##### **2.1.4. Implementation of proposals for enhancing the clearing-house mechanism as a central mechanism for exchange of information on technologies, for facilitating and promoting technology transfer and for the promotion of technical and scientific cooperation as adopted by the Conference of the Parties, in full synergy with similar initiatives and mechanisms of other Conventions and international organizations**

*Main actor:* the Secretariat of the Convention on Biological Diversity in collaboration with the informal advisory committee of the clearing house mechanism, Parties and relevant organizations and initiatives with support from GEF and from relevant international funding organizations as appropriate. This arrangement may be reviewed after a reasonable trial period.

*Timeframe for implementation:* the ninth meeting of the Conference of the Parties, then ongoing

**Operational target 2.2:** *Opportunities to establish or strengthen national information systems for technology transfer and technology cooperation are identified, with consultation of and input from relevant stakeholders*

**Activities:**

**2.2.1. *Compilation and synthesis of information on national and regional information systems for technology transfer and cooperation, including the identification of best-practices and of needs for further improvements, in particular in regard to the accessibility of such systems for all relevant stakeholders, especially indigenous and local communities, as well as information on capacity and human resources available and needed***

*Main actor:* the Secretariat of the Convention on Biological Diversity, with input from Parties and in cooperation with relevant organizations as appropriate, and with support from GEF and from relevant international funding organizations as appropriate

*Timeline for implementation:* the eighth meeting of the Conference of the Parties, then ongoing

**2.2.2. *Develop or strengthen national information systems of technology transfer and technology cooperation***

*Main actors:* Parties in cooperation with the Secretariat and relevant organizations as appropriate, and with support from GEF and from relevant international funding organizations as appropriate

*Timeline for implementation:* the eighth meeting of the Conference of the Parties

**Operational target 2.3:** *National information systems for technology transfer and technology cooperation, especially those functioning through national clearing-house mechanisms, are established or strengthened, are effectively linked to international information systems and contribute effectively to technology transfer, dissemination and absorption and to the exchange of technologies, including south-south technology transfer.*

**Activities:**

**2.3.1 *Development or improvement of national systems of information exchange on technology transfer and technology cooperation, in consultation with relevant stakeholders, with a view to foster dialogue between technology holders and prospective users through, inter alia, the application of ways and means to ensure:***

- (a) *Effective linkages with existing national, regional and international information systems;***
- (b) *Accessibility and adaptability of such systems by indigenous and local communities and all relevant stakeholders;***
- (c) *Information on local needs for adaptation, and related capacity, to be effectively channeled into national systems***

*Main actors:* Parties to the Convention on Biological Diversity, in consultation with relevant national stakeholders, with support by relevant organizations and well as with support from GEF and from relevant international funding organizations as appropriate

*Timeline for implementation:* the ninth meeting of the Conference of the Parties

**Operational target 2.4:** *Promote the development of regional and international information systems to facilitate technology transfer and technological cooperation*

*Activities:*

**2.4.1. *Initiate and conduct consultations among relevant organizations and stakeholders with a view to identify options to further regional and international cooperation in the development or improvement of information systems on technology transfer and technology cooperation***

*Main actors:* Relevant organizations and stakeholders with support by national, regional and international donors, and by national governments with support from GEF and from relevant international funding organizations as appropriate

**2.4.2. *Compilation and synthesis of information on regional and international information systems, including best-practices and opportunities for further development and make this information available through the clearing-house mechanism and other means as appropriate***

*Main actor:* the Secretariat of the Convention on Biological Diversity with input from Parties and in cooperation with relevant organizations as appropriate with support from GEF and from relevant international funding organizations as appropriate

*Timeline for implementation:* the eighth meeting of the Conference of the Parties, then ongoing

**2.4.3 *Identify and implement measures to develop or strengthen information systems of technology transfer and technology cooperation, including at the local level***

*Main actor:* Parties in cooperation with the Secretariat of the Convention, relevant organizations as appropriate, and with support from GEF as well as from relevant international funding organizations as appropriate

*Timeline for implementation:* ongoing

### **PROGRAMME ELEMENT 3: CREATING ENABLING ENVIRONMENTS**

Creating enabling environments refers to activities of governments at national and international levels that aim to create an institutional, administrative, legislative and policy environment conducive to private and public sector technology transfer and to the absorption of transferred technology, and that aim to remove technical, legislative and administrative barriers to technology transfer and technology absorption, inconsistent with international law. Multi-faceted enabling environments in both developed and developing countries are a necessary tool to promote and facilitate the successful and sustainable transfer of technologies for the purpose of the Convention on Biological Diversity. Such government activities may, *inter alia*, focus on: national institutions for research and technology innovation; legal and institutional underpinnings of technology markets both at national and international levels; and legislative institutions that introduce codes and standards, reduce risk and protect intellectual property rights, whenever they may be inconsistent with international law.

**Objective:** *To identify and put in place institutional, administrative, legislative and policy frameworks conducive to private and public sector technology transfer and cooperation, taking also into account existing work of relevant international organizations and initiatives.*

**Operational target 3.1:** *Development of guidance and advice for the application of options on measures and mechanisms to facilitate access to and transfer of technologies in the public domain and to*

*proprietary technologies of relevance for the Convention on Biological Diversity, and to foster technology cooperation*

*Activities:*

**3.1.1. *Preparation of technical studies that further explore and analyse the role of intellectual property rights in technology transfer in the context of the Convention on Biological Diversity and identify potential options to increase synergy and overcome barriers to technology transfer and cooperation, consistent with paragraph 44 of the Johannesburg Plan of Implementation***

*Main actors:* Secretariat of the Convention on Biological Diversity, WIPO and other relevant organizations;

*Timeline for implementation:* the eighth meeting of the Conference of the Parties

**3.1.2. *Compilation and synthesis of information and preparation of guidance on institutional, administrative, legislative and policy frameworks that facilitate access to, adaptation and absorption of technologies in the public domain and to proprietary technologies, especially by developing countries and countries with economies in transition, and in particular, on measures and mechanisms that:***

- (a) *Foster an enabling environment in developing countries for cooperation as well as the transfer, absorption and diffusion of relevant technologies;***
- (b) *Provide, in accordance with existing international obligations, incentives to private-sector actors as well as public research institutions in developed country Parties, to encourage cooperation and transfer of technologies to developing countries, through, e.g., technology transfer programmes or joint-ventures;***
- (c) *Promote and advance priority access for Parties to the results and benefits arising from technologies based upon genetic resources provided by those Parties, in accordance with Article 19. 2 of the Convention, and to promote the effective participation in related technological research by those Parties;***
- (d) *Promote innovative approaches and means of technology transfer and cooperation such as Type 2 partnerships, in accordance with the outcome of the World Summit on Sustainable Development, or transfers among actors.***

*Main actor:* the Secretariat of the Convention on Biological Diversity, assisted by the AHTEG on Technology transfer and cooperation and based on input from Parties and relevant international organizations

*Timeline for implementation:* the eighth meeting of the Conference of the Parties, then ongoing

***Operational target 3.2: Development and implementation of national institutional, administrative, legislative and policy frameworks to facilitate cooperation, as well as access to, adaptation, and absorption of technologies in the public domain and to proprietary technologies of relevance for the Convention on Biological Diversity, and to foster technical and scientific cooperation, as consistent with national priorities and existing international obligations***

*Main actors:* national Governments in collaboration with relevant national and international stakeholder, with support of relevant international organization as well as with support from GEF, from relevant international funding organizations and the Secretariat as appropriate

*Activities:*

*Phase I (preparatory phase):*

- 3.2.1. Identification of relevant stakeholders and sources on information**
- 3.2.2. Design and implement mechanisms for effective stakeholder involvement and participation;**
- 3.2.3. As appropriate, review, in collaboration with relevant stakeholders, existing policies and programmes and identify possible impediments to the transfer of technology of relevance for the Convention on Biological Diversity, capacity-building needs and priority areas for policy action. The study should also identify the necessary steps, if any, to improve accordingly national biodiversity strategy and action plans, national research and technology strategies and other policy planning tools;**
- 3.2.4 Identify and support community-based opportunities and initiatives for the development of sustainable livelihood technologies for local application and facilitate the pursuit of those opportunities at the local community level.**

*Timeline for implementation:* the eighth meeting of the Conference of the Parties, with further reviews as appropriate.

## **Phase II**

*Consistent with relevant international obligations and national priorities, and in synergy with activities foreseen under the programme areas and cross-cutting issues of the Convention:*

- 3.2.5. Implementation of institutional, administrative, legislative and policy measures and mechanisms to foster an enabling environment in developing countries and countries with economies in transition that would facilitate access to, adaptation and absorption of relevant technologies, and that would provide North-South and South-South cooperation;**
- 3.2.6 Adoption of legal and regulatory frameworks where appropriate and provision of incentives to private-sector actors as well as public research institutions in developed country Parties, with a view to encourage the transfer of technologies to developing countries and countries with economies in transition;**
- 3.2.7 Encourage and facilitate community-to-community sharing and transferring of knowledge and technologies through such means as community personnel exchanges, workshops and publications;**
- 3.2.8 Promotion and advancement of priority access for Parties to the results and benefits arising from technologies based upon genetic resources provided by those Parties, in accordance with Article 19, paragraph 2, of the Convention, and to promote the effective participation in related technological research by those Parties;**
- 3.2.9 Encouragement of joint research programmes with associated jointly held patents or other protection of intellectual property rights as well as other mechanisms to facilitate transfer of technologies that make use of genetic resources;**
- 3.2.10 Promotion of cooperation and technology transfer through innovative approaches such as type 2 partnerships or transfers among actors**

**3.2.11 *Strengthening of national research institutions for the adaptation and further development of imported technologies, consistent with their transfer agreement and international law, as well as the development and use of environmentally sound technologies;***

**3.2.12 *Dissemination of related experiences at national and international levels.***

*Timeline for implementation:* the ninth meeting of the Conference of the Parties, then ongoing review as appropriate

#### **PROGRAMME ELEMENT 4: CAPACITY-BUILDING AND ENHANCEMENT**

The building or enhancement of technical, scientific, institutional and administrative capacity is an issue of cross-cutting importance for the effective and timely conduct of technology assessments, for the building and strengthening of national or regional technology information systems and for the creation of enabling environments for technology transfer and cooperation. Activities under this programme element should build on existing initiatives and programmes, for instance, under other conventions and international agreements, with a view to maximize synergies and avoid the duplication of work. The long-term benefits arising from technology transfer should be understood as investments by relevant institutions and initiatives.

***Objective:*** *Technical, scientific, institutional and administrative capacity is adequate for the effective cooperation, transfer, diffusion and absorption of technology as well as technical and scientific cooperation.*

***Operational target 4.1:*** *Technical, scientific, institutional and administrative capacity is adequate for the effective and timely conduct of national technology assessments*

*Activities:*

**4.1.1 *Financial and technical support and training is provided by relevant international, regional and national organizations and initiatives as appropriate for the building or enhancement of capacity for the effective and timely conduct of national technology assessments;***

*Main actors:* International, regional and national organizations and funds as appropriate

*Timeline for implementation:* ongoing, starting at the seventh meeting of the Conference of the Parties

***Operational target 4.2:*** *Technical, scientific, institutional and administrative capacity is adequate for the development or strengthening and effective operation of national, regional and international information systems for technology transfer and technology cooperation of relevance for the Convention on Biological Diversity*

*Activities*

**4.2.1 *Assessment of capacity-building needs and opportunities for the development or strengthening and effective operation of national information systems for technology transfer and technology cooperation, including risk analysis and impact assessment***

*Main actors:* Developing country Parties and Parties with economies in transition, in collaboration with relevant national and international stakeholder and with support of relevant international organization as appropriate as well as with support from GEF and relevant international funding organizations

*Timeline for implementation:* the eighth meeting of the Conference of the Parties

**4.2.2 Financial and technical support as well as training is provided to improve the capacity of national systems of information gathering and dissemination with regard to needs and opportunities for technology transfer, in particular with regard to capacity for the effective application and use of electronic information technologies, in full synergy with existing initiatives and programmes**

*Main actors:* GEF, international, regional and national organizations and funds as appropriate

*Timeline for implementation:* ongoing, starting at the eighth meeting of the Conference of the Parties

**Operational target 4.3:** *Technical, scientific, institutional and administrative capacity is adequate for the review of national policies and programmes and the identification of barriers for the transfer of technology of relevance for the Convention on Biological Diversity, capacity-building needs and priority areas for policy action.*

*Activities*

**4.3.1 Financial and technical support and training is provided by relevant international, regional and national organizations and initiatives as appropriate for the building or enhancement of capacity for the review of existing policies and programmes and the identification of possible impediments to cooperation and the transfer of technology of relevance for the Convention on Biological Diversity, of capacity-building needs and priority areas for policy action.**

*Main actors:* Developing country Parties and Parties with economies in transition, in collaboration with relevant national and international stakeholder and with support of relevant international organization as appropriate as well as with support from GEF and from relevant international funding organizations

*Timeline for implementation:* the eighth meeting of the Conference of the Parties, then ongoing

**Operational target 4.4:** *Technical, scientific, institutional and administrative capacity is adequate for the implementation of measures and mechanisms that create an environment conducive to private and public sector technology transfer and cooperation, and to the absorption of transferred technology*

*Activities*

**4.4.1 Based on needs and priorities identified by countries, financial and technical support and training is provided by relevant international, regional and national organizations and initiatives as appropriate to foster enabling environments for technology transfer and cooperation, and in particular with regard to:**

- (a) **Building policy, legal, judicial and administrative capacity;**
- (b) **Facilitating access to relevant proprietary technologies, consistent with Article 16.2;**
- (c) **Providing other financial and non-financial incentives for the diffusion of relevant technologies;**
- (d) **Building capacities of, and empowering, relevant stakeholders, especially indigenous and local communities, with respect to access to and use of relevant technologies;**
- (e) **Providing financial and technical support and training to improve the capacity of developing countries and countries with economies in transition national research institutions for the development of technologies as well as for adaptation, dissemination and the further development of imported technologies consistent with their transfer**

*agreement and international law including through fellowships and international exchange programmes;*

- (f) Supporting the development and operation of regional or international initiatives to assist technology transfer and cooperation as well as scientific and technical cooperation, particularly those initiatives designed to facilitate south-south cooperation and south-south joint development of new technologies*

*Main actors:* GEF, international, regional and national organizations and funds as appropriate

*Timeline for implementation:* ongoing, starting at the seventh meeting of the Conference of the Parties

**26. Follow-up to the World Summit on Sustainable Development, the multi-year programme of work of the Conference of the Parties up to 2010, the Strategic Plan and operations of the Convention**

**A. Multi-year programme of work of the Conference of the Parties up to 2010**

*The following draft decision is taken from paragraphs 1-2 and 4-8 of recommendation 3 of the Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010 (UNEP/CBD/COP/7/5, annex).*

*The Conference of the Parties*

1. *Decides* that when in-depth reviews of the existing thematic areas and cross-cutting issues are undertaken, items identified as priorities by the World Summit on Sustainable Development, such as poverty alleviation, human health, sustainable communities and livelihoods, and hotspots, ecological networks and corridors, should be considered in relation to the existing programmes of work;\*

2. *Also decides* to identify for each upcoming meeting, appropriate ways to address, including within the Ministerial Segment, issues of overarching importance, particularly the relevant socio-economic issues identified by the World Summit on Sustainable Development;

3. *Further decides* that, at each of its meetings until 2010, the Conference of the Parties, possibly including its Ministerial Segment, should assess, as an explicit agenda item, the state of progress, including obstacles, in achieving the goals of the Strategic Plan and progress towards the achievement of the Convention's 2010 targets and the Millennium Development Goals and that, when considering progress in achievement, it shall also review the effectiveness of the Convention processes in facilitating this achievement;

4. *Decides* that, to the extent feasible, a maximum of six items for in-depth review should be considered at any meeting of the Conference of the Parties and that cross-cutting issues are dealt with in coherent manner taking into account the different requirements and characteristics of the issues;

5. *Also decides* that some flexibility in the multi-year programme of work should be retained in order to accommodate urgent emerging issues;

6. *Adopts* the multi-year programme of work up to 2010 annexed to the present recommendation

7. *Decides* to establish an Ad Hoc Technical Expert Group on Island Biodiversity to assist the Subsidiary Body on Scientific, Technical and Technological Advice in its work on this topic. The terms of reference of the Expert Group are provided for in Annex II of the present decision.

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\* The term "programme of work" includes work on thematic and cross-cutting issues.

*Annex I*

**MULTI-YEAR PROGRAMME OF WORK OF THE CONFERENCE OF THE PARTIES UNTIL  
2010**

	<b>New issues for in-depth consideration</b>	<b>In-depth review of ongoing work under the thematic areas and cross-cutting issues</b>	<b>Strategic issues for evaluating progress or supporting implementation*</b>
COP 8	1. Island biodiversity	1. Dry and sub-humid lands biodiversity 2. Global Taxonomy Initiative 3. Access and benefit sharing (pending decision at COP 7) 4. Education and public awareness 5. Article 8(j) and related provisions	1. Progress in implementation of the Strategic Plan and follow-up on progress towards target 2010 and Millennium Development Goals (global targets and related measures, such as monitoring and indicators and trends of biodiversity) 2. Refining mechanisms to support implementation (e.g. financial mechanism, clearing-house mechanism, technology transfer, capacity-building)
COP 9		1. Agricultural biodiversity 2. Global Strategy for Plant Conservation 3. Invasive alien species 4. Forest biodiversity 5. Incentives 6. Ecosystem approach	1. Progress in implementation of the Strategic Plan and follow-up on progress towards target 2010 and Millennium Development Goals (global targets and related measures, such as monitoring and indicators and trends of biodiversity) 2. Refining mechanisms to support implementation (e.g. financial mechanism, clearing-house mechanism, technology transfer, capacity-building)
COP 10		1. Inland waters biodiversity 2. Marine and coastal biodiversity 3. Sustainable use 4. Protected areas 5. Mountain biodiversity 6. Climate change (dependent on the outcome of COP 7)	1. Progress in implementation of the Strategic Plan and follow-up on progress towards target 2010 and Millennium Development Goals (global targets and related measures, such as monitoring and indicators and trends of biodiversity) 2. Refining mechanisms to support implementation (e.g. financial mechanism, clearing-house mechanism, technology transfer, capacity-building)

\* The Conference of the Parties will consider selected relevant items at each of its meetings.

*Annex II*

**TERMS OF REFERENCE OF THE AD HOC TECHNICAL EXPERT GROUP ON ISLAND  
BIODIVERSITY**

**A. *Mandate***

1. Guided by the Strategic Plan, the Plan of Implementation of the World Summit on Sustainable Development and the Millennium Development Goals; and taking into account *inter alia* the Convention's 2010 target and related decisions, the ongoing programmes of work of the Convention on thematic and cross-cutting issues, work being carried out in the framework of the Barbados Programme of Action, and the specificities of islands as compared to main lands, the ad hoc technical expert group will:

(a) Review the status and trends of, and major threats to, island biological diversity, paying particular attention to areas that are most vulnerable to biodiversity loss and threatened by human-induced factors;

(b) Review how ongoing work on the different thematic areas and cross-cutting issues under the Convention on Biological Diversity and related work being carried out in the framework of other processes, in particular the Barbados Programme of Action, are contributing to the implementation of the three objectives of the Convention in island ecosystems; identify significant gaps and constraints, paying particular attention to mechanisms used to support implementation (e.g. financial mechanism, clearing-house mechanism, technology transfer, capacity-building); highlight best practices in the management of island ecosystems; and identify opportunities for synergies in the implementation of work on island biodiversity;

(c) Develop proposals for future work on island biological diversity to enhance conservation of island biodiversity, sustainable use of its components and the fair and equitable sharing of benefits from the utilization of genetic resources from islands, including (i) development of global outcome- and process-oriented targets and related indicators, (ii) identification of relevant actors and partners for the implementation of the programme of work, and (iii) proposals on how to link with the Secretary General's WEHAB ("water, energy, health, agriculture, and biodiversity") initiative, and support the achievement of the Millennium Development Goals and other relevant objectives identified by the World Summit on Sustainable Development.

**B. *Duration of work***

2. The work of the Ad Hoc Technical Expert Group on Island Biological Diversity should be initiated immediately after approval of its terms of reference by the Conference of the Parties, and completed in time for the tenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, at which SBSTTA is planning to consider island biodiversity as the theme for in-depth consideration. The report of the expert group could be forwarded for information to the international meeting of the small island developing States for the review of the Barbados Programme of Action, which will take place in Mauritius in August 2004.

**B. *Implementation of the Convention and the Strategic Plan: future evaluation of progress***

*Paragraphs 1-11 of the following draft decision are taken from recommendation 2 of the Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010 (UNEP/CBD/COP/7/5, annex). Paragraphs 3 (a) and 3 (d) of that recommendation have been combined and adapted in the light of SBSTTA recommendation IX/13. The remaining paragraphs are from paragraph 47 of the note by the Executive Secretary on the development of specific targets, indicators and a reporting framework (UNEP/CBD/COP/7/20/Add.3), which, in turn, are derived from SBSTTA recommendation IX/13. Annexes I and IV-V are taken from annexes I-III of the same note by the Executive Secretary. Annexes II and III come from the annexes to the notes by the Executive Secretary on outcome-oriented targets for the programmes of work on the biodiversity of inland water ecosystems and marine and coastal biodiversity (UNEP/CBD/COP/7/20/Add.4 and 5).*

*The Conference of the Parties*

***National implementation and national biodiversity strategies and action plans:***

1. *Requests* the Executive Secretary to continue to explore ways to expand active support for developing country Parties and Parties with economies in transition, where appropriate, in the development, revision and implementation of national biodiversity strategies and action plans. This process should include the commitment and resources of civil society in the development and implementation of national biodiversity strategies and action plans;

2. *Emphasizes* that national biodiversity strategies and action plans, as the primary mechanisms for the implementation of the Convention and the Strategic Plan, should incorporate relevant aspects of the four goals of the Strategic Plan wherever it is not already the case, to enable greater contribution to the achievement of the 2010 target;

3. *Invites* developed country Parties continue to provide the support to developing country Parties, Parties with economies in transition and small island developing States, as appropriate, to develop national-level indicators;

4. *Requests* the Executive Secretary to report to Conference of the Parties, as a matter of urgency, the work required by decision V/20, paragraph 41, to allow further work to be undertaken to identify ways to support the review by Parties of national implementation;

***Review and evaluation:***

5. *Decides* to develop a framework for evaluation, including indicators and additional (intermediate) targets and timeframes leading up to 2010 to enhance the evaluation of achievements and progress in the implementation of the Strategic Plan and, in particular, its mission, and, in doing so ensure that the framework will make use, wherever possible, of existing information sources;

6. *Decides* to establish a schedule for evaluating and reviewing the Strategic Plan 2002-2010 and to allocate sufficient time in subsequent meetings of the Conference of the Parties, the Subsidiary Body on Scientific, Technical and Technological Advice and inter-sessional meetings to consider progress in the implementation of the Convention and the Strategic Plan and achievements leading up to the 2010 target in line with the multi-year programme of work for the Conference of the Parties;

7. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to evaluate changes in trends and status of biodiversity, particularly the current rate of biodiversity loss at

the global level, and *requests* the Executive Secretary, in supporting this work, to make full use of other global assessments and reporting processes such the Global Environment Outlook, Global Biodiversity Outlook and the Millennium Ecosystem Assessment as well as those of regional mechanisms, possibly by convening a liaison group to facilitate coordination with those processes for the purposes of the Convention on Biological Diversity;

8. *Requests* the Executive Secretary to participate in processes arising from the twenty-second session of the Governing Council of the United Nations Environment Programme relating to consideration of the development and establishment of an intergovernmental strategic plan for implementation support, linked to the outcome of the international environmental governance process, to ensure that it will contribute to the implementation of the Convention;

9. *Decides* to address explicitly the need to provide focused support and improve existing support mechanisms where obstacles to implementation of national biodiversity strategies and action plans have been identified, particularly when considering the results of the evaluation of progress in achievement the goals and mission of the Strategic Plan;

10. *Decides* to develop mechanisms to review the impacts and effectiveness of existing processes under the Convention, such as meetings of the Conference of the Parties, the Subsidiary Body on Scientific, Technical and Technological Advice, national focal points and the Secretariat, as part of the overall process for improving the operations of the Convention and implementation of the Strategic Plan;

11. *Recognizing* in the development of better methods to evaluate progress in the implementation of the Convention consideration could be given to making full use of the experiences of other multilateral environmental agreements, such as the United Nations Framework Convention on Climate Change, *requests* the Executive Secretary to initiate action as a follow-up to decision V/20, paragraph 41, to provide an overview of existing mechanisms and processes for review of national implementation for consideration at the eighth meeting of the Conference of the Parties.

12. *Decides* to establish, on a provisional basis, the framework of additional specific goals and targets set out in annex I below, in order to assess progress towards the 2010 global biodiversity target adopted by decision VI/26. Such goals would complement the existing goals of the Strategic Plan;

13. *Adopts* the refined proposals for the integration of outcome-oriented targets into the programmes of work of inland water biodiversity and of marine and coastal biodiversity as set out in annexes II and III of the present decision;

14. *Decides* to identify, on a provisional basis, the set of global-level indicators set out in annex V to the present decision, in order to assess progress towards the 2010 global biodiversity target adopted by decision VI/26, and the goals and targets established above, and to communicate effectively trends in biodiversity status and the impacts on ecosystem goods and services, and human well-being, during the present decade;

15. *Emphasizes* that the goals and targets referred to in paragraph 12 above should be viewed as a flexible framework within which national and/or regional targets may be developed, according to national priorities and capacities, and taking into account differences in diversity between countries;

16. *Invites* Parties and Governments to develop national and/or regional goals and targets, and, as appropriate, to incorporate them into relevant plans, programmes and initiatives, including national biodiversity strategies and action plans;

17. *Emphasizes* the need for capacity-building, especially in developing countries, in particular the least developed countries and the small island developing States among them, and countries

with economies in transition, in order to enable them to implement activities to achieve and monitor progress towards the goals and targets;

18. *Invites* the financial mechanism and other funding organizations to provide adequate and timely support for the implementation of activities to achieve and monitor progress towards the goals and targets to developing country Parties, in particular the least developed countries and small island developing States among them, and Parties with economies in transition, as appropriate;

19. *Invites* related conventions, assessment processes and relevant organizations to contribute reports and information that assist the monitoring of progress towards the 2010 targets;

20. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice at its tenth or eleventh meetings to:

(a) Develop proposals for the integration of outcome-oriented targets into each of the remaining thematic programmes of work, as appropriate, using the approach set out in annex IV to the present decision;

(b) Review the use of the provisional set of global indicators;

and report on the results to the Conference of the Parties at its eighth meeting;

21. *Requests* the working groups on access and benefit sharing, and on Article 8(j) and related provisions, respectively, to explore the options for indicators for access to genetic resources and for the fair and equitable sharing of benefits arising from their use, and for the protection of innovations, knowledge and practices of indigenous and local communities, and to report the results to the Conference of the Parties at its eighth meeting;

22. *Requests* the Executive Secretary:

(a) In cooperation with other relevant organizations and agencies, and taking into account further advice to be provided by the Subsidiary Body on Scientific, Technical and Technological Advice at its tenth or eleventh meeting, to make use of these goals, targets and indicators, in reports analysing progress towards the 2010 target, including through periodic issues of the Global Biodiversity Outlook;

(b) To make full use of the clearing-house mechanism in promoting technical cooperation to achieve the 2010 targets and facilitating information exchange on progress made;

23. *Invites* the World Conservation Monitoring Centre of the United Nations Environment Programme to support the Secretariat in facilitating and coordinating the compilation of information necessary for reporting on achievement on the 2010 target.

### *Annex I*

## **PROVISIONAL FRAMEWORK FOR GOALS AND TARGETS**

### **Protect the components of biodiversity**

#### ***Goal 1. Maintain the diversity of ecosystems, habitats and biomes***

*Target 1.1: At least 10% of each of the world's ecological regions effectively conserved.*

*Target 1.2: Areas of particular importance to biodiversity protected.*

**Goal 2. Maintain species diversity**

*Target 2.1: Restore, maintain, or reduce the decline of populations of species of selected taxonomic groups*

*Target 2.2: Status of threatened species improved.*

**Goal 3. Maintain genetic diversity**

*Target 3.1: Genetic diversity of crops, livestock, and of commercially harvested species of trees, fish and wildlife and other major socio-economically valuable species conserved, and associated indigenous and local knowledge maintained.*

**Address threats to biodiversity**

**Goal 4. Reduce Pressures from habitat loss, land use change and unsustainable water use.**

*Target 4.1: Rate of loss and degradation of natural habitats decreased*

**Goal 5. Control threats from invasive alien species**

*Target 5.1: Pathways for major potential alien invasive species controlled.*

*Target 5.2: Management plans in place for major alien species that threaten ecosystems, habitats or species.*

**Goal 6. Halt unsustainable use**

*Target 6.1: Biodiversity-based products derived from sources that are sustainably managed,*

*Target 6.2: Production areas managed consistent with the conservation of biodiversity.*

*Target 6.3: No species of wild flora or fauna endangered by international trade*

**Goal 7. Reduce pressures from climate change, pollution and soil erosion**

*Target 7.1: Pressures of climate change, pollution and soil erosion and their impacts on biodiversity and ecosystems reduced*

**Maintain and share benefits from biodiversity**

**Goal 8. Maintain capacity of ecosystems to deliver goods and services and support livelihoods**

*Target 8.1: Capacity of ecosystems to deliver goods and services maintained.*

*Target 8.2: The decline of biological resources, and associated indigenous and local knowledge, innovations and practices that support sustainable livelihoods, local food security and health care, halted*

**Goal 9. Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources**

*Target 9: All transfers of genetic resources in line with the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture and other applicable agreements.*

*Annex II*

**GLOBAL OUTCOME-ORIENTED TARGETS FOR THE PROGRAMME OF WORK ON  
INLAND WATER ECOSYSTEM BIOLOGICAL DIVERSITY**

The following goals and targets are based upon those for the implementation of the Strategic Plan of the Convention as detailed in the evaluation of progress towards the 2010 biodiversity target (UNEP/CBD/COP/7/20/Add.3). Those targets are quoted *verbatim* here as **Overall Targets** which are then applied to the programme of work on inland water ecosystem biological diversity and where necessary re-worded to make them more appropriate to that context.

***Protect the components of biological diversity*****Goal 1: Maintain the diversity of ecosystems, habitats and biomes**

**Overall target 1.1:** At least 10% of each of the world's ecological regions effectively conserved.

*Application to inland water ecosystem biological diversity: **This target can be applied directly to inland water ecosystem biological diversity.***

***Technical rationale***

The target already exists in the Global Strategy for Plant Conservation (Target 4), and is proposed to be integrated into the programme of work on inland water ecosystem biological diversity. "Ecological region" is understood to mean major groupings of inland water ecosystems by major regional and biological category (e.g., neotropical floodplain rivers, African Great Lakes, etc.). However, for inland water biological diversity the term is currently not well defined. There is a need to undertake an inventory of ecoregion types, locations and area in order to address requirements to meet this target.

The term "effectively conserved" is difficult to quantify and verify for inland water ecosystem biological diversity. Inland water ecosystems, and protected areas, are very vulnerable to impacts from beyond the boundaries of any geographic limits set. Therefore, "effectively conserved" must include adequate management of the catchment or basin. In effect, an ecosystems based approach must be taken to achieving this target for inland water ecosystem biological diversity. The target must be for conservation of full catchment based ecosystems (defined using an ecosystems based approach).

**Overall target 1.2:** Areas of particular importance to biodiversity protected.

*Application of the target to inland water ecosystem biological diversity: **Protection of 50 per cent of the most important areas for inland water ecosystem biological diversity assured.***

***Technical rationale***

This will also require an ecosystem based approach in order to ensure that areas are fully "protected". This target refers to the identification and conservation of sites/areas of particular importance for inland water ecosystem biological diversity (for example, "hot spots" within ecological regions). A report on the elaboration of the indicative list of categories of components of inland water

ecosystem biological diversity important for its conservation and sustainable use, in relation to Annex I of the Convention, was presented to the eighth meeting of SBSTTA as an information document (UNEP/CBD/SBSTTA/8/INF/4). A workable classification system for inland water ecosystems has also been developed under the Convention on Wetlands (Ramsar). In paragraph 7 (a) of its recommendation VIII/2, SBSTTA recommended that the Conference of the Parties request those Parties to which this is appropriate, to adopt the Ramsar classification of wetlands as an interim classification system.

Depending upon the nature and size of the particular area, it is normally necessary not only to conserve the area itself but also to maintain connectivity between areas which have natural ecological linkages. For example, at the river basin level, a network of small protected areas in strategic places can be a significant benefit but the necessary connections between them (normally through river channels) must be maintained if ecological integrity is to be sustained. For example, for migratory species of fish, it is necessary to protect feeding grounds (often in the lower course of the river) and breeding grounds (often in upper reaches) and the ability of fish to move freely between these. For migratory water birds, for example, this requirement can often apply between continents.

## **Goal 2: Maintain species diversity**

**Overall target 2.1:** Restore, maintain or reduce the decline of populations of species of selected taxonomic groups.

*Application of target to inland water ecosystem biological diversity: **This target can be applied directly to inland water ecosystem biological diversity without modification. It is assumed that “population” means both absolute number (abundance) of individuals and the number of distinct populations (and sub-populations) of individuals. The target can be further refined and quantified in relation to specific taxa. This should be feasible for at least many water birds, some groups of freshwater fishes, aquatic mammals, most amphibians and many reptiles. The Conference of Parties may wish to consider requesting SBSTTA to further refine, quantify and set these targets in collaboration with specialists in the relevant taxa.***

### ***Technical rationale***

Although data on trends in species for inland water ecosystems are generally very difficult to obtain, and often inaccurate, reasonable to good data exist for certain taxa. The “sample of species” can be based on these existing sources of data but it should be noted that the sample will be biased. A particular problem is that good data are often available for those taxa that are popular with special interest groups (and especially birds). Whilst this is a benefit, knowledge is often absent for taxa that can be important for livelihoods, particularly of the rural poor, and therefore considerations of sustainable use. One problem is the very poor quality and quantity of global data at the species level for fisheries in inland waters. <sup>47/</sup>

**Overall target 2.2:** Risks to known currently threatened species reduced.

*Application of target to inland water ecosystem biological diversity: **[80%] of the world’s known threatened species of plants and animals dependent upon inland water ecosystems conserved in situ.***

### ***Technical rationale***

It is noted that this target refers to the status of *known* threatened species – that is, for example, as per the IUCN Red List. The target for plants is 60%. However, the number of inland water species listed is very likely a small fraction of those actually threatened. There is also a strong argument that if a species is known to be under threat then something should be done to improve its conservation status.

<sup>47/</sup> As acknowledged by the FAO itself ([www.fao.org](http://www.fao.org)).

Therefore, the higher target of 80% is suggested here, and there is justification for a 100% target. The Conference of the Parties may wish to request SBSTTA to consider and set the appropriate target after further consultations. Again, it is also feasible to set targets by species group.

References to the conservation of species *ex-situ* (e.g., for plants) is not considered feasible for most inland water ecosystem biological diversity (except certain plant groups – which are assumed to be considered under the Global Strategy for Plant Conservation). Although *ex-situ* conservation techniques for other taxa (e.g., fish) are emerging (e.g., cryopreservation), the technology is more complex and there is limited confidence that *ex-situ* conservation is sustainable for large numbers of taxa.

### **Goal 3: Maintain genetic diversity**

**Overall target 3.1:** Genetic diversity of crops, livestock, and of commercially harvested species of trees, fish and wildlife and other major socio-economically valuable species conserved, and associated indigenous and local knowledge maintained.

**Application of the target to inland water ecosystem biological diversity:** Prevent further significant losses of known genetic diversity of commercially harvested species of fish and other major socio-economically valuable species that are dependent upon inland water ecosystems, and associated indigenous and local knowledge maintained.

#### *Technical rationale*

Knowledge of genetic diversity of inland water ecosystem biological diversity is very poor but it is available for a limited number of taxa. Therefore, the proportion of genetic diversity where data are available is very small. The commitment to prevent significant further loss, therefore, applies to a relatively small number of taxa. For plants, the commitment is to conserve 70% of genetic diversity but a larger number of taxa is involved due to the better knowledge of the genetic diversity of crops and other commercial groupings.

The target refers to “commercially harvested species” but it is assumed that this includes their wild relatives. This is important. For example, much wild genetic diversity is not harvested directly but can be impacted by farming and other activities using commercial domesticated strains.

More specific outcome oriented targets with indicators can be developed and applied at the regional and national levels. These might include, for example: data on status and trends of wild salmonid (salmon and trout) genetic resources. Also, a number of process indicators will help to identify progress towards conserving genetic diversity in situations where more direct outcome-oriented targets (with quantifiable indicators) are difficult to apply. For example: adoption and implementation of policies and procedures for the conservation of genetic diversity by the aquaculture and other relevant sectors (including monitoring implementation of the Code of Conduct for Responsible Fisheries of the FAO and application of the Addis Ababa principles and guidelines for sustainable use.) <sup>48/</sup>

#### *Address threats to biodiversity*

### **Goal 4. Reduce pressures from habitat loss, land-use change and unsustainable water use**

**Overall target 4.1:** Rate of loss and degradation of natural habitats decreased.

**Application of the target to inland water ecosystem biological diversity:** This target can be applied directly to inland water ecosystem biological diversity. *The Conference of Parties may wish to consider requesting SBSTTA to elaborate a specific quantitative target prior to the eighth meeting of the*

<sup>48/</sup> UNEP/CBD/SBSTTA/9/9 and relevant information documents.

*Conference of the Parties. This would need, inter alia, to consider applying a quantified target to each habitat type, etc.*

#### **Technical rationale**

It is critical to include reference to “unsustainable” use of water under this goal. Water use, for example, affects ecosystem quality (without promoting habitat loss) and the dynamics of inland water ecosystems. “Loss of habitat” alone does not necessarily cover all threats to inland water ecosystem biological diversity in that habitats can remain physically intact but their quality or suitability can be eroded due to changes in the ecosystem brought about by unsustainable use of water (depending on the definition of “habitat”). Direct attention to water as a major area of concern also aligns the work programme better with similar concerns in related initiatives (for example, both the World Summit on Sustainable Development and the MDGs refer specifically to the need to improve water policies and management). Similarly, “land-use change” is important, does not comprehensively address threats to inland water ecosystem biological diversity (since the “aquatic” part of aquatic ecosystems is not land and can be modified irrespective of land-use changes).

The actual target itself refers to “degradation” of habitat which is appropriate since it includes both loss of habitat (i.e., reductions in number or area) and reductions in the quality or ecological functioning of habitat (although there is scope, as mentioned previously, to quantify this target).

“Targets” for land-use and habitat loss would most logically be set also for work programmes in other thematic areas. Loss of habitat (etc.) in inland water ecosystems is invariably caused by sector-based activities (e.g., agriculture, forestry). The key requirement here is when activities in other sectors is considered, “sustainability” must include consideration of impacts upon inland water ecosystem biological diversity. That is, for example, “sustainable agriculture” is that which sustains not only agricultural production but also enables inland water ecosystem biological diversity to be sustained (for example, through more efficient use of water for irrigation). Again, adopting an ecosystems based approach to such issues is the most logical way forward.

#### **Goal 5: Control threats from invasive alien species**

**Overall target 5.1:** *Pathways for major potential alien invasive species controlled.*

*Application of the target to inland water ecosystem biological diversity: **This target can be applied to inland water ecosystem biological diversity directly.***

#### **Technical rationale**

The requirements for inland water ecosystem biodiversity are considered little different to those for most other ecosystems. The relevant pathways are also similar, although there may be differences in the relative importance of the various potential pathways. One consideration for inland water ecosystem biological diversity is that many alien species, once introduced, are very difficult to subsequently manage (particularly for submerged taxa such as fish and invertebrates). In effect this means that priority should be given to preventing introduction by controlling pathways. Inland water ecosystem biodiversity is under great threat due to the rapidly expanding aquaculture sector – but this has not been assessed relative to other thematic areas.

**Overall target 5.2:** Management plans in place for major alien species that threaten ecosystems, habitats or species.

*Application of the target to inland water ecosystem biological diversity: **This target can be applied directly to the programme of work on inland water ecosystem biological diversity.***

**Technical rationale**

In the evaluation of progress towards the 2010 biodiversity target (UNEP/CBD/COP/7/20/Add.3), the target for plants is quantified “for at least 100 major alien species”. Such a quantified target has not been proposed for inland water biological diversity since it is considered (a) that there are very many more than the 100 potential target alien species, including a large number of plants (but the number is not currently assessed), and (b) in theory, “management plans” should be in place for all major alien species.

**Goal 6: Halt unsustainable use**

**Overall target 6.1:** Biodiversity-based products derived from sources that are sustainably managed. <sup>49/</sup>

**Application of the target to inland water ecosystem biological diversity:** At least [80/50 percent] of products from inland water ecosystem biological diversity derived from sustainable sources

**Technical rationale**

This target is designed to refer to “exploitation” of wild resources (that is, **mainly** capture fisheries **but also hunting and gathering of non-fisheries products**). The Conference of Parties may wish to consider requesting SBSTTA to elaborate a specific quantitative target prior to the eighth meeting of the Conference of the Parties.

“Managed on the basis of sustainability” is very difficult to define for inland water ecosystem biological diversity because the two major problems of environmental degradation, and loss, and over-exploitation are inter-dependent.

“Products” should include all benefits and not be limited to things which are directly consumed (for example, including recreational fisheries).

The FAO Code of Conduct for Responsible Fisheries is a good basis for management for sustainability for both fisheries and aquaculture. A quantitative target could be set based upon number of Parties or ecosystems where that code is effectively implemented. The Code of Conduct for Responsible Fisheries of the Food and Agriculture Organization of the United Nations is a very good framework for the identification of appropriate approaches to sustain fisheries and aquaculture.

**Overall target 6.2:** Production areas managed consistent with the conservation of biodiversity.

*Application of target to inland water ecosystem biological diversity: **[At least 50] percent of aquaculture areas in inland water ecosystems managed consistent with the conservation of inland water biological diversity.***

**Technical rationale**

It is assumed that in this target “production areas” refers to areas specifically managed for aquaculture (fish farming) or where the activity constitutes a major use. Hence, the objective here is to promote sustainable farming (fish farming) as opposed to sustainable “hunting” (fishing) which is addressed under target 6.1.

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<sup>49/</sup> The term “sustainably managed” is understood to mean “managed for sustainability” – that is the management objective is that the biodiversity or resources themselves are sustained (not that management itself is sustained).

The Conference of the Parties may wish to consider requesting SBSTTA further elaborate this target based upon further advice of experts in the field.

**Overall target 6.3:** No species of wild flora or fauna endangered by international trade.

*Application of target to inland water ecosystem biological diversity: Applies directly without qualification or change*

## **Goal 7. Reduce pressures from climate change and pollution**

**Target 7.1:** Pressures of climate change, pollution and soil erosion and their impacts on biodiversity and ecosystems reduced.

*Application of target to inland water ecosystem biological diversity: This target applies directly to inland water ecosystem biological diversity. Specific appropriate quantitative target may be elaborated by SBSTTA prior to the eighth meeting of the Conference of the Parties for the following: pollution, eutrophication and sedimentation in inland water ecosystems.*

### ***Technical rationale***

For the present purposes “pollution” includes eutrophication and sedimentation. Technically, pollution refers to the entry of unnatural agents (chemicals etc.) into the environment. For inland water ecosystems an equally important problem is the build up of natural compounds, for example nutrients (eutrophication) or sediments (sedimentation). Similarly, the reduction below natural levels of compounds (e.g., nutrients or sediments) can also be problematic.

The problems of pollution (etc.) are largely brought about by unsustainable activities on land. This points to the need to ensure adequate attention to the requirements of inland water ecosystem biological diversity throughout all goals and targets as applied to other thematic areas. That is, necessary goals and targets cannot be addressed through the programme of work on inland water ecosystem biological diversity alone. Inland water ecosystems are impacted by all the sectors and hence are more akin to a “cross-cutting” theme than a thematic area of work. This makes goals and targets for inland water ecosystem biological diversity difficult to develop but it can only be achieved through a collaborative process. Inland water ecosystems probably present the strongest case for the effective application of the ecosystems approach.

### ***Maintain and share benefits from biodiversity***

**Goal 8.** Maintain capacity of ecosystems to deliver goods and services and support livelihoods

**Overall target 8.1:** Capacity of ecosystems to deliver goods and services maintained.

**Application of target to inland water ecosystem biological diversity:** This target can be applied directly to the programme of work on inland water ecosystem biological diversity. Specific appropriate targets may be elaborated and refined by SBSTTA prior to the eighth meeting of the Conference of the Parties in the light of the findings of, *inter alia*, the Millennium Ecosystem Assessment.

### ***Technical rationale***

This is a very important goal as it relates to inland water ecosystem biological diversity. Ecosystem goods and services provided by inland water ecosystems are currently seriously underestimated in importance. A major requirement is to adopt an ecosystem based approach to management. This can provide a framework under which the various potentially conflicting demands upon water can be addressed. Similarly, the “livelihoods” based approach offers a very useful tool to

compare the socio-economic benefits of development or management options. Ecosystem and livelihoods based approaches go very well together and offer significant hope for achieving the objectives of the Convention for inland water ecosystem biodiversity.

Livelihood is such an important issue for inland water ecosystem biological diversity (and other thematic areas) that consideration might be given to having a goal, with targets, devoted specifically to it. This would also enhance the clarity of linkages between these goals and targets and those of related human development goals.

“Sustaining livelihoods” is a complex concept for inland water ecosystem biological diversity, in particular because the water itself can be used in a number of potentially conflicting ways to “improve” livelihoods of different communities or interest groups. Refinement of targets may consider that the objective is not necessarily to maintain the *status-quo* of livelihoods benefits of existing stakeholders – but to consider benefits for all stakeholders and to ensure the benefits of future use of ecosystem goods and services are shared equitably. Particular attention needs to be given to the livelihoods of people who currently depend directly upon resources derived from inland water ecosystem biological diversity. This is particularly important in many developing countries. For example, if not properly and carefully implemented, water management activities can re-allocate the benefits of water resources from existing to new users, with a net loss in socio-economic value. This is invariably accompanied by a loss of the livelihoods benefits of biodiversity and the undermining of the sustainability of biodiversity at the local level.

**Overall target 8.2:** The decline of biological resources, and associated indigenous and local knowledge, innovations and practices that support sustainable livelihoods, local food security and health care halted.

*Application of target to inland water ecosystem biological diversity: **This target applies directly to inland water ecosystem biological diversity.***

#### ***Technical rationale***

Comments are as per target 8.1

Two major components of the target are (i) the decline of biological resources (which is also covered extensively under other targets), and (ii) indigenous and local knowledge (etc.). It is proposed that the working group on Article 8(j) and related provisions may be invited to consider the need for additional targets related to the protection of indigenous and local knowledge, innovations and practices.

This target contains multiple subjects and objectives which might make the development of indicators difficult, but not necessarily impossible.

*Annex III*

**GLOBAL OUTCOME-ORIENTED 2010 TARGETS FOR THE PROGRAMME OF WORK ON  
MARINE AND COASTAL BIOLOGICAL DIVERSITY**

**A. Introduction**

In accordance with decision VI/9, the targets presented here should be viewed as a flexible framework within which national and/or regional targets may be developed, according to national priorities and capacities, and taking into account differences in diversity between countries. Parties and Governments are invited to develop national and/or regional targets, and, as appropriate, to incorporate them into relevant plans, programmes and initiatives, including national biodiversity strategies and action plans.

Actions to reach these targets should be undertaken in the context of the ecosystem approach, which is the primary framework for the implementation of the Convention. The importance of the ecosystem approach in ensuring the long-term productivity and sustainability of marine and coastal living resources and environments has also been highlighted by the World Summit on Sustainable Development.

The effective implementation of actions to reach these targets will require capacity-building and financial resources for developing country Parties, in particular the least developed and small island developing States among them. Therefore, Parties, other Governments, the financial mechanism, and funding organizations are invited to provide adequate and timely support towards work aimed at achieving these targets. In addition, there is a need for cooperation within and between regions and countries, for the provision of alternative livelihood options for coastal communities that depend largely on fisheries resources, and for ensuring the fair and equitable sharing of benefits arising from the use of marine and coastal genetic resources.

**Goal 1. Maintain the diversity of ecosystems, habitats and biomes**

**Overall target 1.1:** At least 10% of each of the world's ecological regions effectively conserved

*Specific target 1.1 (Application to marine and coastal ecosystems): **This target can be directly applied to marine and coastal ecosystems in the following way: at least 10% of each marine and coastal ecological region globally effectively conserved***

***Technical rationale***

According to paragraph 6 of SBSTTA recommendation VIII/3 B, marine and coastal protected areas are an essential element in the conservation and sustainable use of marine and coastal biodiversity. However, current data indicates that less than 0.5% of the world's oceans are protected. The World Summit on Sustainable Development, in paragraph 31 (c) of its Plan of Implementation, adopted a target of developing a representative network of marine and coastal protected areas by 2012, and this target was also endorsed in paragraph 9 of recommendation VIII/3 B. The present target and target 1.2 should be viewed in the context of this 2012 target.

The purpose of the present target is to: (i) increase the area of marine environment included in marine and coastal protected areas; (ii) increase the representation of different habitats in marine and coastal protected areas, including ecosystems under-represented to date, such as those in areas outside of

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national jurisdiction, where such areas should be established consistent with international law, and based on scientific information; and (iii) increase the effectiveness of marine and coastal protected areas. Effective conservation in this context refers to either: (i) representative areas where extractive uses are excluded and other human pressures minimized; or (ii) areas where threats are managed for the purposes of biodiversity conservation and/or sustainable use (see SBSTTA recommendation VIII/3 B, para. 11). In order to be truly effective, and in accordance with SBSTTA recommendation VIII/3 B, marine and coastal protected areas should be embedded in a framework of sustainable management practices and actions to protect biodiversity over the wider marine and coastal environment.

The target is consistent with SBSTTA recommendation IX/4 and with the recommendations of the World Parks Congress stating that there is an urgent need for action to address the severe under-representation of marine ecosystems in the global protected areas system. Recommendation 5.22 of the 2003 World Parks Congress, as well as recent research findings, <sup>50/</sup> indicate that approximately 20-30% of each marine habitat type should be protected in order to achieve sustainable use of living resources. The 20-30% figure could be viewed as a longer-term goal, which should be adjusted as required in the context of adaptive management. Management action should not be delayed in the hope of acquiring perfect knowledge and scientific understanding. On the contrary, better use of existing knowledge can be made in the design process, and management approaches adjusted in light of monitoring and research efforts that are oriented towards providing the necessary feedback for management.

This target aims at implementing the precautionary approach through protecting representative examples of ecosystem types of which relatively little is currently known. The target also implies greatly increasing the protection provided for ecosystems that have so far been under-represented. For areas outside of national jurisdiction, the World Parks Congress in recommendation 5.23 put forward a target figure of five high-seas marine protected areas by the year 2008. Such marine protected areas should be scientifically significant and globally representative, and, in accordance with SBSTTA recommendations VIII/3 and IX/4, be established consistent with international law, including the United Nations Convention on the Law of the Sea. Adequate monitoring and enforcement should also be implemented.

The target should be implemented in a broader context of the ecosystem approach, by which effective integrated marine and coastal area management (IMCAM), or equivalent approaches, should be applied to the entire marine and coastal environment. In addition, activities to reach this target should be implemented together with those associated with goals 4, 6, 7 and 8, which emphasize the need for a sustainable management framework for all human activities. Communication, education and outreach activities are also important to the success of this target.

**Overall target 1.2:** Areas of particular importance to biodiversity protected

*Application to marine and coastal ecosystems: **Particularly vulnerable marine and coastal ecosystems effectively protected, including at least 30% of known tropical and cold water coral reefs and seamounts, and [60%] of known nursery areas and spawning aggregations.***

<sup>50/</sup> For example, Roberts, C.M., B.S. Halpern, Rr. Warner, and S. Palumbia (2002) Designing marine reserve networks: why small, isolated protected areas are not enough. *Conservation Biology in Practice* 2: 9-17; J.A. Bohnsack<sup>50</sup> B. Causey, M.P. Crosby, R.B. Griffis, M.A. Hixon, T.F. Hourigan, K.H. Koltes, J.E. Maragos, A. Simons and J.T. Tilmant (2000) A rationale for minimum 20-30% no-take protection. *Proceedings of the 9th International Coral Reef Symposium*, Bali, Indonesia, 2000; Botsford, L.W. and S.D. Gaines (2001) Dependence of sustainability on configuration of marine reserves and larval dispersal distance. *Ecology Letters*. 4: 144-150; Mangle, M. (2000) On the fraction of habitat allocated to marine reserves. *Ecology Letters* 3(1): 15-22.; Lindholm, J.P., P.J. Auster, M. Ruth, and L. Kaufman (2000) Modeling the effects of fishing and implications for the design of marine protected areas: Juvenile fish responses to variations in seafloor habitat. *Conservation Biology* 15: 424-437; Bohnsack, J.A. (2000) A comparison of the short term impacts of no-take marine reserves and minimum size limits. *Bulletin of Marine Science* 66: 615-650.

### **Technical rationale**

The Conference of the Parties has consistently emphasized the importance of coral reefs and their vulnerability, as is evident in the language of decisions IV/5, V/3 and VI/3. In keeping with these decisions, this target aims to provide increased protection for vulnerable ecosystems, such as coral reefs, seamounts, nursery areas and spawning aggregations. Although the target specifies these particular ecosystems and areas, it also recognizes that there are many other vulnerable marine and coastal ecosystems, and that action to protect them should also be taken in the context of this target.

This target reflects recent data from the Global Coral Reef Monitoring Network (GCRMN) and Coral Reef Degradation in the Indian Ocean (CORDIO) project, which concluded that reefs that are highly protected and are not stressed were better able to recover from bleaching events. The 30% target is based on recent research findings.<sup>51/</sup> It also reflects recommendation VIII/3 B, paragraph 19, in which SBSTTA agreed on the need to protect seamounts and cold water coral reefs. It should be noted that effective protection in regards to seamounts and cold water coral reefs can be achieved through the application of tools, such as marine protected areas, or through prohibiting certain activities detrimental to their biodiversity, such as bottom trawling. The immediate and urgent need to manage risks to marine biodiversity of seamounts and cold water coral reefs, through, e.g. elimination of destructive fishing practices, has been highlighted in a number of international forums, including the recent fourth meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea, the World Parks Congress (recommendation 5.2.3 and the Congress document on emerging issues (UNEP/CBD/SBSTTA/9/INF/21/Add.4)), the 2003 Defying Ocean's End Conference, the Tenth Deep-Sea Biology Symposium, and the Second International Symposium on Deep Sea Corals. In addition, the implementation of effective monitoring and enforcement regimes is important for ensuring the effective application of this target.

The target also aims to increase protection of nursery and spawning areas by implementing time/area closures and other effective protection measures for nursery grounds and periods, including elimination of destructive fishing practices and gear. This acknowledges that the protection of nursery and spawning grounds is a critical step in the creation of sustainable fisheries and in the development of an ecologically functional marine protected areas network (and links it with overall target 7.1). Protection of nursery and spawning areas has been identified as a priority activity in decision IV/5 of the Conference of the Parties, and in paragraph 32 (c) of the Plan of Implementation of the World Summit. The Conference of the Parties may wish to request SBSTTA to undertake further work to determine a scientifically sound percentage target for the protection of nursery and spawning areas.

### **Goal 2. Maintain species diversity**

**Overall target 2.1:** Maintain, restore or reduce the decline of populations of species of selected taxonomic groups

**Overall target 2.2:** Risk to currently threatened species reduced

*Combined application to marine and coastal ecosystems: **Effective programmes to conserve in situ, [90%] of the known globally threatened and endangered marine species established and implemented.***

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<sup>51/</sup> E.g. Hughes, T.P., Baird, A.H., Bellwood, D.R., Card, M., Connolly, S.R., Folke, C., Grosberg, R., Hoegh-Guldberg, O., Jackson, J.B.C., Kleypas, J., Lough, J.M., Marshall, P., Nyström, M., Palumbi, S.R., Pandolfi, J.M., Rosen, B. and J. Roughgarden (2003) Climate Change, Human Impacts, and the Resilience of Coral Reefs. *Science*, vol. 301: 929-933

**Technical rationale**

Reaching the overall target of significant reduction of the current rate of marine and coastal biological diversity loss by the year 2010 will require the effective maintenance and recovery of threatened species, including those listed in the IUCN Red List of Threatened Species (currently 737 marine species), in networks of protected areas or through other appropriate and effective management measures over the wider seascape. It will also require increased and urgent efforts to identify marine species whose life history or habitat requirements make them vulnerable to extinction and to add them to the lists of globally threatened and endangered species, where necessary, as well as to intensify efforts to prevent such vulnerable species from becoming globally threatened or endangered. It should be noted that as awareness of threatened and endangered marine and coastal species increases, it is likely that more of them will become listed, and current efforts, such as the Census of Marine Life, will likely increase our knowledge of existing marine species, as well as of their vulnerability. Because of this, the target refers to all *known* species.

Activities undertaken to reach this target should be coupled with efforts to identify, by 2010, all species that are globally endangered and threatened. The conservation of such not yet identified species is best undertaken through the use of precautionary tools, such as networks of highly protected MCPAs (see targets under goal 1). This target has been adapted from the 2003 World Parks Congress recommendation 5.04. The percentage (90%) may require further consultations, and to this end, the Conference of the Parties may wish to request SBSTTA to undertake further work to determine a scientifically sound target percentage. Ideally, measures should be undertaken to conserve *in situ* 100% of threatened and endangered species. Activities to reach this target should be implemented together with those associated with goals 1, 4, 6, 7, and 8 in order to emphasize the need to undertake species management in an ecosystem context.

**Goal 3. Maintain genetic diversity**

**Overall target 3.1:** Genetic diversity of crops, livestock, and of commercially harvested species of trees, fish and wildlife and other major socio-economically valuable species conserved, and associated indigenous and local knowledge maintained

*Application to marine and coastal ecosystems: Further significant losses of known genetic diversity of commercially harvested fish and other major socio-economic marine and coastal species prevented.*

**Technical rationale**

Genetic diversity is lost through reduction of population size caused by, for example, over-harvesting (as is the case in species targeted by unsustainable fisheries), habitat alteration and destruction, toxic materials, and invasive species. The loss of genetic diversity in the seas and coastal areas is not well documented, but is thought to be substantial because historical over-fishing has caused massive reduction in the abundance of large consumer species. <sup>52/</sup> Small populations contain less genetic variation than large ones, reducing their adaptability, for example, to climate change, and their ability to recover from over-harvesting, as is thought to be the case with the northern right whale. This goal aims to conserve genetic diversity among and within populations in order to increase the capability of populations and individual species to adapt to rapid environmental change. Because genetic diversity of marine and

<sup>52/</sup> Jackson, J.B.C., Kirby, M.X., Berger, W.H., Bjorndal, K.A., Botsford, L.W., Bourque, B.J., Bradbury, R.H., Cooke, R., Erlandson, J., Estes, J.A., Hughes, T.P., Kidwell, S., Lange, C.B., Lenihan, H.S., Pandolfi, J.M., Peterson, C.H., Steneck, R.S., Tegner, M.J. and R.R. Warner (2001) Historical overfishing and the recent collapse of coastal ecosystems. *Science*, Vol 293, pp. 629-638.

coastal species is poorly known, the target itself focuses only on commercially harvested fish and other socio-economically important species with known genetic diversity, such as, for example, salmon and sea turtles. Activities to reach this target (including the maintenance of general habitat character, removal of severe selective pressures and prevention of escapes of alien species) should be implemented together with those associated with associated with goals 1, 2, 4, 5, 6, 7, and 8.

#### **Goal 4. Reduce pressures from habitat loss, land use change and unsustainable water use**

**Overall Target 4.1:** Rate of loss and degradation of natural habitats decreased

*Application to marine and coastal ecosystems: **Rate of loss and degradation of natural marine and coastal habitats, such as mangroves, coastal wetlands, seagrasses and coral reefs, decreased***

##### ***Technical rationale***

Habitat degradation is a major cause of biodiversity loss in the marine and coastal environment. According to *the third Global Environment Outlook (GEO-3)*, the driving force for physical alteration of habitats is ill-planned, and accelerating, social and economic development in coastal areas, which itself results from such increasing pressures as population, urbanization and industrialization, maritime transport and tourism. Estimates show that almost 50% of the world's coasts are currently threatened by development-related activities. Approximately 66% of the human population, or close to four billion, now live within 80 kilometres of the coast, with this figure expected to increase to 75% by 2020. The increase in coastal populations and economic activities is leading to an expansion of the direct use of coastal resources and negative human-induced changes to ecosystems. Mangroves, other coastal wetlands, seagrasses and coral reefs are particularly threatened. According to the 2001 report *A Sea of Troubles*, produced by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) half of the world's wetlands and over half of the world's mangrove forests were lost during the twentieth century. The loss of mangroves leads to coastal erosion and loss of nursery areas, causing wide-spread detrimental effects on biodiversity.

Activities to reach this target include the implementation of effective integrated marine and coastal area management. The Conference of the Parties may wish to consider requesting SBSTTA to undertake further work to determine a scientifically sound percentage figure for this target.

#### **Goal 5. Control threats from invasive alien species**

**Overall target 5.1:** Pathways for major potential alien invasive species controlled.

*Application to marine and coastal ecosystems: **All major pathways for potential alien invasive species in the marine and coastal environment controlled.***

##### ***Technical rationale***

The main sources of unintentional introductions of invasive alien species into the marine environment are considered to be ballast water from ships, and through hull fouling and other ship structure sources, and mariculture. Therefore, controlling these vectors is likely to have the greatest effect in reducing the number and severity of invasions. However, this target also recognizes that other sources

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of introductions exist (for example trade in marine species, and aquarium releases or escapes) and that controlling these pathways through effective regulation is important.

The effective implementation of the draft IMO International Convention on the Control and Management of Ships' Ballast Water and Sediments, once adopted, will be a key contribution to this target. Development and effective implementation of new ballast water treatment technologies to eliminate need for open-ocean discharge, will also be necessary.<sup>53/</sup> Also essential will be the identification and elimination of other potential pathways for introduction of alien species, such as the development of an international regime to address hull-fouling as a vector, development of programmes to eradicate invasive alien species and other appropriate measures.

The control of pathways is regarded as the most effective way to address the problem of invasive alien species in the marine environment, as eradication of an already established species is extremely difficult, if not impossible. This target is adapted from paragraph 34 (b) of Plan of Implementation of the World Summit.

### **Goal 6. Halt unsustainable use**

**Target 6.1:** Biodiversity-based products derived from sources that are sustainably managed

*Application to marine and coastal ecosystems: A minimum of [80 %] of all fishery products from wild populations derived from sources that are sustainably managed.*

#### ***Technical rationale***

According to recent statistics of the Food and Agriculture Organization of the United Nations, 47% of global fisheries are fully fished, while 18% are overfished and 9% depleted. In addition, 90% of large predatory fish biomass worldwide has been lost since pre-industrial times<sup>54/</sup> and the mean trophic level of fisheries landings globally have declined at a rate of approximately 0.1 per decade.<sup>55</sup> Overfishing affects habitats, food webs and non-target species, yet the impacts on biodiversity on the level of ecosystems, species and genes are poorly researched. Nevertheless, we know that by-catch amounts to approximately 30 million tonnes of sea life each year, and it is estimated that about 25% of catches worldwide are discarded. High impact fishing (including bottom trawling, long lining, gill netting, and dynamite fishing) causes damage to the biodiversity of sensitive habitats, such as cold-water coral reefs and seamounts.

This target should be viewed as a step towards achieving the target put forward in paragraph 31 (a) of the Plan of Implementation of the World Summit on Sustainable Development. The target of the World Summit on Sustainable Development aims to achieve 100% sustainability by the year 2015 through maintenance and restoration of fish stocks to levels that can produce maximum sustainable yield. This would imply that 70 - 80% sustainability would need to be reached by 2010, if the 2015 target is to be achieved.

Sustainability in this context can be defined through the principles and criteria put forward by the Marine Stewardship Council (<http://www.msc.org/>), which are based on the Code of Conduct for Responsible

<sup>53/</sup> The draft Ballast Water Convention still condones the dumping of untreated ballast water into the open ocean. Scientists have raised concerns that some coastal species may thrive in the open ocean as temperatures rise, and pervasive marine debris (especially plastics) is available to provide them shelter. Development of new *in situ* treatment technologies, or other approaches, therefore remain essential to eliminate the need for open ocean discharge of untreated ballast water.

<sup>54/</sup> Myers, R.A. and B. Worm (2003) Rapid Worldwide Depletion of Predatory Fish Communities. *Nature*, vol 423: 280-283.

<sup>55</sup> Pauly, D, Christensen, V., Dalsgaard, J., Froese, R., and F. Torres (1998) Fishing Down Marine Food Webs. *Science*, vol 279: 860-863.

Fisheries of the Food and Agriculture Organization of the United Nations. The principles and criteria reflect the recognition that a sustainable fishery is based on (i) the maintenance and re-establishment of healthy populations of targeted species; (ii) the maintenance of the integrity of ecosystems; (iii) the development and maintenance of effective fisheries management systems, taking into account all relevant biological, technological, economic, social, environmental and commercial aspects; and (iv) compliance with relevant local and national local laws and standards and international understandings and agreements. By aiming for a greater degree of sustainability, the target also addresses destructive fishing practices, the minimization of by-catch, and the protection of habitats from harmful fishing gear. It should be noted that parts of the industry are already moving in this direction. For example, Unilever, the world's leading supplier of fast moving consumer foods, has committed itself to buy fish only from sustainable stocks by 2005.

This target is related to the targets under goal 1, as marine and coastal protected areas present a key tool for achieving sustainable fisheries. However, as indicated under the rationale for target 8.1, achieving sustainable fisheries and eliminating destructive impacts will require broader efforts to develop and implement a sustainable fisheries management framework in an ecosystem context that incorporates the protection of marine biodiversity. For example, the United Nations Fish Stocks Agreement contains such principles, but it needs to be more widely ratified and implemented. It should also be applied to all high seas fish stocks, not just those that are highly migratory or straddling. Paragraph 31 (d) of the Plan of Implementation of the World Summit also puts forward a number of actions that will contribute to the achievement of this target.

**Target 6.2:** Production areas managed consistent with the conservation of biodiversity

*Application to marine and coastal ecosystems: [60-80%] of mariculture facilities operated consistent with the conservation of biodiversity.*

According to the Ad Hoc Technical Expert Group on Mariculture, all forms of mariculture affect biodiversity at the genetic, species and ecosystem level. The main effects include habitat degradation, disruption of trophic systems, depletion of natural seedstock, transmission of diseases, and reduction of genetic variability. The biodiversity effects of pollutants, such as chemicals and drugs, are not very well studied, though are generally assumed to be negative. While mariculture output is still dwarfed by the tonnage of farmed freshwater organisms, it is growing worldwide, and has become an important contributor to the world's food supply. No internationally agreed criteria have yet been developed specifically for the environmental regulation of aquaculture operations, but many national and regional regulations and laws, largely based on scientifically accepted environmental criteria, have been adopted. Article 9 of the Code of Conduct for Responsible Fisheries of the Food and Agriculture Organization provides a set of voluntary principles and standards that, if applied, ensure that potential social and environmental problems associated with aquaculture development are duly addressed and that aquaculture develops in a sustainable manner. This target therefore acknowledges the contribution of mariculture to food security while seeking to ensure that mariculture operations are undertaken in a sustainable manner. The Conference of the Parties may wish to consider requesting SBSTTA to undertake further work to determine a scientifically sound quantitative element for this target.

**Target 6.3:** No species of wild flora and fauna endangered by international trade

*Application to marine and coastal ecosystems: This target and its technical rationale can be directly applied to marine and coastal ecosystems*

## Goal 7. Reduce pressures from climate change, pollution and soil erosion

**Target 7.1:** Pressures of climate change, pollution and soil erosion and their impacts on biodiversity and ecosystems reduced

*Application to marine and coastal ecosystems: **Substantial improvement in marine ecosystem health and coastal water quality achieved by protecting the marine environment from land-based activities.***

### *Technical rationale*

Land-based activities are a major source of threats to the health, productivity and biodiversity of the marine environment. The term “health” in this context should be interpreted as the ability of an ecosystem or population to regenerate from damage and stress, and could be considered to be equivalent to the term “persistence”. Threats from land-based activities include pollution (municipal, industrial and agricultural wastes and run-off, as well as atmospheric deposition) and physical alteration and destruction of habitats. The application of this target is consistent with paragraph 33 of the Plan of Implementation, and progress towards it can be achieved through effective application of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, regional instruments, programmes and processes, and other appropriate means. More specifically, the World Summit on Sustainable Development in its plan of implementation lists a number of related actions, which include proper coastal land use, watershed planning, and integration of integrated marine and coastal area management into key sectors. Provisions under existing regional programmes and/or conventions (such as, *inter alia*, OSPAR, International North Sea Conferences, Trilateral Protection of the Wadden Sea, HELCOM, Barcelona Convention, Istanbul Convention, Cartagena Convention) or legislation (such as, *inter alia*, within the European Community) as well as world-wide conventions (such as the London Convention) provide powerful instruments to reach this target.

Recent monitoring data <sup>56/</sup> show that coral reefs that are protected from other external stress factors are better able to recover from climate-change induced coral bleaching events, linking the implementation of this target to those under goal 1. This target, which is adapted from paragraphs 33 and 32 (c) of the Plan of Implementation of the World Summit, seeks to reduce and eliminate to the extent possible land-based impacts on the marine environment, therefore also increasing the ability of marine habitats to recover from climate-change-induced impacts, such as coral bleaching

The Conference of the Parties may wish to consider requesting SBSTTA to undertake further work to determine a scientifically sound quantitative element for this target.

### **Target 7.2**

*Application to marine and coastal ecosystems: **Major impacts on coastal ecosystems or vulnerable species of unusual climate events managed so that recovery rates are maximized and impacts on dependent communities minimized.***

### *Technical rationale*

Ecosystems that are healthy have a significant capacity to both resist and recover from periodic disturbances, such as coral-bleaching events or population collapses due to shifts in currents and changes in sea temperature. Ecosystems in a compromised state have limited capacity to do so. In the case of coral reefs, the destruction of associated habitats, such as mangroves and seagrass beds, which serve as nursery areas for many reef species, contributes to the limited capacity of coral-reef ecosystems to recover

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<sup>56/</sup> Wilkinson, C. (Ed) (2002) Status of Coral Reefs of the World: 2002; Linden, O., Souter, D., Wilhelmsson, D and D. Obura (Eds) (2002) Coral Reef Degradation in the Indian Ocean – Status Report 2002.

from natural or human-induced impacts. As noted in decision V/3 of the Conference of the Parties, 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. A similar issue applies in areas such as the Pacific coast of South America, where El Niño/La Niña cycles have major effects on the fisheries on which many poor communities and many seabirds and marine mammals depend. Other impacts on affected species such as Humboldt penguins can remove their ability to recover from these periodic climate events, particularly if human-induced climate change alters those cycles.

This target seeks to maintain ecosystem resistance and resilience to climate change through controlling and minimizing other major human-induced impacts on coastal ecosystems and species resulting from a variety of causes including overexploitation, coastal development, destructive fishing practices, land-based pollution, coral mining, marine-based pollution, and recreational misuse. It also aims to minimize the impact of climatic events, such as coral bleaching, on coastal communities dependent on marine and coastal resources for their livelihoods. Relevant activities may include identification and institution of additional and alternative measures for securing the livelihoods of people who directly depend on the services provided by the affected ecosystems. The application of sound management practices, including marine and coastal protected areas and integrated marine and coastal area management, are integral for achieving this target. Representative networks of marine and coastal protected areas should be designed to offer resilience in the face of climate-induced threats, including through maintaining connectivity between more highly protected areas and providing for replication of habitat and ecosystem types. Activities to reach this target should be implemented together with those related to those under goals 1, 2, 3, 4, 6, and 8. It may also be appropriate to institute specific recovery programmes to assist some affected species, for example, by significantly reducing predation or by-catch of penguin populations during the recovery period.

The Conference of the Parties may wish to consider requesting SBSTTA to undertake further work to determine a scientifically sound quantitative element for this target.

### **Goal 8. Maintain capacity of ecosystems to deliver good and services and support livelihoods**

**Target 8.1:** Capacity of ecosystems to deliver goods and services maintained.

*Application to marine and coastal ecosystems:* **This target can be directly applied to marine and coastal ecosystems**

Marine and coastal ecosystems deliver a range of goods and services. These include: (i) provision of protein supply through fish to 6.2 billion people globally; (ii) functionality of healthy marine ecosystems that cycle nutrients, including from land run-off into food chains that ultimately supply fish for consumption; (iii) generation of significant tourism income and support to international commerce; and (iv) acting as the major component of global climate regulation. The recent World Parks Congress concluded that given the level of threat worldwide to marine ecosystems, there is an urgent need for action to protect and restore ocean health and productivity. This is reinforced by the growing evidence of fisheries decline and collapse, and the increasing pressures on coastal resources as a result of over 50% of the world's population living within 100 miles of the coast. Furthermore, the growing reach of technology means that the last natural refuges are becoming accessible.

Management of marine and coastal resources is always undertaken in the context of ecological uncertainty, and because of this, management action that is precautionary in nature, based on the best

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available science, and is applied on a broad ecosystem scale can best maintain ecosystem capacity to deliver goods and services. This target can be seen as an application of the target set forward in paragraph 30 (d) of the Plan of Implementation of the World Summit on Sustainable Development also, which called for the implementation of the ecosystem approach by the year 2010. The ecosystem approach is the primary framework for the implementation of the Convention, and its importance in ensuring the long-term productivity and sustainability of marine and coastal living resources and environments has been highlighted, for example, by the Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem, the World Summit on Sustainable Development and the recent fourth meeting of the United Nations open-ended informal consultative process on oceans and the law of the sea.

The Conference of the Parties may wish to consider requesting SBSTTA to undertake further work to determine a scientifically sound percentage figure for this target

**Target 8.2:** The decline of biological resources, and associated indigenous and local knowledge, innovations and practices that support sustainable livelihoods, local food security and health care, halted.

*Application to marine and coastal ecosystems: **Decline in biological resources, which coastal and indigenous communities and others rely on for their livelihoods, and for food security and health halted, and protection of relevant traditional and local knowledge and its incorporation into policy formulation and management enhanced, where that incorporation will benefit the achievement of this objective.***

#### **Technical rationale**

Indigenous, traditional and local communities have a wealth of knowledge about biodiversity and its sustainable management, and in many countries marine and coastal biodiversity underpins livelihoods and food security. Application of local and traditional knowledge in the management of biological resources may also promote the maintenance of local and traditional knowledge systems. This target is consistent with target 9 of the Millennium Development Goals (to integrate principles of sustainable development into country policies and programmes and to reverse the loss of environmental resources). Measures to address the decline in associated indigenous and local knowledge should be implemented consistent with the Convention's programme of work on Article 8(j) and related provisions.

#### **Goal 9. Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources**

**Target 9.1:** All transfers of genetic resources in line with the Convention on Biological Diversity, International Treaty on Plant Genetic Resources for Food and Agriculture and other applicable agreements.

*Application to marine and coastal ecosystems: **This target can be directly applied to marine and coastal ecosystems***

#### **Technical rationale**

In order to assist Parties, Governments and relevant stakeholders with the implementation of the access and benefit-sharing provisions of the Convention, the Conference of the Parties adopted at its sixth meeting the Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits arising from their Utilization. These voluntary guidelines are meant to assist Parties and relevant stakeholders when establishing legislative, administrative and policy measures on access to genetic resources and benefit-sharing and/or when negotiating contractual arrangements for access and benefit

sharing. Against this background, this target aims to ensure that national systems established to implement the access and benefit-sharing provisions of the Convention, also cover access to marine and coastal genetic resources and the fair and equitable sharing of benefits arising out of the utilization of these resources, in accordance with the Convention.

It should be noted however that genetic resources in the deep seabed in areas outside of national jurisdiction are not covered by the access and benefit-sharing provisions of the Convention, and that this issue may deserve further consideration in the context of SBSTTA recommendation VIII/3 D.

*Annex IV***GENERAL APPROACH FOR THE INTEGRATION OF TARGETS INTO THE PROGRAMMES OF WORK OF THE CONVENTION**

The following steps would be carried out: for each thematic programme of work, and for other programmes of work, as appropriate:

- (a) *Vision, mission and outcome-oriented targets:*
- (i) Identification of the overall vision (or long-term goal) to be ultimately achieved for the biome/issue covered by the programme of work, consistent with the Purpose of the Strategic Plan;
  - (ii) Identification of a 2010 outcome-oriented global target specific to the scope of the programme of work and consistent with the Mission of the Strategic Plan;
  - (iii) Identification of a limited number of outcome-oriented targets related to the status and trends of biodiversity and its components, threats to biodiversity, and goods and services provided by biodiversity and ecosystems within the scope of the programme of work. As appropriate, The targets might be assigned to a number of goals according to the proposed headings in annex I, and draw upon the approach used to develop the Global Strategy for Plant Conservation. However, this process does not imply that all targets in annex I and the GSPC should be replicated for each programme of work. Rather, targets may highlight broad strategic issues and/or particularly urgent priority issues, and each target should be associated with one or more indicators, which can draw upon existing data;
- (b) *Relationship between the programme of work, its targets, and other processes*
- (i) Examination of how the programme of work contributes to particular Millennium Development Goals and associated targets;
  - (ii) A brief analysis of how the programme of work, and its targets, relates to the elements of the Plan of Implementation of the World Summit on Sustainable Development, categorizing such elements as follows:
    - Elements to be integrated into the programme of work (these elements should be fully within the scope of the programme of work), specifying which of these represent outcome-oriented biodiversity related targets;
    - Elements which complement the goals of the programme of work; and
    - Elements representing goals to which the programme of work contributes;
  - (iii) A brief analysis of how the programme of work, and its targets, relates to the objectives, plans and targets of other multilateral environmental agreements and other relevant agreements, using the same categorization as in (b) (ii);
- (c) *Intermediate output or process oriented targets, milestones and deadlines for the activities of the programme of work:* Identification of a larger number of process- or output-oriented

targets, milestones and deadlines, relating to the specific objectives, programme elements, and/or activities of the programme of work, according to the structure and needs of each programme of work.

*Annex V*

**PROVISIONAL GLOBAL INDICATORS FOR ASSESSING PROGRESS TOWARDS THE 2010  
BIODIVERSITY TARGET**

***Global Indicator 1. Trends in extent of selected biomes, ecosystems and habitats.***

This provides a direct indicator of ecosystem quantity. Data is available systematically for selected biomes, ecosystems and habitats such as natural and semi-natural forests, selected wetlands and coral reefs. Aggregated indices of “natural ecosystems” are available for some countries only and face definitional problems.

***Global Indicator 2. Trends in abundance and distribution of selected species.***

This provides a direct indicator of species status for well-described taxonomic groups. Biome-specific data also provides an indicator of ecosystem quality, complementing Global Indicator 1. Species assemblage population indices are available for marine, freshwater and forest systems (aggregated as the “Living Planet Index”). Bird populations indices also cover agricultural ecosystems. Data is more complete for developed country regions.

***Global Indicator 3. Change in status of threatened species.***

Red Lists indicate threatened species according to globally-agreed criteria. For well assessed groups of species changes in status of a species between categories can be assessed and a “red list indicator” based on such data is under development. For other groups of species, changes in threat category reflects improvement of knowledge rather than change in status of the species itself. Under the Global Strategy for Plant Conservation all higher plants will be assessed on a preliminary basis by 2010. Conservation measures carried out for listed species (for example, inclusion in an effective protected area) provides a complementary indicator.

***Global Indicator 4. Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance.***

Comprehensive data on the genetic diversity of domesticated animals and many cultivated plants, and their gene pools, as well as a few tree and fish species is available, and can be used to provide a direct indicator of genetic diversity for these species.

***Global Indicator 5. Coverage of protected areas.***

This is a response indicator. Comprehensive data on officially recognized protected areas is regularly compiled. By using geographical information systems this data can be allocated approximately to different biomes or ecological regions, allowing analysis of coverage and gap analysis. The data would also allow analysis of the protection of specific sites important for particular species and habitats. Better data and further methodological development is needed to include criteria of protected area effectiveness.

***Global Indicator 6. Criteria and indicators for sustainable management of ecosystems.***

This is an indicator of sustainable harvesting of wild species, and of sustainable management of production systems. Various systems of criteria and indicators are available, respectively, for agriculture, aquaculture, fisheries and forest management. These are complemented in some cases by more stringent certification schemes. Data availability and reliability is variable.

***Global Indicator 7. Biodiversity used in food and medicine.***

This is a direct indicator of biodiversity in use. It relates to major goods and services provided by biodiversity and is directly linked to human nutrition and health. In some areas, it may also be used as a proxy for the use of indigenous and traditional knowledge. Coarse global and national indicators can be derived from food balance data which is available periodically for most countries. More detailed time-series data is available for selected cases, including breakdown by varieties as well as species used.

***Global Indicator 8. Water quality in aquatic ecosystems.***

This is an indicator of the quality of inland water and marine and coastal ecosystems. It also indicates pressure on biodiversity (in terms of pollution) and closely is related to a major ecosystem service: provision of clean water. Water quality data is routinely available for major waterways in a large number of countries.

***Global Indicator 9. Trophic integrity of ecosystems***

This is an indicator of ecosystem integrity. Several studies have confirmed the relevance and reliability of this indicator for marine ecosystems, and in this case it also is an indicator of the sustainability of fisheries. It can be calculated, globally and regionally, from fisheries data

***Global Indicator 10. Nitrogen deposition.***

This is a pressure indicator. Fixed nitrogen in global ecosystems has more than doubled due to anthropogenic additions with consequences for biodiversity and the integrity of terrestrial, aquatic and marine ecosystems. Nitrogen additions can be calculated on a global basis, and can be estimated also for some countries and watersheds. Some data is also available for nitrogen loads in aquatic ecosystems.

***Global Indicator 11. Numbers and cost of alien invasions.***

This is an indicator of one of the major pressures on biodiversity. Data on the number and severity of alien invasions is available for some countries, but very sporadic for others. The economic cost of the impacts of invasive alien species, or the cost of control measures can be calculated in some cases.

In addition to the above indicators, use might be made, as appropriate, of additional data and indicators that are assembled routinely through other conventions and by international organizations. These might include pressure indicators such as greenhouse gas emissions, and indicators of goods and services such as food production.

**C. The programme of work of the Convention and the Millennium Development Goals**

*The following draft decision is taken from the recommendations in paragraph 63 of the note by the Executive Secretary on the programme of work of the Convention and the Millennium Development Goals (UNEP/CBD/COP/7/20/Add.1, which incorporates, paragraph 2, paragraph 2 of SBSTTA recommendation IX/13.*

*The Conference of the Parties,*

*Recognizing* that world leaders at the Millennium Summit have established the Millennium Development Goals (MDGs) as the focus of global efforts to combat poverty, hunger, disease, illiteracy, environmental degradation and discrimination against women, and that the Millennium Development Goals agenda provides the framework for the entire United Nations system to work coherently toward these common ends,

*Noting* that achievement of the Millennium Development Goals, in particular goal 1 (Combating poverty and hunger) and goal 7 (Ensuring environmental sustainability) are dependent on the effective conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources,

*Recalling* that the Convention on Biological Diversity is the key international instrument for the integration of biodiversity-related issues into the Millennium Development Agenda,

*Concerned* that if development activities are not consistent with the objectives of the Convention on Biological Diversity, including its programmes of work, they may at once further degrade biological diversity and undermine sustainability and hence limit achievement of the Millennium Development Goals,

1. *Urges* Parties, Governments, international financial institutions, donors, and relevant intergovernmental organizations, as a contribution towards the Millennium Development Goals, to implement development activities in ways that are consistent with, and do not compromise, the achievement of the objectives of the Convention on Biological Diversity and the 2010 target, including by improving environmental policies in relevant development agencies and sectors such as through integrating concerns relating to biodiversity and the Millennium Development Goals more directly into environmental impact assessments, strategic environmental assessments and other such tools;

2. *Requests* the Executive Secretary:

(a) To work closely with the United Nations Development Programme, the United Nations Environment Programme, the United Nations Educational, Scientific and Cultural Organization, the Millennium Project of the Secretary-General of the United Nations and others to find ways to more effectively communicate the importance of biodiversity in achieving the Millennium Development Goals, and to identify and communicate the relationship between biodiversity and human development targets at all levels;

(b) To explore with the Secretary General of the United Nations, the opportunity to establish the 2010 target as an interim milestone in achieving the Millennium Development Goal 7 of ensuring environmental sustainability by 2015; and

(c) To work closely with the United Nations Development Programme, the United Nations Environment Programme, the Millennium Project of the Secretary General of the United Nations and others to find ways to use the 2010 targets and indicators to help achieve target 9 (to “reverse the loss of

environmental resources”) of Millennium Development Goal 7 (to “ensure environmental sustainability”), and other relevant Millennium Development Goals;

3. *Urges* Parties to report on their efforts at the national level to promote the links between the process relating to the Millennium Development Goals and the Convention on Biological Diversity in their next national report;

4. *Requests* the Executive Secretary, to take this into account when revising the format for national reports;

5. *Noting* with appreciation the ongoing initiatives of the Executive Secretary, *requests* the Executive Secretary to publish the full results of the study and to promote further the importance of biodiversity to sustainable development, livelihoods, food security, poverty reduction and eradication in all relevant forums and using a variety of appropriate media including, *inter alia*, making full use of the clearing-house mechanism and formalizing relevant activities under the programme of work for implementation and outreach, including communication education and public awareness.

### **D. Operations of the Convention**

*The following draft decision is taken from paragraphs 11 (a) and (d)-(e) of the note by the Executive Secretary on review and consolidation of the decisions of the Conference of the Parties (UNEP/CBD/COP/7/20/Add.2). As suggested in paragraphs 11 (b) and (c) of the same note, the Conference of the Parties may also wish to:*

**(a) Review and adjust paragraph 1 of decision IV/17 and its annex to existing United Nations policies, procedures and practices for senior-level appointments within the United Nations (D-2, ASG and USG) and recent developments regarding the appointment and promotion of United Nations staff members;**

**(b) Adopt a phased process of consolidation of its decisions with a view to completing the process of consolidating all its decisions by the year 2010.**

#### *The Conference of the Parties*

1. *Decides* to retire the decisions and elements of decisions adopted at its third and fourth meetings listed in the second column of the annex to the present decision;

2. *Requests* the Executive Secretary, under the guidance of the Bureau, to propose draft consolidated decisions in the areas of forest biological diversity; access to genetic resources and benefit-sharing; and guidance to the financial mechanism for the consideration of the Conference of the Parties at its eighth meeting;

3. *Further requests* the Executive Secretary to communicate the draft consolidated decisions referred to in the preceding paragraph to Parties and relevant international organizations for their review and comments and to revise the proposals in light of such comments before submission to the Conference of the Parties at its eighth meeting.

#### *Annex*

### **REVIEW OF DECISIONS ADOPTED BY THE CONFERENCE OF THE PARTIES AT ITS THIRD AND FOURTH MEETINGS**

COP DECISIONS	DECISIONS OR ELEMENTS OF DECISIONS WHICH CAN BE RETIRED <sup>57/</sup>	DECISIONS WHICH SHOULD BE RETAINED AND CONSOLIDATED*	
		Fully implemented but of continuing relevance or effect	Under implementation
Decision	Fully implemented, of no continuing relevance or effect, or of only historical value	Fully implemented but of continuing relevance or effect	Under implementation
<b>COP III</b>			
III/1			<b>×</b>
III/2	<b>×</b>		
III/3	Paras. 1, 2 and 4 and 5	Paras. 3	

<sup>57/</sup> “**×**” signifies the whole decision.

COP DECISIONS	DECISIONS OR ELEMENTS OF DECISIONS WHICH CAN BE RETIRED <sup>57/</sup>	DECISIONS WHICH SHOULD BE RETAINED AND CONSOLIDATED*	
Decision	Fully implemented, of no continuing relevance or effect, or of only historical value	Fully implemented but of continuing relevance or effect	Under implementation
III/4	Paras. 1, 3, 5, 8, 10 and 14.		The Conference of the Parties may wish to consolidate paragraph 2 with other decisions relating to guidance to the financial mechanism. Paras. 4, 6, 7, 9, 11 to 13, 15 to 16 are ongoing.
III/5	Para. 7		Paragraphs 1 to 6 of the decision should be consolidated with other decisions relating to guidance to the financial mechanism.
III/6	Paras. 2(b) and 6.		Paras 2(a), 3 and 5 could be consolidated with other relevant decisions on financial resources. Paras. 1 and 4 are ongoing.
III/7	✘		
III/8	Para. 2.		The decision and the MOU provide the operational framework regarding the implementation of Article 21 of the Convention concerning the financial mechanism. Paragraph 1 should be consolidated with other decisions on financial mechanism.
III/9	Paras. 8 and 11	Para. 3	Paras. 1, 2, 4 to 7 and 9 are ongoing
III/10			The Conference of the Parties may wish to consolidate this decision with other decisions relating to identification, monitoring and assessment
III/11	Paras. 1 to 12, 16, 23 and 24.		Paras. 13 to 15, 17, 18 to 22 are ongoing
III/12	✘		
III/13	✘		
III/14	Paras. 3, 6, 8 to 12		Paras. 1, 2, 4, 5 and 7 are ongoing
III/15	Paras. 1, 2 and 7		Paras. 3 to 6, 8 and 9 are on-going
III/16	✘		
III/17	Paras. 3 to 6		Paras. 1, 2, 7 and 8 should be included in a consolidated decision on IPRs.
III/18	Paras. 1, 5, 7 and 8		Paras. 2, 3, 4, 6, 9 and 10 could be consolidated with other decisions on incentive measures.
III/19	✘		
III/20	✘		
III/21	Paras. 1, 4 to 7, 9 and 11		Paras. 3, 8, 10 and 12 are ongoing. Paragraph 2 could be consolidated with subsequent decisions dealing with cooperation.
III/22	✘		
III/23			The Conference of the Parties may wish to consolidate decision III/23 with decision III/1.
III/24	Paras. 1 to 4	Paras. 5(a) and 5(b) could be consolidated with other relevant decisions.	Paras 5 (c), 5(d), 5(e) and 5(f), 6 to 11 are ongoing
III/25	✘		

COP DECISIONS	DECISIONS OR ELEMENTS OF DECISIONS WHICH CAN BE RETIRED <u>57/</u>	DECISIONS WHICH SHOULD BE RETAINED AND CONSOLIDATED*	
		Fully implemented but of continuing relevance or effect	Under implementation
Decision	Fully implemented, of no continuing relevance or effect, or of only historical value	Fully implemented but of continuing relevance or effect	Under implementation
III/26	✘		
III/27	✘		
<b>COP IV</b>			
IV/1 A	Paras. 1, 2, 3 and 5		Para. 4 and 6 could be consolidated with other relevant decisions.
IV/1 B	Paras. 1 and 2		
IV/1 C	Paras. 2, 5 and 6		Paras. 1, 3 and 4 could be consolidated.
IV/1 D	Paras. 1 and 3		Paras. 2 and 4 could be consolidated with other relevant decisions. Paras. 5 to 9 are ongoing.
IV/2	Paras. 7, 9(d), 10(a), 10(c), 10(f), 10(j) and 10(k)		Paras. 1 to 6, 8, 9(a), 9(b), 9(c), 10(b), 10(d), 10(e), 10(g), 10(h), and 10(i) are on-going.
IV/3	✘		
IV/4	Para. 1, 4 to 5, 8, 10, and annex 1.	Para. 11	Para. 3 and 6 are ongoing. Paras. 2, 7 and 9 could be consolidated with other decisions.
IV/5	Para. I(1), I(2), II(1) to II(3) and annex		Paras I(3), I(4), II(4) are ongoing. Para. III remains valid and should be consolidated with other relevant decisions.
IV/6	Paras. 1, 2, 5, 7 to 13		Paras, 3, 4 and 6.
IV/7	✘		
IV/8	Paras. 1, 2, 3 and 6(d)		Para 4 could be consolidated. Paras. 5, 6(a), 6(b) and 6(c) are ongoing.
IV/9	Paras.5, 6, 8 to 11, 14 and 16	Para. 2	Paras. 1, 3, 4, 7, 12, 13, 15 and 17
IV/10, Part A	Paras. 1(b), 1(d), 1(e), 1(g), 5(a), (5(b), 5(c)		Paras. 1(a), 1(c), 1(f), 1(h), 3, 4 could be consolidated. Para. 2 is ongoing.
IV/10, Part B	Para. 6		Paras. 1 to 5 and 7 to 10
IV/10, Part C	Paras. 2 to 4, 8 to 11		Paras. 1, 5 to 7
IV/11	Para. 3		Paras 1, 2, 4 and annex
IV/12	✘		
IV/13			The entire decision has been under implementation. The Conference of the Parties may wish to consolidate this decision with other relevant decisions.
IV/14	Paras 1 to 3		Paras 4 and 5 are ongoing
IV/15	Paras 1 to 3, 7 and 11 to 17		Paras 4 to 6 are ongoing. Paras 8 to 10 remain relevant to issues pertaining to the WTO and could be consolidated with other WTO relevant decisions.

COP DECISIONS	DECISIONS OR ELEMENTS OF DECISIONS WHICH CAN BE RETIRED <u>57/</u>	DECISIONS WHICH SHOULD BE RETAINED AND CONSOLIDATED*	
		Fully implemented but of continuing relevance or effect	Under implementation
Decision	Fully implemented, of no continuing relevance or effect, or of only historical value	Fully implemented but of continuing relevance or effect	Under implementation
IV/16	Paras 1 to 4, 10, 16, 17, 19 to 21		Paras 5, 6, 7, 8, 9, 12 to 15, and 18 Para. 11 could be consolidated with other decisions on SBSTTA's operations
IV/17	Paras 2 to 7, 10 to 15		Paras 1, 8 and 9 are ongoing. The Conference of the Parties may need to review and adjust para.1 and the annex to decision IV/17 in view of existing United Nations policies, procedures and practices for senior level appointments within the United Nations (D-2, ASG and USG) and recent developments regarding appointments and promotions of United Nations Staff
IV/18	✘		
IV/19	✘		

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