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**RECOMMENDATIONS ADOPTED BY THE SUBSIDIARY BODY ON SCIENTIFIC,  
TECHNICAL AND TECHNOLOGICAL ADVICE AT ITS FIFTEENTH MEETING**

*Montreal, 7-11 November 2011*

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***XV/1. Indicator framework for the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets***

*The Subsidiary Body on Scientific, Technical and Technological Advice*

1. *Takes note* of the updated provisional technical rationales for the Strategic Goals of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets contained in documents UNEP/CBD/COP/10/27/Add.1 and UNEP/CBD/SBSTTA/15/3;
2. *Welcomes* the report of the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 (UNEP/CBD/SBSTTA/15/INF/6);
3. *Also welcomes* the contribution made by the Group on Earth Observation Biodiversity Observation Network, in collaboration with the International Union for the Conservation of Nature (IUCN) and the UNEP World Conservation Monitoring Centre on the Adequacy of Biodiversity Observation Systems to Support the CBD 2020 Targets (UNEP/CBD/SBSTTA/15/INF/8);
4. *Further welcomes* the review of National Indicators, Monitoring and Reporting for Global Biodiversity Targets commissioned by the Department for Environment, Food and Rural Affairs of the United Kingdom and carried out by the UNEP World Conservation Monitoring Centre (UNEP/CBD/SBSTTA/15/INF/9);
5. *Takes note* of the indicative list of indicators identified by the Ad Hoc Technical Expert Group organized according to the Goals of the Strategic Plan and the Aichi Biodiversity Targets as contained in annex I to the present recommendation which includes the following:
  - (a) A set of headline indicators to present policy relevant information on biodiversity to cover the ambitions set out in the Aichi Biodiversity Targets; and
  - (b) Three categories of operational indicators as follows: Category A indicators are ready for use at the global level. Category B indicators could be used at the global level but require further development to be ready for use. Category C indicators are for consideration for use at the national or other sub-global level. The set of (A) and (B) indicators are those which should be used to assess progress at the global level while the (C) indicators are illustrative of some of the additional indicators available to Parties to use at the national level according to their national priorities and circumstances.
  - (c) Initial baselines should be established for operational indicators to provide a reference point against which performance (trends) can be assessed.
  - (d) The Aichi Biodiversity Targets and proposed indicator framework provide a flexible framework for Parties which can be adapted, taking into account national priorities and circumstances. Parties are likely to use different metrics and methodologies for their indicators depending on national targets and available data and methods.
  - (e) Countries with limited capacities and resources for developing and applying indicators based on national data will require financial resources and technical support to develop and apply such indicators as well as to design and carry out priority monitoring activities required at the national level. Members of the Biodiversity Indicators Partnership, among others, could have a role in providing technical assistance as appropriate.
6. *Also takes note* of the other conclusions of the Ad Hoc Technical Expert Group concerning the indicator framework for the Strategic Plan for Biodiversity 2011-2020 as contained in annex II to the present recommendation, which supports communication of biodiversity information around the following overarching policy questions: How is the status of biodiversity changing? (*State of biodiversity*); Why are we losing biodiversity? (*Pressures on biodiversity and their underlying causes*); What are the implications? (*Benefits from biodiversity*); and What do we do about it? (*Responses to address biodiversity loss at all levels*);

7. *Welcomes* the development of the online database of indicators for the Strategic Plan for Biodiversity containing the outcomes of the work of the Ad Hoc Technical Expert Group and requests the Executive Secretary, in collaboration with the Biodiversity Indicators Partnership and other relevant partners to further develop, maintain, and periodically update it with a view to maximizing its usefulness to Parties and other stakeholders;

8. *Further takes note* of recommendation 7/7 of the seventh meeting of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions on the development of indicators relevant for traditional knowledge and customary sustainable use (UNEP/CBD/COP/11/7, annex I);

9. *Requests* the Executive Secretary, subject to the availability of resources, to initiate work on the tasks listed in paragraphs 10 (g) and 10 (h) below;

10. *Recommends* that the Conference of the Parties at its eleventh meeting adopts a decision along the following lines:

(a) *Expresses its gratitude* to the European Union for its financial support to the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 and to the Government of Canada, the European Environment Agency, Norway, Switzerland and the United Kingdom for their support to the International Expert Workshop held from 20 to 22 June 2011 in High Wycombe, United Kingdom, in support of the AHTEG on Indicators for the Strategic Plan for Biodiversity 2011-2020;

(b) *Takes note* of the indicative list of indicators available to assess progress towards the goals of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets as contained in Annex I to this recommendation, the indicator framework developed by the Ad Hoc Technical Expert Group<sup>1</sup> as well as the work of the Ad hoc Open-ended Working Group on Article 8(j) and Related Provisions on the development of indicators relevant for traditional knowledge and customary sustainable use and *recognizes* that these provide a starting point to assess progress in the achievement of the Strategic Plan for Biodiversity 2011-2020 at various scales;

(c) *Recognizes* that the Aichi Biodiversity Targets and proposed indicator framework provide a flexible basis for Parties which can be adapted, taking into account different national circumstances and capabilities and *urges* Parties to prioritize the application at the national level of those indicators that are ready for use at the global level where feasible and appropriate, and also *urges* Parties to consider using the flexible framework and the indicative list of indicators, *inter alia* in their updated national biodiversity strategies and action plans and in reporting, including through the fifth national report as far as possible, and subsequent national reports;

(d) *Encourages* Parties and other Governments to contribute to, update, verify and maintain relevant national data in regional and global data sets as a contribution to optimize and coordinate the production of indicators for monitoring and reporting at various scales and to promote the public availability of the data;

(e) *Decides* that the indicator framework for the Strategic Plan should be kept under review with a view to enabling the future incorporation of relevant indicators developed by Parties and other Conventions and processes that are relevant for the Strategic Plan for Biodiversity 2011-2020;

(f) *Recognizes* the need to strengthen technical and institutional capacities and to mobilize adequate financial resources for the development and application of indicators, especially for developing country Parties, in particular the least developed countries, small island developing States as well as countries with economies in transition;

(g) *Requests* the Executive Secretary, in collaboration with the Biodiversity Indicators Partnership, regional centres of excellence and other relevant organizations, as appropriate and subject to the availability of resources, to:

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<sup>1</sup> See UNEP/CBD/SBSTTA/15/INF/6.

- (i) Compile technical guidance materials for capacity-building and provide support to Parties for the further development of indicators and monitoring and reporting systems, including the information contained in the annexes to document UNEP/CBD/SBSTTA/15/INF/6, and to make it accessible in the form of a toolkit, building on the material already available on the Biodiversity Indicators Partnership web pages;
- (ii) Assist Parties, especially those with limited resources and capacities and/or not yet using systematically produced indicators in their official reports and at their request, to initially establish and apply a few simple, cost-effective and easily applicable indicators for priority issues; and
- (iii) Include capacity-building on the indicators framework in regional workshops, as appropriate, to support implementation of the indicators framework by allowing Parties to update on progress, the sharing of information and lessons learned as well as areas of synergy and collaboration;
- (iv) Support review of the use of the indicator framework in order to identify gaps and priorities in national and regional institutions for future capacity-building, technical support and financial support by donors and partner organizations;

(h) *Requests* the Executive Secretary, in collaboration with the Biodiversity Indicators Partnership, the Group on Earth Observation Biodiversity Observation Network (GEO-BON), the Food and Agriculture Organization of the United Nations, the International Union for the Conservation of Nature (IUCN) and other partners including the Indicators Working Group of the International Indigenous Forum for Biodiversity, as appropriate and subject to the availability of resources, to:

- (i) Develop practical information on the indicators, including the rationale behind the indicators, their development status, the scale at which they are applied and information on data sources and methodologies, to assist in the application of each of the indicators;
- (ii) Further develop global indicators identified in Annex I below with a view to ensuring that each Aichi Biodiversity Target can be monitored by at least one global indicator by 2014, taking into account indicators that are already in use by, or relevant to, other conventions, regional agreements and processes;
- (iii) Propose a limited number of simple, easily applicable and cost-effective indicators that can potentially be implemented by all Parties;
- (iv) Explore options for the further harmonization of global indicators and their use between the Convention on Biological Diversity and other conventions, regional agreements and processes, and promote further collaboration including through the Liaison Group of Biodiversity-related Conventions and the Joint Liaison Group of the Rio Conventions;
- (v) Promote the further collaboration on biodiversity monitoring and indicators with the forestry, agriculture, fisheries and other sectors on the global, regional and national levels;
- (vi) Further develop and maintain the online database on indicators for the Strategic Plan for Biodiversity 2011-2020; and
- (vii) Develop an explanatory practical toolkit on each of the Aichi Biodiversity Targets, including possible steps for measuring progress towards these targets;

and to report to a meeting of the Subsidiary Body on Scientific, Technical and Technological Advice prior to the twelfth meeting of the Conference of the Parties;

(i) *Invites* GEO-BON to continue its work on the identification of essential biodiversity variables and the development of associated data sets as presented in document CBD/SBSTTA/15/INF/8 and report to a meeting of SBSTTA prior to the twelfth meeting of the Conference of the Parties;

(j) *Invites* relevant organizations, including funding bodies, to encourage and support further development of indicators and reporting progress in the implementation of the Strategic Plan for Biodiversity 2011-2020;

11. *Requests* the Executive Secretary to provide regular progress reports on the development and use of indicators to a meeting of SBSTTA prior to each meeting of the Conference of the Parties until 2020. This should include the mid-term evaluation of the Strategic Plan, as well as the experience in using the indicators in the fifth national reports and in the fourth edition of the Global Biodiversity Outlook. This will provide opportunities to review progress in developing and using indicators and to assess the adequacy and effectiveness of the indicator framework for monitoring progress, at national and global levels, towards the achievement of the Strategic Plan for Biodiversity 2011-2020.

## Annex I

**INDICATIVE LIST OF INDICATORS PROPOSED BY THE AD HOC TECHNICAL EXPERT GROUP ON INDICATORS FOR THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020**

The Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 identified three categories of operational indicators. Indicators which are ready for use at the global level are denoted by the letter (A). Indicators which could be used at the global level but which require further development to be ready for use are denoted by the letter (B). Additional indicators for consideration for use at the national or other sub-global level are denoted by the letter (C) and formatted in italics. The set of (A) and (B) indicators are those which should be used to assess progress at the global level while the (C) indicators are illustrative of some of the additional indicators available to Parties to use at the national level according to their national priorities and circumstances.

Aichi Target	Headline indicators (in bold) and most relevant operational indicators
<b>Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society</b>	
<p><b>Target 1</b> - By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.</p>	<p><b>Trends in awareness, attitudes and public engagement in support of biological diversity and ecosystem services</b></p> <ul style="list-style-type: none"> <li>• <i>Trends in awareness and attitudes to biodiversity (C)</i></li> <li>• <i>Trends in public engagement with biodiversity (C)</i></li> <li>• <i>Trends in communication programmes and actions promoting social corporate responsibility (C)</i></li> </ul>
<p><b>Target 2</b> - By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.</p>	<p><b>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives</b></p> <ul style="list-style-type: none"> <li>• Trends in number of countries incorporating natural resource, biodiversity, and ecosystem service values into national accounting systems (B)</li> <li>• <i>Trends in number of countries that have assessed values of biodiversity, in accordance with the Convention (C)</i></li> <li>• <i>Trends in guidelines and applications of economic appraisal tools (C)</i></li> <li>• <i>Trends in integration of biodiversity and ecosystem service values into sectoral and development policies (C)</i></li> <li>• <i>Trends in policies considering biodiversity and ecosystem service in environmental impact assessment and strategic environmental assessment (C)</i></li> </ul>
<p><b>Target 3</b> - By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.</p>	<p><b>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives</b></p> <ul style="list-style-type: none"> <li>• Trends in the number and value of incentives, including subsidies, harmful to biodiversity, removed, reformed or phased out (B)</li> <li>• <i>Trends in identification, assessment and establishment and strengthening of incentives that reward positive contribution to biodiversity and ecosystem services penalize adverse impacts (C)</i></li> </ul>
<p><b>Target 4</b> - By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.</p>	<p><b>Trends in pressures from unsustainable agriculture, forestry, fisheries and aquaculture</b></p> <ul style="list-style-type: none"> <li>• Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)</li> <li>• Trends in population and extinction risk of utilized species, including species in trade (A) (also used by CITES)</li> <li>• <i>Ecological limits assessed in terms of sustainable production and consumption (C)</i></li> </ul>

	<p><b>Trends in pressures from habitat conversion, pollution, invasive species, climate change, overexploitation and underlying drivers</b></p> <ul style="list-style-type: none"> <li>• <i>Trends in biodiversity of cities (C) (decision X/22)</i></li> </ul> <p><b>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives</b></p> <ul style="list-style-type: none"> <li>• Trends in extent to which biodiversity and ecosystem service values are incorporated into organizational accounting and reporting (B)</li> </ul>
<p><b>Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use</b></p>	
<p><b>Target 5</b> - By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.</p>	<p><b>Trends in extent, condition and vulnerability of ecosystems, biomes and habitats</b></p> <ul style="list-style-type: none"> <li>• Extinction risk trends of habitat dependent species in each major habitat type (A)</li> <li>• Trends in extent of selected biomes, ecosystems and habitats (A) (decision VII/30 and VIII/15)</li> <li>• Trends in proportion of degraded/threatened habitats (B)</li> <li>• Trends in fragmentation of natural habitats (B) (decision VII/30 and VIII/15)</li> <li>• <i>Trends in condition and vulnerability of ecosystems (C)</i></li> <li>• <i>Trends in the proportion of natural habitats converted (C)</i></li> </ul> <p><b>Trends in pressures from unsustainable agriculture, forestry, fisheries and aquaculture</b></p> <ul style="list-style-type: none"> <li>• <i>Trends in primary productivity (C)</i></li> <li>• <i>Trends in proportion of land affected by desertification (C) (also used by UNCCD)</i></li> </ul> <p><b>Trends in pressures from habitat conversion, pollution, invasive species, climate change, overexploitation and underlying drivers</b></p> <ul style="list-style-type: none"> <li>• Population trends of habitat dependent species in each major habitat type (A)</li> </ul>
<p><b>Target 6</b> - By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.</p>	<p><b>Trends in pressures from unsustainable agriculture, forestry, fisheries and aquaculture</b></p> <ul style="list-style-type: none"> <li>• Trends in extinction risk of target and bycatch aquatic species (A)</li> <li>• Trends in population of target and bycatch aquatic species (A)</li> <li>• Trends in proportion of utilized stocks outside safe biological limits (A) (MDG indicator 7.4)</li> <li>• <i>Trends in catch per unit effort (C)</i></li> <li>• <i>Trends in fishing effort capacity (C)</i></li> <li>• <i>Trends in area, frequency, and/or intensity of destructive fishing practices (C)</i></li> </ul> <p><b>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives</b></p> <ul style="list-style-type: none"> <li>• Trends in proportion of depleted target and bycatch species with recovery plans (B)</li> </ul>
<p><b>Target 7</b> - By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.</p>	<p><b>Trends in pressures from unsustainable agriculture, forestry, fisheries and aquaculture</b></p> <ul style="list-style-type: none"> <li>• Trends in population of forest and agriculture dependent species in production systems (B)</li> <li>• Trends in production per input (B)</li> <li>• <i>Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15)</i></li> </ul>

	<p><b>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives</b></p> <ul style="list-style-type: none"> <li>• Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)</li> </ul>
<p><b>Target 8</b> - By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.</p>	<p><b>Trends in pressures from habitat conversion, pollution, invasive species, climate change, overexploitation and underlying drivers</b></p> <ul style="list-style-type: none"> <li>• Trends in incidence of hypoxic zones and algal blooms (A)</li> <li>• Trends in water quality in aquatic ecosystems (A) (decision VII/30 and VIII/15)</li> <li>• Impact of pollution on extinction risk trends (B)</li> <li>• Trends in pollution deposition rate (B) (decision VII/30 and VIII/15)</li> <li>• Trends in sediment transfer rates (B)</li> <li>• <i>Trend in emission to the environment of pollutants relevant for biodiversity (C)</i></li> <li>• <i>Trend in levels of contaminants in wildlife (C)</i></li> <li>• <i>Trends in nitrogen footprint of consumption activities (C)</i></li> <li>• <i>Trends in ozone levels in natural ecosystems (C)</i></li> <li>• <i>Trends in proportion of wastewater discharged after treatment (C)</i></li> <li>• <i>Trends in UV-radiation levels (C)</i></li> </ul>
<p><b>Target 9</b> - By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.</p>	<p><b>Trends in pressures from habitat conversion, pollution, invasive species, climate change, overexploitation and underlying drivers</b></p> <ul style="list-style-type: none"> <li>• Trends in the impact of invasive alien species on extinction risk trends (A)</li> <li>• Trends in the economic impacts of selected invasive alien species (B)</li> <li>• Trends in number of invasive alien species (B) (decision VII/30 and VIII/15)</li> <li>• <i>Trends in incidence of wildlife diseases caused by invasive alien species (C)</i></li> </ul> <p><b>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives</b></p> <ul style="list-style-type: none"> <li>• Trends in policy responses, legislation and management plans to control and prevent spread of invasive alien species (B)</li> <li>• <i>Trends in invasive alien species pathways management (C)</i></li> </ul>
<p><b>Target 10</b> - By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.</p>	<p><b>Trends in pressures from habitat conversion, pollution, invasive species, climate change, overexploitation and underlying drivers</b></p> <ul style="list-style-type: none"> <li>• Extinction risk trends of coral and reef fish (A)</li> <li>• Trends in climate change impacts on extinction risk (B)</li> <li>• Trends in coral reef condition (B)</li> <li>• Trends in extent, and rate of shifts of boundaries, of vulnerable ecosystems (B)</li> <li>• <i>Trends in climatic impacts on community composition (C)</i></li> <li>• <i>Trends in climatic impacts on population trends (C)</i></li> </ul>

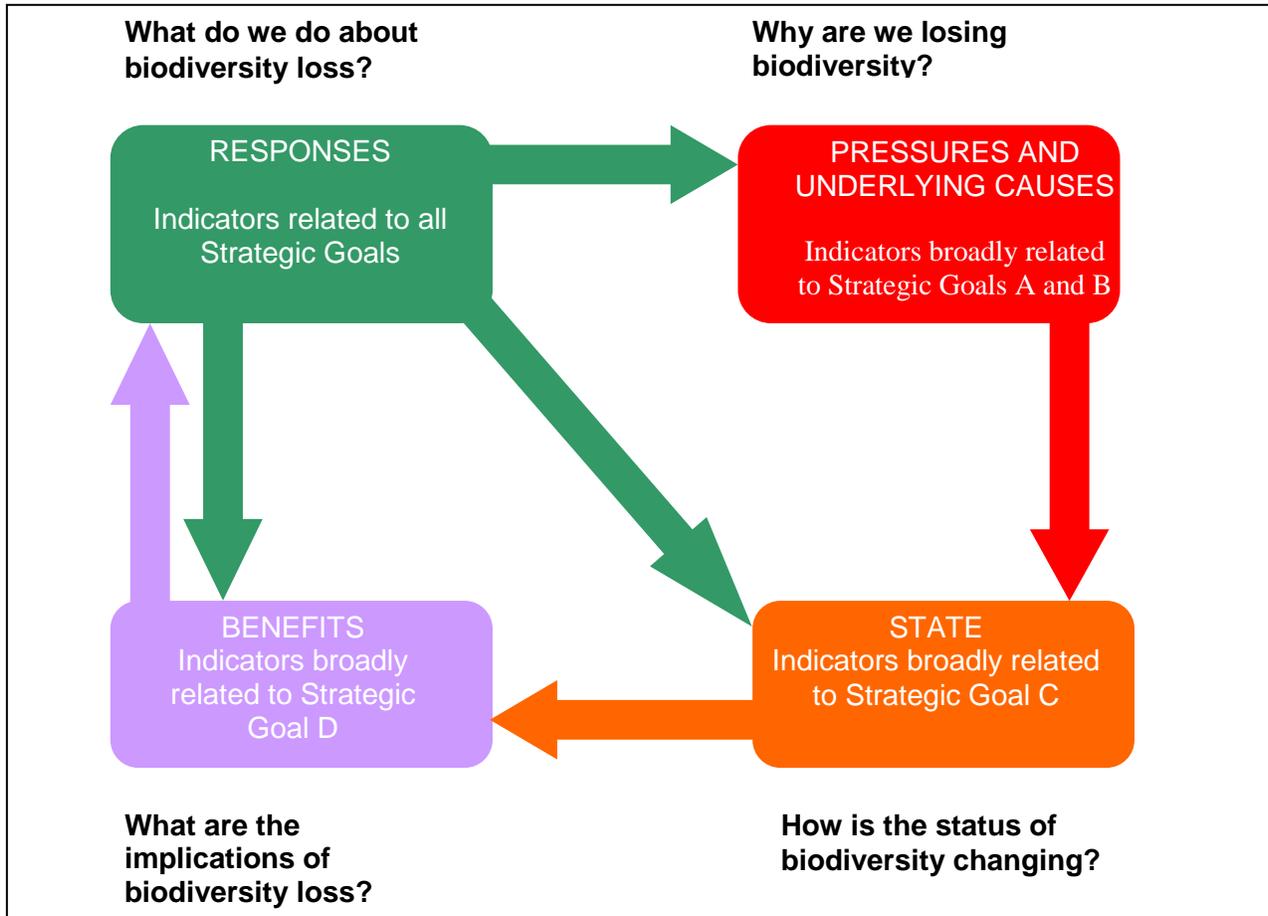
<b>Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity</b>	
<p><b>Target 11</b> - By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.</p>	<p><b>Trends in coverage, condition, representativeness and effectiveness of protected areas and other area-based approaches</b></p> <ul style="list-style-type: none"> <li>• Trends in extent of marine protected areas, coverage of key biodiversity areas and management effectiveness (A)</li> <li>• Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)</li> <li>• Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)</li> <li>• Trends in the connectivity of protected areas and other area based approaches integrated into landscapes and seascapes (B) (decision VII/30 and VIII/15)</li> <li>• <i>Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)</i></li> </ul>
<p><b>Target 12</b> - By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.</p>	<p><b>Trends in abundance, distribution and extinction risk of species</b></p> <ul style="list-style-type: none"> <li>• Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)</li> <li>• Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS)</li> <li>• Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD)</li> </ul>
<p><b>Target 13</b> - By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.</p>	<p><b>Trends in genetic diversity of species</b></p> <ul style="list-style-type: none"> <li>• Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives (B) (decision VII/30 and VIII/15)</li> <li>• <i>Trends in genetic diversity of selected species (C)</i></li> </ul>
	<p><b>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives</b></p> <ul style="list-style-type: none"> <li>• Trends in number of effective policy mechanisms implemented to reduce genetic erosion and safeguard genetic diversity related to plant and animal genetic resources (B)</li> </ul>
<b>Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services</b>	
<p><b>Target 14</b> - By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.</p>	<p><b>Trends in distribution, condition and sustainability of ecosystem services for equitable human well-being</b></p> <ul style="list-style-type: none"> <li>• Trends in proportion of total freshwater resources used (A) (MDG indicator 7.5)</li> <li>• Trends in proportion of the population using improved water services (A) (MDG indicator 7.8 and 7.9)</li> <li>• Trends in benefits that humans derive from selected ecosystem services (A)</li> <li>• Population trends and extinction risk trends of species that provide ecosystem services (A)</li> <li>• Trends in delivery of multiple ecosystem services (B)</li> <li>• Trends in economic and non-economic values of selected ecosystem services (B)</li> <li>• Trends in health and wellbeing of communities who depend directly on local ecosystem goods and services (B) (decision VII/30 and VIII/15)</li> </ul>

	<ul style="list-style-type: none"> <li>• Trends in human and economic losses due to water or natural resource related disasters (B)</li> <li>• Trends in nutritional contribution of biodiversity: Food composition (B) (decision VII/30 and VIII/15)</li> <li>• <i>Trends in incidence of emerging zoonotic diseases (C)</i></li> <li>• <i>Trends in inclusive wealth (C)</i></li> <li>• <i>Trends in nutritional contribution of biodiversity: Food consumption (C) (decision VII/30 and VIII/15)</i></li> <li>• <i>Trends in prevalence of underweight children under-five years of age (C) (MDG indicator 1.8)</i></li> <li>• <i>Trends in natural resource conflicts (C)</i></li> <li>• <i>Trends in the condition of selected ecosystem services (C)</i></li> <li>• <i>Trends in biocapacity (C)</i></li> </ul>
	<p><b>Trends in coverage, condition, representativeness and effectiveness of protected areas and other area-based approaches</b></p> <ul style="list-style-type: none"> <li>• Trends in area of degraded ecosystems restored or being restored (B)</li> </ul>
<p><b>Target 15</b> - By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.</p>	<p><b>Trends in distribution, condition and sustainability of ecosystem services for equitable human well-being</b></p> <ul style="list-style-type: none"> <li>• Status and trends in extent and condition of habitats that provide carbon storage (A)</li> </ul> <p><b>Trends in coverage, condition, representativeness and effectiveness of protected areas and other area-based approaches</b></p> <ul style="list-style-type: none"> <li>• <i>Population trends of forest-dependent species in forests under restoration (C)</i></li> </ul>
<p><b>Target 16</b> - By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.</p>	<p><b>Trends in access and equity of benefit sharing of genetic resources</b></p> <ul style="list-style-type: none"> <li>• ABS indicator to be specified through the ABS process (B)</li> </ul>
<p><b>Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building</b></p>	
<p><b>Target 17</b> - By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.</p>	<p><b>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives</b></p> <ul style="list-style-type: none"> <li>• Trends in implementation of national biodiversity strategies and action plans, including development, comprehensiveness, adoption and implementation (B)</li> </ul>
<p><b>Target 18</b> - By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.</p>	<p><b>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives</b></p> <ul style="list-style-type: none"> <li>• Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (B) (decision X/43)</li> <li>• Trends in the practice of traditional occupations (B) (decision X/43)</li> </ul> <p><b>Trends in accessibility of scientific/technical/traditional knowledge and its application</b></p> <ul style="list-style-type: none"> <li>• Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (B)</li> </ul> <p><b>Trends in accessibility of scientific/technical/traditional knowledge and its application</b></p> <ul style="list-style-type: none"> <li>• Trends of linguistic diversity and numbers of speakers of</li> </ul>

	indigenous languages (B) (decision VII/30 and VIII/15)
<p><b>Target 19</b> - By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.</p>	<p><b>Trends in accessibility of scientific/technical/traditional knowledge and its application</b></p> <ul style="list-style-type: none"> <li>• Trends in coverage of comprehensive policy-relevant sub-global assessments including related capacity building and knowledge transfer, plus trends in uptake into policy (B)</li> <li>• <i>Number of maintained species inventories being used to implement the Convention (C)</i></li> </ul>
<p><b>Target 20</b> - By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.</p>	<p><b>Trends in mobilization of financial resources</b></p> <ul style="list-style-type: none"> <li>• Indicators agreed in decision X/3 (B)</li> </ul>

Annex II

CONCEPTUAL MODEL FOR COMMUNICATING THE DIFFERENT TYPES OF INDICATORS FOR ASSESSING PROGRESS TOWARDS THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020



***XV/2. Ways and means to support ecosystem restoration***

*The Subsidiary Body on Scientific, Technical and Technological Advice*

1. *Takes note* of the indicative list of available practical guidance on ecosystem restoration in section III of the note by the Executive Secretary on ways and means to support ecosystem restoration (UNEP/CBD/SBSTTA/15/4);

2. *Requests* the Executive Secretary, subject to availability of funding, in collaboration with relevant international organizations and other partners to initiate work to:

(a) Compile the information on practical guidance or guidelines developed by government agencies, non-governmental organizations, private sector, indigenous and local communities, and academic and research institutions for the restoration of specific landscapes, ecosystems, habitats, and their components; and identify gaps, if any, and suggest ways for filling those gaps;

(b) Consolidate the existing guidance to address the needs of, and prepare materials for different targeted end-users such as policymakers, implementing agencies, and on-the-ground practitioners, including indigenous and local communities;

(c) Compile information on all relevant tools and technologies, including lessons learned (both positive and negative), and experiences used at different spatial scales and for specific ecosystems and make this information available to support:

(i) Informed decision-making on ecosystem-restoration policy, legislation, and regulation;

(ii) Use of best practices for ecosystem restoration among implementing agencies; and

(iii) The effective design, implementation, and monitoring of ecosystem restoration projects/programmes on the ground;

(d) Compile information on the application of new and emerging technologies [such as synthetic biology] among others for ecosystem restoration;

(e) Compile the most used definitions/descriptions of key terms and highlight their links to targets 14 and 15 of the Strategic Plan for Biodiversity 2011-2020 and targets 4 and 8 of the Global Strategy for Plant Conservation; and

(f) Report on progress in undertaking the above activities for the consideration of the Conference of the Parties at its eleventh meeting;

3. *Recommends* that the Conference of the Parties, in light of its examination of the progress report prepared by the Executive Secretary, considers the need for any further work on ecosystem restoration as well as the possible establishment of an Ad Hoc Technical Expert Group (AHTEG) for this purpose;

4. *Further recommends* that the Conference of the Parties at its eleventh meeting adopts a decision along the following lines:

*The Conference of the Parties,*

*Noting* the key messages contained in section IV of the note by the Executive Secretary on ways and means to support ecosystem restoration prepared for the fifteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/15/4), in particular that ecosystem restoration is not a substitute for conservation, nor is it a conduit for allowing intentional destruction or unsustainable use. Rather, ecosystem restoration is the last resort for ameliorating degraded ecosystems to the benefit of all life on Earth,

*Emphasizing* that the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets provide the overall framework for the Convention towards 2020 and should guide the future work of all of the Convention's cross-cutting issues and thematic areas,

(a) *Urges* Parties and *encourages* other Governments and relevant organizations to make concerted efforts to achieve targets 14 and 15 of the Strategic Plan for Biodiversity 2011-2020 and targets 4 and 8 of the Global Strategy for Plant Conservation and to contribute efficiently to the achievement of all the other Aichi Biodiversity Targets through ecosystem restoration by:

- (i) Effectively implementing the ecosystem restoration-related provisions in previous decisions of the Conference of the Parties and relevant thematic and cross-cutting programmes of work;
- (ii) Identifying, analysing and addressing both underlying and direct causes of ecosystem degradation or fragmentation and using the knowledge gained for preventing or reducing activities which cause further degradation, deterioration or destruction;
- (iii) Improving the status and resilience of ecosystems;
- (iv) Supporting indigenous and local communities in appropriate ecosystem restoration activities in accordance with Article 10(c) and (d) of the Convention on Biological Diversity;
- (v) Taking into consideration strategic goal D of enhancing benefits to all from biodiversity and ecosystem services when making decisions regarding the allocation of resources to ecosystem restoration;

(b) *Invites* Parties, other Governments, relevant intergovernmental organizations, the Society for Ecological Restoration, the International Union for Conservation of Nature, the World Resources Institute, the Global Partnership on Forest Landscape Restoration, the International Tropical Timber Organization and other relevant organizations and initiatives such as the Sub-Global Assessment Network, as appropriate, to support countries in implementing ecosystem restoration by:

- (i) Making available tools such as e-learning programmes;
- (ii) Compiling and disseminating case-studies, best practices, lessons learned, and information on socioeconomic aspects, and methods for assessing the success of restoration projects;
- (iii) Facilitating the sharing of knowledge and publicly available information and supporting existing networks, subject to the domestic legislation of the Parties;
- (iv) Supporting and/or coordinating capacity-building workshops;
- (v) Convening regional/subregional technical training on key themes;
- (vi) Enhancing partnerships and exchange programmes among agencies and restoration practitioners for their mutual benefit;
- (vii) Developing and implementing communication programmes highlighting the economic, ecological and social benefits of ecosystem restoration including awareness-raising among the general public, policymakers and environmental managers not only on the crucial role that ecosystems play in providing ecosystem services, but also on the costs associated with ecosystem degradation, lost incomes, compensation, increased expenses in production; and the cost savings, benefits and the potential solutions that restoration can contribute to common political challenges;
- (viii) Supporting the development and implementation of regional, subregional or national plans or programmes for restoration of ecosystems taking into account the ecosystem approach and the integration of ecosystem restoration into broader planning processes, such as spatial planning;
- (ix) Supporting the large scale replication of projects and programmes that implement the recommendations of research on ecosystem restoration, including their monitoring;

(c) *Requests* the Executive Secretary, subject to the availability of funding, and making use of intersessional work described in paragraph 2 of SBSTTA recommendation XV/2 to:

- (i) Convene regional and subregional capacity-building and training workshops and expert meetings;
- (ii) Facilitate the further development, based on information requested by SBSTTA in paragraph 2 of SBSTTA recommendation XV/2, of a range of implementation tools and practical guidance for ecosystem restoration aimed at different audiences and translated into all United Nations languages, and make it available through the clearing-house mechanism;
- (iii) Facilitate in collaboration with relevant partners the development of a user-friendly, comprehensive central webpage on ecosystem restoration;
- (iv) Compile all decisions of the Conference of the Parties and associated actions related to ecosystem restoration for wider dissemination to Parties;
- (v) Facilitate development and maintenance, in collaboration with partners, of an issue-based module on ecosystem restoration, such as TEMATEA among others;
- (vi) Identify opportunities of collaboration between the Convention on Biological Diversity, the United Nations Convention to Combat Desertification (UNCCD), the United Nations Framework Convention on Climate Change (UNFCCC), the Ramsar Convention on Wetlands, and other multilateral environmental agreements in order to enhance and harmonize efforts in ecosystem restoration and avoid duplication;
- (vii) In collaboration with partners, facilitate the development of a tool for collating and presenting baseline information on ecosystem condition and extent in order to facilitate the evaluation of Aichi target 15 and to assist Parties to identify ecosystems whose restoration would contribute most significantly to the achievement of the Aichi Biodiversity Targets;

(d) *Urges* Parties, and *invites* other Governments, organizations and donors in a position to do so:

- (i) To provide adequate financial technical and other support to the Executive Secretary for the capacity development and implementation initiatives;
- (ii) Taking note of extreme weather events, to support implementation of ecosystem restoration towards mitigation and management of the impacts of natural disasters.

### ***XV/3. Draft Capacity-building Strategy for the Global Taxonomy Initiative***

#### **I. RECOMMENDATION OF SBSTTA**

##### *The Subsidiary Body on Scientific, Technical and Technological Advice*

1. *Emphasizes* that the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets (decision X/2 of the Conference of the Parties, annex) provide the overall framework for the Convention towards 2020 and should guide the future work of all of the Convention's cross-cutting issues and thematic areas, and *acknowledges* the importance of the draft Capacity-building Strategy for the Global Taxonomy Initiative (UNEP/CBD/SBSTTA/15/5, annex) in this context;
2. *Welcomes* the draft Strategy in support of the Strategic Plan for Biodiversity 2011-2020;
3. *Requests* the Executive Secretary to:
  - (a) Invite Parties and observer institutions, bodies and organizations and indigenous and local communities, to provide further inputs to the draft Strategy;
  - (b) Revise the draft Strategy, taking into account the comments from Parties at the fifteenth meeting of the SBSTTA, additional submissions from Parties and observers, institutions, bodies and organizations and indigenous and local communities;
  - (c) Make the revised Strategy available for consideration and finalization by SBSTTA at its sixteenth meeting for subsequent submission to the eleventh meeting of the Conference of the Parties.

#### **II. RECOMMENDATION TO THE CONFERENCE OF THE PARTIES**

*Recommends* that the Conference of the Parties, at its eleventh meeting, adopts a decision along the following lines:

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

1. *Emphasizes* that the new Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets provide the overall framework for the Convention towards 2020 and should guide the future work of all of the Convention's cross-cutting issues and thematic areas, and *acknowledges* the importance of the draft Capacity-building Strategy for the Global Taxonomy Initiative in this context;
2. *Welcomes* the revised GTI Capacity-building Strategy in support of the Strategic Plan for Biodiversity 2011-2020;†
3. *Invites* Parties and other Governments to integrate, as appropriate, in a timely manner, the actions of the GTI capacity-building strategy in their updated national biodiversity strategies and action plans (NBSAPs), noting that taxonomic capacity-building requires multidisciplinary participation, including participation of indigenous and local communities, as appropriate;
4. *Invites* taxonomic and other relevant organizations, including, *inter alia*, taxonomic networks, natural history museums and other scientific institutions and partners that contribute to the capacity-building strategy for the GTI to pay particular attention to the achievement of the outcome-oriented deliverables for the implementation of the programme of work for the GTI annexed to decision IX/22;
5. *Further invites* these organizations and Parties to make particular efforts to train, sustain, enhance and increase human resources for creating inventories, monitoring biodiversity and further taxonomic information, as well as to build and maintain publicly available information systems and facilities for biological collections subject to national legislation of Parties, as appropriate;

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† The document will be reviewed by the sixteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice.

6. *Recognizing* the importance of an interdisciplinary approach to the study of biodiversity, *encourages* collaboration between taxonomic and other institutions and organizations and application of new methodologies and techniques to achieve Aichi Biodiversity Target 19;

7. *Recognizes* the importance of increasing the scientific standing of taxonomic research, strengthening taxonomic expertise, in particular, on lesser studied or known groups, and that creating the demand for taxonomic information is an important step to respond to decision X/39 that, *inter alia*, encourages job opportunities and incentives for young taxonomists;

8 *Encourages* the scientific community to give more recognition to taxonomic publications;

9. *Requests* Parties to report on the effectiveness of their capacity-building efforts to support the implementation of the GTI through their fifth and sixth national reports to the Convention and *requests* the Executive Secretary to report on the progress of implementation of the GTI, based on the national reports received from Parties to the corresponding meetings of the Conference of the Parties;

10. *Requests* the Executive Secretary, subject to the availability of financial resources, to organize and facilitate, as far as feasible in partnership with academic organizations, biodiversity-related multilateral environmental agreements and relevant international organizations:

(a) Regional workshops to assist Parties and their GTI national focal points, and others CBD focal points and other stakeholders to use the GTI capacity-building strategy to integrate taxonomy in updated national biodiversity strategies and action plans. Partners in these workshops may include other relevant stakeholders such as indigenous and local communities;

(b) Workshops in collaboration with GTI national focal points and partners to provide practical tools to improve the taxonomic and related skills of human resources and to raise awareness of a wide range of stakeholders on the usefulness of taxonomic information in the context of the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from the utilization of genetic resources;

(c) The development, in collaboration with the GTI Coordination Mechanism and partners of a practical learning kit for the CBD and GTI national focal points to promote the GTI and facilitate their communication with all relevant stakeholders, including indigenous and local communities to strengthen the engagement of all relevant sectors and to support the actions of the GTI capacity-building strategy;

11. *Invites* Parties, academic institutions and relevant organizations to support long term training programmes, including internships, fellowships and under- and post-graduate trainings to improve taxonomic and related skills of human resources;

12. *Recognizing* that taxonomic research may involve the movement of genetic resources between countries and access to traditional knowledge, *emphasizes* the need for these activities to be undertaken in line with the provisions on access and benefit-sharing of the Convention and, where applicable, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefit Arising from Their Utilization, and subject to their domestic legislation or regulatory requirements;

13. *Notes* the importance of traditional taxonomic knowledge of indigenous and local communities in the context of the Global Taxonomy Initiative;

14. *Recognizing* the need for financial resources for capacity-building, including the consolidated guidance to the financial mechanism, *urges* Parties and *invites* other Governments, organizations and donors to provide adequate financial and technical support for Parties to carry out taxonomic projects and activities that prioritize the implementation of the Strategic Plan for Biodiversity 2011-2020;

15. *Takes note* of the revised terms of reference for the Coordination Mechanism for the Global Taxonomy Initiative (UNEP/CBD/SBSTTA/15/INF/5) as well as the questionnaires for taxonomic needs and capacity assessments (UNEP/CBD/SBSTTA/15/INF/4), which will be helpful for setting priorities for taxonomic capacity-building in updated national biodiversity strategies and action plans.

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#### *XV/4. Invasive alien species*

### **I. RECOMMENDATION TO THE CONFERENCE OF THE PARTIES**

The Subsidiary Body on Scientific, Technical and Technological Advice *recommends* that the Conference of the Parties adopt a decision along the following lines:

#### *The Conference of the Parties*

*Ways and means to address gaps in international standards regarding invasive alien species introduced as pets, aquarium and terrarium species, as live bait and live food*

1. *Takes note* of the report of the Ad Hoc Technical Expert Group (AHTEG) meeting on addressing the risks associated with the introduction of alien species as pets, aquarium and terrarium species, and as live bait and live food (UNEP/CBD/SBSTTA/15/INF/1);

2. *Expresses its gratitude* to the Co-Chairs and members of the Ad Hoc Technical Expert Group (AHTEG) for their work and to the Governments of Spain and Japan for their financial support;

3. *Recognizing* the multi-sectoral nature of issues associated with invasive alien species, *reiterates* that the Guiding Principles adopted in decision VI/23‡ continue to provide relevant guidance for addressing the risks associated with the introduction of alien species as pets, aquarium and terrarium species, and as live bait and live food;

4. *Encourages* Parties and other Governments to ensure, at the national level, effective collaboration among national authorities and focal points that deal with the Convention on Biological Diversity and International Plant Protection Convention (IPPC), the World Organisation for Animal Health (OIE), the Codex Alimentarius Commission, the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures (WTO-SPS Agreement), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Food and Agriculture Organization of the United Nations (FAO), to address threats from invasive alien species, and, as appropriate, when addressing the risks associated with the introduction of alien animal species as pets, aquarium and terrarium species, and as live bait and live food to make full use of existing standards;

5. *Requests* the Executive Secretary, with further inputs from Parties as well as members of the Ad Hoc Technical Expert Group (AHTEG) and other experts as required, in collaboration with the members of the inter-agency liaison group, with the full and effective participation of indigenous and local communities, and drawing upon the collaborative work of national authorities and industry groups, to prepare proposals for more detailed guidance for Parties on the drafting and implementation of national measures associated with the introduction of alien animal species as pets, aquarium and terrarium species, and as live bait and live food, in order to complete the tasks set out in the annex to decision X/38, for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice before the twelfth meeting of the Conference of the Parties;

6. *Recognizing* trade and the changes of present-day trade patterns as one of the increasing pathways of invasive alien species and especially the rapid growth of international market places over the Internet, including for the sale and purchase of live animal species, *requests* the Executive Secretary:

(a) To compile and disseminate methodologies and instruments in use by law enforcement, customs and inspection agencies to monitor and control related trade and cross-border movements of alien species introduced as pets, aquarium and terrarium species, and as live bait and live food; and

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‡ 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).

(b) To collect information on best practices to raise public awareness and disseminate guidance to Internet traders;

7. *Recognizing* the potential risks of introduction and spread of invasive alien animal species from commercial zoos and safari parks, and breeding and trade centres, resulting from escapes of the animals, and the release and escape of animals used as live food, *requests* the Executive Secretary to compile information and work with experts to avoid and/or minimize the risks particular to these separate pathways;

8. *Concerned* about the potential risks associated with intentional and unintentional release and escapes of individuals of captive-bred alien populations and genotypes of pets, aquarium and terrarium species, species used as live bait and live food, impacting on native genetic diversity, and *noting* the need to document and develop guidance on how to deal with these risks, *requests* the Executive Secretary to collect case-studies and explore measures in collaboration with relevant international organizations on how to deal with such risks;

*Ways and means to address gaps in international standards regarding invasive alien species*

*Recalling* paragraphs 2-6 of its decision IX/4 A,

9. *Encourages* members of the Committee on Sanitary and Phytosanitary Measures of the World Trade Organization, and members of its recognized standard-setting organizations to further address, including by developing and improving international standards, the risks posed by introductions of invasive alien species that are a threat to biodiversity but not considered pests of plants, pathogens or parasites that affect domestic animals, or harmful to human health, and taking note that the risks associated with the introduction of alien species may include impacts on ecosystem functioning and biodiversity at the ecosystem, species and gene levels. The Convention on Biological Diversity could offer to collaborate with the Committee on Sanitary and Phytosanitary Measures on this matter;

10. *Encourages* the International Plant Protection Convention to:

(a) *Invite* its members to broaden their sanitary and phytosanitary measures for the protection of plants in marine environments in particular, as well as terrestrial and freshwater environments;

(b) Broaden the application of the International Plant Protection Convention to include the health of bryophytes and algae species; and

(c) Clarify whether its mandate also applies to the health and protection of fungi, with a view to identifying and, if necessary, addressing possible gaps;

11. *Recognizes* the important contributions of the World Organisation for Animal Health and *encourages* the Organization to pursue its efforts in considering the impacts of invasive alien species on ecosystems and animal health, and to update the OIE Aquatic Code and the OIE Terrestrial Code, and provide advice and guidance on the assessment of the risk of invasion of alien species on ecosystems;

12. *Further requests* the Executive Secretary to continue to pursue the tasks set out in paragraphs 11, 12 and 13 of decision IX/4 A and paragraph 13 of decision X/38, especially regarding progress in the relationship with standard-setting bodies of the World Trade Organization (WTO) and other relevant organizations;

13. *Recognizing* the relevance, importance and applicability of existing international standards, guidelines and recommendations to address the risks associated with the introduction of alien species, and to manage pathways to prevent their introduction and spread in order to achieve target 9 of the Strategic Plan for Biodiversity 2011-2020, *requests* the Executive Secretary in line with paragraph 3 (c) of decision X/38, in collaboration with the relevant international organizations that set international standards, guidelines and recommendations to develop a practical non-prescriptive toolkit

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for Parties regarding the application of existing international standards, guidelines and recommendations, and disseminate, *inter alia*, through the clearing-house mechanism of the Convention, no later than the twelfth meeting of the Conference of the Parties. The toolkit should include:

- (a) Practical non-prescriptive advice on how the components of the international regulatory framework can be used by Parties in addressing the threats from invasive alien species;
- (b) Tools and information on relevant risk-analysis;
- (c) Information on how Parties have developed, integrated, and strengthened national invasive alien species strategies into their national policies;
- (d) Lessons learned from countries' use of lists and management of alien species for all stakeholders, including border-control officials, traders and consumers, regulating whether or not a particular species may be imported, kept, bred, applied for trade; as well as information on the relative strengths and limitations of listing systems;
- (e) Examples of voluntary measures that address specific circumstances;
- (f) Information on capacity development for the identification of potentially invasive alien species and assessment of relevant pathways;
- (g) Information on how national authorities and industry can develop close collaboration to ensure compliance with national regulations on the import of alien species; and
- (h) Information on how regional cooperation could harmonize policy on the introduction of alien species as pets, aquarium and terrarium species, and as live bait and live food;

[14. *Requests* the Executive Secretary to renew the application of the Convention on Biological Diversity for observer status in the Committee on Sanitary and Phytosanitary Measures of the World Trade Organization with a view to enhancing the exchange of information on deliberations and recent developments in bodies relevant to invasive alien species, in light of the increasing importance of the ecosystem level when establishing adequate standards;]

#### *Other matters*

15. *Requests* the Executive Secretary to explore methodologies for fostering awareness, promoting education and generating information on invasive alien species for a broad audience including Indigenous and local communities, the public and other stakeholders;

16. *Encourages* Parties, other Governments and relevant organizations, including local taxonomic institutions to develop capacity, *inter alia*, in line with the Capacity-Building Strategy for the Global Taxonomy Initiative, for Parties to the Convention on Biological Diversity to meet target 9 of the Strategic Plan for Biodiversity 2011-2020. Emphasis should be placed on developing tools to strengthen the capacity of border control and other competent authorities to identify invasive alien species or potentially invasive alien species, to assess risks and take steps to manage or minimize the risks;

17. *Recalling* paragraph 7 of decision X/38, *welcomes* the work of the Global Biodiversity Information Facility (GBIF) to improve the interoperability of online databases and networks and facilitate the use of information necessary to conduct risk and/or impact assessments and encourages Parties, Governments and relevant institutions and organizations to participate in developing interoperable information systems that can be used in developing early-detection and rapid-response systems;

18. *Recognizing* the vital importance of access to accurate information on invasive alien species in developing indicators to monitor the progress of achieving target 9 of the Strategic Plan for Biodiversity 2011-2020 and the need to maximize synergies among existing information services, welcomes the proposed the joint work programme to strengthen information services on invasive alien

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species as a contribution towards Aichi Biodiversity Target 9 (UNEP/CBD/SBSTTA/15/INF/14), and *requests* the Executive Secretary to facilitate its implementation, and invites Parties, information services and other organizations to contribute to this work;

*Considerations for future work*

19. *Recognizing* invasive alien species as one of the main drivers of biodiversity loss, their increasing impact on biodiversity and on economic sectors, negatively affecting human well-being, *emphasizes* the need to continue to work on this issue, in order to achieve target 9 of the Strategic Plan for Biodiversity 2011-2020;

20. *Requests* the Executive Secretary, in collaboration with relevant partners, to

(a) Assess progress in implementing decisions of the Conference of the Parties on invasive alien species, including decisions that address gaps and inconsistencies in the international regulatory framework identified in decision VIII/27;

(b) Prepare a preliminary list of the most common pathways for invasive alien species, propose criteria or other ways by which they may be prioritized, and identify a range of tools that may be used to manage or minimize the risks associated with the pathways;

and to report thereon to a meeting of the Subsidiary Body on Scientific, Technical and Technological Advice before the twelfth meeting of the Conference of the Parties in order to inform consideration of the need for future work.

## **II. REQUEST TO THE EXECUTIVE SECRETARY**

*The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA)*

1. *Requests* the Executive Secretary, in collaboration with the members of the inter-agency liaison group on invasive alien species, to prepare an information document on how the standards, guidance and relevant activities of the organizations referred to in paragraph 4 above could support Parties in addressing the threats from invasive alien species introduced as pets, aquarium and terrarium species, as live bait and live food, and to make it available before the eleventh meeting of the Conference of the Parties.

2. *Further requests* the Executive Secretary to prepare a report to be submitted to the eleventh meeting of the Conference of the Parties on the status of the application of the Secretariat of the Convention on Biological Diversity for observer status to the World Trade Organization.

**XV/5. Biological diversity of inland water ecosystems**

**I. CONCLUSIONS OF THE SUBSIDIARY BODY**

*The Subsidiary Body on Scientific, Technical and Technological Advice:*

1. *Emphasizes* that the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets provide the overall framework of the Convention towards 2020 and should guide the future work of all of the Convention's cross-cutting issues and thematic areas;

2. *Notes with appreciation* the reports prepared by the Executive Secretary (UNEP/CBD/SBSTTA/15/8; UNEP/CBD/SBSTTA/15/9; UNEP/CBD/SBSTTA/15/10; UNEP/CBD/SBSTTA/15/11; and UNEP/CBD/SBSTTA/INF/15) and after considering them *concludes* that:

(a) The implications of the water cycle and freshwater resources in the implementation of all of the thematic and cross-cutting programmes of work of the Convention and the Strategic Plan for Biodiversity 2011–2020 and its Aichi Biodiversity Targets are far-reaching including, *inter alia*, that:

- (i) The water cycle is a bio-physical process underpinned by ecosystems and that changes in water availability and quality, including *inter alia* humidity, soil moisture and evapo-transpiration of plants, affect biodiversity, ecosystem functions and the delivery of ecosystem services;
- (ii) There are many and varied implications of the way in which the water cycle functions, making it necessary to consider water a “cross-cutting” subject under the framework of the ecosystem approach;
- (iii) The water cycle forges strong links between the various Aichi Biodiversity Targets, and it remains important to adequately capture the relevant aspects of the water cycle through the monitoring framework for the Strategic Plan under further development (decision X/7);
- (iv) Biodiversity is essential to guarantee ecosystems are self-supporting and meet human needs for water-related ecosystem services in a cost-effective manner;
- (v) Biodiversity plays an important role in sustaining water for human activities such as agriculture, forestry and fisheries, among others;
- (vi) Taking into consideration that water issues and solutions can be very much case and locality specific, and it is not possible to be prescriptive or exhaustive regarding priorities, some key areas for additional attention can be identified, such as: the role of vegetation in sustaining local and regional precipitation and humidity; the importance of soil biodiversity with regards to soil moisture and water balances and therefore in sustaining land functionality; the importance of the water cycle in sustaining desirable levels of sediment transfer and deposition and the substantial ecosystem services this underpins (particularly in coastal areas); the role of biodiversity and ecosystems in regulating the extremes of water availability (including both drought and flooding); and the importance of the water cycle in the exchange of organic matter, nutrients and energy between forests, soils and water, which, for example, occurs seasonally in particular ecosystems such as the Amazon; and
- (vii) Groundwater and aquifers are important components of the water cycle and require more attention as they are suffering severe depletion in many regions. Groundwater and surface-water resources are inter-linked, including through wetlands and the functionality of land cover, including by facilitating soil-water infiltration;

(b) Water use for different purposes may affect downstream ecosystems and groundwater supplies, with consequent impacts on terrestrial ecosystems;

(c) Regional initiatives that establish frameworks by legal and other effective means for integrated water management can serve as models for other regions to strengthen effective trans-national catchment management systems;

(d) The findings, tools and methods that are already available should be applied at local, national or regional levels in order to address threats faced by inland water ecosystems, their functions and services;

(e) The work within the framework of the study on The Economics of Ecosystems and Biodiversity (TEEB) and the application of economic-appraisal techniques to ecological resources present new opportunities to influence policies and decision-making at the national level. Economic assessments provide only a preliminary and limited approximation of the fiscal value of inland water ecosystems; they should not be taken as the definitive valuation of a given resource but serve only as a guide in the context of decision-making for developmental planning;

(f) Inland water ecosystems, including their watersheds, provide ecosystem services which are important for sustaining biodiversity and human well being. Therefore, it is necessary to enhance technical, financial and other capacity in developing country Parties, in particular the least developed countries and small island developing States, as well as countries with economies in transition, in order to promote sustainable water management;

(g) Women are key stakeholders in sustaining family well-being, and using the biodiversity components of water-related ecosystem services and their knowledge related to water is a key factor in the implementation of the programme of work on inland waters biodiversity;

(h) Indigenous and local communities that maintain a very close, holistic, cultural and spiritual relationship with essential elements of biodiversity associated with the water cycle, as demonstrated in many cultural activities, including through indigenous languages, can help to promote sustainable water management based on their traditional knowledge;

(i) Nutrient loading, including from unsustainable agricultural production and other sectoral activities, is among the main threats to inland water and coastal biodiversity and is directly relevant to achieving targets 7, 8, 11 and 14, among others, of the Strategic Plan for Biodiversity 2011-2020. More attention should be paid to eutrophication in freshwater as well as in coastal ecosystems worldwide;

(j) In view of the increasing pressures on inland waters due to global changes, there is a need to better understand the impacts of these changes on inland waters biodiversity and how this affects ecosystem functions;

(k) The ongoing scientific work on this topic (as described in the progress report on the work in addressing paragraphs 39-41 of decision X/28 on review of information, and the provision of key policy-relevant messages, on maintaining the ability of biodiversity to continue to support the water cycle, (UNEP/CBD/SBSTTA/15/11 and UNEP/CBD/SBSTTA/INF/15) will be a useful resource for the Subsidiary Body on Scientific and Technological Advice to consider this topic further in its future work in many subject areas, including in the implementation and the future review of the programmes of work of the Convention;

(l) The 6th World Water Forum, to be held in Marseille, France, in March 2012, represents an opportunity to raise awareness on biodiversity and water issues.

## II. REQUESTS TO THE EXECUTIVE SECRETARY

The Subsidiary Body on Scientific, Technical and Technological Advice *requests* the Executive Secretary, and *invites* the Secretariat of the Ramsar Convention on Wetlands to:

(a) Based on discussion with potential partners and stakeholders, include under the Joint Work Plan with the Ramsar Convention on Wetlands an assessment of opportunities for enhanced collaboration on solutions to water problems and to report on the options to the eleventh meeting of the Conference of the Parties to the Convention on Biological Diversity;

(b) Make the report of the expert group on maintaining the ability of biodiversity to continue to support the water cycle (as established in decision X/28, paragraph 39) available for the information of, and a summary report of its findings for the consideration of, the eleventh meeting of the Conference of the Parties;

(c) Further streamline their activities in order to make best use of available resources and to further explore the scope for greater integration of the work of the two Conventions across all relevant programmes of work of the Convention on Biological Diversity, in order to achieve the greatest synergy, including the potential for joint meetings, and to report on options to the eleventh meeting of the Conference of the Parties.

### **III. RECOMMENDATIONS TO THE CONFERENCE OF THE PARTIES**

The Subsidiary Body on Scientific, Technical and Technological Advice *recommends* that the Conference of the Parties at its eleventh meeting:

1. *Recognizes* the importance of the water cycle to most areas of the Strategic Plan for Biodiversity 2011-2020 and to achieving most of the Aichi Biodiversity Targets and *considers* raising awareness of this, and thereby strengthening implementation of the Strategic Plan, through, *inter alia*, making biodiversity and water a cross-cutting issue under the Convention on Biological Diversity;

2. *Considers* the outcomes of the expert group on maintaining the ability of biodiversity to continue to support the water cycle (as established in decision X/28, paragraph 39);

3. *Notes* that the term “wetland”, as defined by the Ramsar Convention, offers flexible scope for national interpretation for addressing biodiversity challenges related to ecological inter-linkages between inland, coastal and marine areas, and *invites* Parties and other Governments to consider wider adoption of the term in implementation of the Convention on Biological Diversity, particularly for achieving target 11 of the Strategic Plan for Biodiversity 2011-2020; and

4. *Takes note* that the year 2013 will be the United Nations Year of Water Cooperation and that this provides, together with the current “International Decade for Action 'Water for Life' 2005-2015”, opportunities to bring water and biodiversity issues to broad public attention.

## XV/6. Sustainable use of biodiversity

### I. RECOMMENDATION TO THE CONFERENCE OF THE PARTIES

The Subsidiary Body on Scientific, Technical and Technological Advice *recommends* that the Conference of the Parties adopts a decision along the following lines:

*The Conference of the Parties,*

*Emphasizing* that sustainable use of biodiversity is a precondition to achieving the Aichi Biodiversity Targets of the Strategic Plan for Biodiversity 2011-2020,

*Noting* the need for capacity-building and for adequate financial and technical support to developing countries to further promote the sustainable use of biodiversity,

*Recalling* existing guidance on sustainable use already developed within the Convention on Biological Diversity, in particular the Addis Ababa Principles and Guidelines, the ecosystem approach as well as relevant elements of the thematic programmes of work, selected targets of the Global Strategy for Plant Conservation, the recommendation from the Liaison Group on Bushmeat and ongoing work on customary sustainable use (Article 10(c)), including by the Ad Hoc Open-Ended Working Group on Article 8(j) and Related Provisions,

*Acknowledging* the importance of the work on the application of sustainable use carried out by international organizations in particular the Food and Agriculture Organization of the United Nations, and the International Tropical Timber Organization, as well as under relevant conventions and international agreements,

1. *Takes note* of the guidance in the note by the Executive Secretary on how to improve the sustainable use of biodiversity in a landscape perspective (UNEP/CBD/SBSTTA/15/13) and the guidance on application of the Addis Ababa Principles and Guidelines to agriculture (UNEP/CBD/SBSTTA/14/INF/34), and *invites* Parties to consider this guidance as useful complements to existing guidance under the Convention on Biological Diversity,

2. *Encourages* Parties to strengthen the application of the Addis Ababa Principles and Guidelines and the ecosystem approach in all spatial planning and sectoral policies that relate to the wider land and seascape and its components;

3. *Welcomes* the Joint Work Plan of the Secretariats of the Convention on Biological Diversity and of the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture, Phase 2 (2011-2020), as a framework to advance biodiversity initiatives of mutual interest;

4. *Welcomes* the new major component in the revised programme of work on Article 8(j) and related provisions, which focuses on Article 10(c) and will build on the Addis Ababa Principles and Guidelines;

5. *Invites* Parties and other Governments to apply the ecosystem approach in planning and implementing climate-change-adaptation activities in order to avoid and/or mitigate their impacts on biodiversity, including displacement of pressure on biodiversity from one area to another;

6. *Invites* relevant intergovernmental organizations, including members of the Collaborative Partnership on Forests, to integrate existing guidance on sustainable use of biodiversity developed under the Convention into their work programmes;

7. *Invites* the United Nations Environmental Management Group, through its Issues Management Group on Biodiversity, in cooperation with other relevant organizations to promote existing guidance on sustainable use in key sectors as they relate to the organizations that are part of the Environmental Management Group, the Strategic Plan and each of the Aichi Biodiversity Targets;

8. *Recalling* its decision X/32, *recognizes* the [potential] usefulness of the *Satoyama* Initiative as a platform for establishing synergies among the various existing landscape level initiatives, including the Man and the Biosphere (MAB) programme of the United Nations Educational, Scientific and Cultural Organization, the International Model Forest Network, and other initiatives that include community conservation areas that are developed and managed by indigenous and local communities, and *invites* Parties, other Governments, and relevant organizations to join the International Partnership for the *Satoyama* Initiative;

9. *Urges* Parties to acknowledge the important role of indigenous and local communities in the sustainable use of biodiversity, and to facilitate their full and effective participation in the design and implementation of policies and programmes at national and sub-national levels, according to national legislation;

10. *Requests* the Executive Secretary to provide periodic updates, to the Subsidiary Body on Scientific, Technical and Technological Advice, on the progress made on customary sustainable use of biodiversity by indigenous and local communities, by the Ad Hoc Working Group on Article 8(j) and Related Provisions;

11. *Notes with appreciation* the support afforded to the work of the Liaison Group on Bushmeat by the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals, the Central African Forests Commission, IUCN-International Union for the Conservation of Nature, the Food and Agriculture Organization of the United Nations, the Great Apes Survival Partnership (led by the United Nations Environment Programme and the United Nations Educational, Scientific and Cultural Organization), the Center for International Forestry Research, the Wildlife Trade Monitoring Network (TRAFFIC) and the International Council for Game and Wildlife Conservation;

12. *Welcomes* the revised recommendations of the Liaison Group on Bushmeat (annexed to the present decision) as a potential complement to the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity related to sustainable wildlife management in tropical and sub-tropical countries;

13. *Takes note* of the outcome of the international symposium on 'The relevance of community-based natural resources management (CBNRM) to the conservation and sustainable use of CITES-listed species in exporting countries' (UNEP/CBD/SBSTTA/15/INF/12), and *reiterates* the need for strengthening the cooperation between the Convention on Biological Diversity and the Convention on International Trade in Endangered Species of Wild Fauna and Flora to enhance the sustainable use of species and livelihood benefits associated with community conservation programmes, with the potential for development of sustainable small-scale food production and income-generating alternatives;

14. *Invites* Parties, other Governments and relevant organizations to:

(a) Implement the recommendations of the Liaison Group on Bushmeat as annexed to this decision, where appropriate and as a potential complement to the Addis Ababa Principles and Guidelines, taking into account Article 10(c) of the Convention as well as national legislation;

(b) Further develop and adapt the recommendations for implementation in other countries, as appropriate;

(c) Develop and promote methods and systems, and build capacity to determine levels of sustainable harvest of wildlife at national and other levels, with a particular view to monitor and improve sustainable wildlife management and customary sustainable use, consistent with national legislation;

(d) Develop and promote alternatives to unsustainable management and use of wildlife, depending on the local and national context, and engage with the scientific community and relevant other organizations working on sustainable development in relevant sectors such as agriculture, forestry and fisheries in improving sustainable use;

15. *Invites* relevant organizations, in particular the members of the Collaborative Partnership on Forests, to assist tropical and sub-tropical countries in implementing the recommendations of the Liaison Group on Bushmeat according to their national context;

16. *Requests* the Executive Secretary to:

(a) Support capacity-building initiatives in the management of wildlife for customary sustainable use, with the full and effective participation of indigenous and local communities;

(b) Further develop the linkages between the work on Article 10(c) of the Convention and customary sustainable use of bushmeat;

(c) Facilitate the exchange of information and experience on sustainable wildlife management;

(d) Based on submission from Parties and relevant organizations, and with the full and effective participation of indigenous and local communities, report to the twelfth meeting of the Conference of the Parties on progress of the implementation of the recommendations of the Liaison Group on Bushmeat, and on related capacity-building requirements.

## **II. REQUEST TO THE EXECUTIVE SECRETARY**

The Subsidiary Body on Scientific, Technical and Technological Advice *requests* the Executive Secretary to:

(a) Report on the issue of bushmeat during the discussions at the eleventh meeting of the Conference of the Parties on Article 8(j) regarding the new proposed element on Article 10 with a focus on Article 10(c), in order for this issue to be taken into consideration when discussing the indicative Plan of Action developed the Ad Hoc Open-Ended Working Group on Article 8(j) and Related Provisions;

(b) Explore options for the development of a collaborative partnership on sustainable wildlife management to enhance cooperation and coordination for implementation of the recommendations of the Liaison Group on Bushmeat, and to report to the Conference of the Parties at its eleventh meeting.

**REVISED RECOMMENDATIONS OF THE CONVENTION ON BIOLOGICAL DIVERSITY  
LIAISON GROUP ON BUSHMEAT**

**I. NATIONAL LEVEL**

1. *Increasing capacity to fully evaluate the bushmeat issue and establish appropriate policies and management regimes.* National Governments should, with the full and effective participation of indigenous and local communities, evaluate the role of bushmeat and other wild animal products in national and local economies and cultures as well as the ecological services provided by harvested species and other biodiversity as an essential step towards conserving and sustainably using this resource. This can be done by:

(a) Increasing capacity to monitor levels of bushmeat harvest and consumption in national statistics to inform improved policy and planning;

(b) Incorporating a realistic and open assessment of wildlife consumption and its role in livelihoods and cultures into major policy and planning documents;

(c) Establishing mechanisms for full and effective participation of indigenous and local communities in the process, to ensure inclusion of their views on the role of bushmeat in their diets and their cultures, and the impacts of unsustainable bushmeat use on their livelihoods, and to include traditional knowledge and customary laws in policymaking and planning.

2. *Engaging the private sector and extractive industries.* Wildlife management, including bushmeat species management, should be an essential part of management or business plans for natural resource industries (oil, gas, minerals, timber, etc.) operating in tropical, sub-tropical forest, wetland and savannah ecosystems. Where possible identify and apply existing biodiversity safeguards and standards within extractive industry guidelines and policies (such as safeguards for sustainable forest management - SFM). The private sector should provide food alternatives for staff working in logging concessions (for example: stipulated in the contracts between government and extractive industries).

3. *Rights and tenure, and traditional knowledge:* Access, rights and associated accountability, as well as the responsibility to sustainably manage wildlife resources should be transferred whenever possible to indigenous and local communities and other local stakeholders who have a vested interest in maintaining the resources and who can deliver sustainable, desirable solutions. Capacity of these empowered indigenous and local communities should be built and strengthened to ensure that they have the capacity to exercise these rights. Conservation and sustainable use of wildlife resources would be enhanced through the incorporation of traditional knowledge and customary sustainable use into management and monitoring systems, as well as by favouring the use of the most ecologically friendly (e.g. species-specific), cost-efficient, and humane hunting methods.

4. *Review of national policies and legal frameworks:* States where bushmeat species occur are strongly encouraged to review existing policies and legal frameworks related to the conservation and sustainable use of wildlife. In addition to restricting harvesting in protected areas and of threatened species in accordance with existing legislation, it is recommended that States establish strategies, policies, capacity, and management systems that support the legal and sustainable hunting of targeted species. The review should ensure:

(a) That national regulatory frameworks take into consideration the established rights of indigenous and local communities as they pertain to the customary sustainable use of species for bushmeat;

- (b) The coherence of policy and legal frameworks through mainstreaming conservation and sustainable use of wildlife in the various sectoral and national planning exercises;<sup>4</sup>
- (c) That management schemes are practical and feasible for harvestable species as well as those in need of strict protection (e.g., endangered species);
- (d) Realistic approaches to enforcement in which control measures are consistent with capacity;
- (e) That legal and regulatory texts reflect current practices without compromising key conservation objectives;
- (f) Promotion of the sustainable harvest of low-risk species and of measures to enhance protection of high-risk species;
- (g) The full and effective participation of indigenous and local communities, and include their views and proposals based on traditional knowledge, customary practices and laws.
- (h) That sanctions and penalties have a deterrent effect.

5. *Landscape-level management:* An effectively managed and coherent network of protected areas is essential to conserve wildlife, including threatened species. In order to conserve wildlife populations outside protected areas, management should consider the landscape level.

6. *Science, traditional and indigenous knowledge and monitoring.* Management decisions should be made based on the best available and applicable science, the precautionary approach and the practices and traditional knowledge of indigenous and local communities. Further research is crucial and better information management is needed. Appropriate monitoring systems of bushmeat harvest and trade and wildlife habitats should be developed based on an integration of traditional, indigenous and scientific knowledge and implemented at national level, and allow for comparability of bushmeat harvest and trade at the regional level. International support and guidance should be provided for harmonization of monitoring and reporting. Standardized methods to assess and monitor the status of wildlife populations should be developed and implemented. New, updated and additional reliable data on populations of harvested species and on levels of use and trade should be made available for consideration within the Convention on Biological Diversity – Subsidiary Body on Scientific, Technical and Technological Advice (CBD-SBSTTA), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Animals Committee, the Convention on Migratory Species of Wild Animals (CMS) Scientific Council, other relevant international conventions, the Great Apes Survival Partnership led by the United Nations Environment Programme (UNEP-GRASP) and the International Union for Conservation of Nature (IUCN) Red Listing Process

7. *Substitution and other mitigative measures:* The development of culturally acceptable and economically feasible alternative food and income sources is essential where wildlife alone cannot be sustainably used to support current or future livelihood needs. Alternative food and income sources, however, need to take into account local realities, cultures and preferences and should be developed and implemented with local communities or support community-based income projects. Mitigative measures (farming, ranching, captive breeding, etc.) may play a role in conserving wildlife resources.

8. *Capacity-building, training, education and awareness-raising:* To achieve conservation and sustainable use of wildlife resources, sufficient capacity-building and public awareness-raising activities targeting relevant audiences need to be implemented and where possible institutionalized at international, national and local levels across a range of themes, including:

- (a) Governance and law enforcement including customary laws;

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<sup>4</sup> Including Poverty Reduction Strategy Papers (PRSP), forest management plans, national biodiversity strategies and action plans (NBSAP), national forest programmes (NFP), Nationally Appropriate Mitigation Actions (NAMAs), national adaptation programmes of action (NAPA), plans related to reducing emissions from deforestation and forest degradation (REDD-plus), national bushmeat action plans, national wildlife management plans and regulations, species-specific national management and conservation plans.

- (b) Wildlife monitoring and management, including non-detriment findings;
- (c) Monitoring and management of bushmeat harvest and trade;
- (d) The role of indigenous and local communities;
- (e) The impacts of unsustainable bushmeat harvesting and trade on indigenous and local communities and their livelihoods;
- (f) Livelihood alternatives; and
- (g) Collaboration across government, private and public sectors, educational training institutions and indigenous and local communities.

9. *Health and epidemiology:* (a) Where wildlife hunting and bushmeat trade is regulated, a national strategy for disease surveillance including those transmitted by wildlife should be implemented. Appropriate public health information and capacity-building should emphasize prevention of disease and protection of both human and animal health. Furthermore, wildlife, domestic livestock and human health need to be monitored and legislation, regulations, and enforcement need to be developed and implemented to reduce the threat of epizootics from newly emerging infections in an environmentally friendly manner; (b) in regions with bushmeat trade, sanitary control and biosecurity measures are necessary to prevent the sale of tainted meat or contaminated animal products that may lead to the spread of harmful pathogens.

10. *Climate change:* REDD-plus<sup>5</sup> programme development at a national level including biodiversity safeguards should take into account the importance of wildlife for maintaining healthy ecosystems and ecological services, and for the permanence of forest carbon stocks and forest adaptation capacity.

11. *Special management areas:* Where they do not already exist, specific areas for wildlife management should be designated at national and local levels, with the full and effective participation of indigenous peoples and in full respect of their rights (in line with decision VII/28<sup>6</sup> of the Conference of the Parties to the Convention on Biological Diversity and the programme of work on protected areas, in particular programme element 2 on governance, participation, equity and benefit-sharing), similar to permanent forest estates designated to manage timber resources. These may span existing protected area systems and multi-use landscapes (e.g., game-management areas or districts).

12. *Law enforcement:*

- (a) Strengthen investigative capacity, enhance control, inspection and arresting procedures and methods, including domestically and at border-crossing points;
- (b) Improve knowledge and capacity of prosecutors and judges to prosecute and sentence illegal bushmeat harvest and trade cases, ensure that sentences are served in full and publicize arrests, prosecutions and sentences;
- (c) Enhance cooperation and coordination among wildlife trade enforcement officers and officials, prosecutors and judges and other relevant personnel in the implementation of the respective law;
- (d) Assure that citizens, including indigenous and local communities, are aware of national, regional and local laws.

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<sup>5</sup> With reference to decision 1/CP.16 of the United Nations Framework Convention on Climate Change (UNFCCC), REDD-plus comprises reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

<sup>6</sup> Decision VII/28, paragraph 22: “Recalls the obligations of Parties towards indigenous and local communities in accordance with Article 8(j) and related provisions and notes that the establishment, management and monitoring of protected areas should take place with the full and effective participation of, and full respect for the rights of, indigenous and local communities consistent with national law and applicable international obligations.”

13. *National strategies and action plans to address bushmeat:* (a) support and strengthen national political will to plan and take action on key bushmeat and existing conservation commitments; (b) Governments should develop or strengthen participatory and cross-sectoral processes in formulating and implementing the sustainable management and harvesting of wildlife.

## II. INTERNATIONAL LEVEL

14. *National, regional and international strategies to address bushmeat:* Such strategies could include:

(a) Supporting and strengthening national political will to take action on key bushmeat and existing conservation commitments at a transboundary and regional level;

(b) Supporting, strengthening and monitoring the implementation of existing international commitments and agreements and encouraging new ones concerning the conservation and sustainable use of transboundary and shared wildlife resources;

(c) International partners should seek to effectively integrate wildlife-conservation strategies into relevant development assistance such as poverty-reduction strategies;

(d) Parties are encouraged to create regional or subregional bushmeat working groups in cooperation with relevant regional bodies to be technically supported by the Secretariat.

15. *Participatory processes:* The international community should support national Governments to develop or strengthen participatory and cross-sectoral processes in formulating and implementing the sustainable management and harvesting of bushmeat species, in particular participation of indigenous and local communities, and the private sector.

16. *Impacts of international trade in natural resources.* International policy processes and institutions concerning trade and development should take steps to better assess, communicate, and mitigate impacts of extraction and trade in natural resources (e.g., timber, minerals, oil) on wildlife, wildlife-dependent communities, and resulting bushmeat demands to ensure that all international trade is based on sustainable principles.

17. *International trade in bushmeat.* Concerned with the potential threat that a growing international trade in bushmeat may have on wild populations and wildlife-dependent communities, the international community should take action to discourage trade in illegally harvested bushmeat, including through the close monitoring of such trade. The international community should provide the means to implement such actions and communicate law-enforcement successes. Close cooperation between Parties, including with regard to law enforcement, and between the Convention on Biological Diversity (CBD) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) on this topic is required.

18. *International policy environment:* In order to optimize the sustainability of hunting, the international community should support integrated local, national, and transboundary action to build partnerships among relevant organizations and institutions to:

(a) Build enforcement and monitoring capacity;

(b) Develop and implement protein and income alternatives;

(c) Increase awareness and education regarding bushmeat hunting and trade;

(d) Increase collaboration between the relevant conventions: the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on Migratory Species (CMS), the World Health Organisation (WHO), the World Organization for Animal Health (OIE), and other relevant organizations.

These actions taken together have the potential to support communities to sustainably manage their wildlife resource and reduce the demand for bushmeat.

19. *Science:* Research should assure to include and integrate ecology, health, development, economics and social science to inform future policy.

20. *Incentives:* The international community should ensure that financial mechanisms and payments for ecosystem services such as REDD-plus take into account the importance of ecosystem functioning and the role of forest fauna in forest health and resilience, including the well-being of forest-dependent indigenous and local communities.

21. *Forest certification:* Forest certification schemes and standards should take into account the role of conservation and sustainable use of wildlife in maintaining healthy forest ecosystems, as well as the well-being of forest-dependent indigenous and local communities.

## *XV/7. Arctic biodiversity*

### *The Subsidiary Body on Scientific Technical and Technological Advice*

1. *Welcomes* the report on Arctic biodiversity prepared by the Conservation of Arctic Flora and Fauna Working Group of the Arctic Council for the consideration of the fifteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/15/14);

2. *Requests* the Executive Secretary to include in documentation on ecologically or biologically significant areas in marine areas being prepared for the sixteenth meeting of the Subsidiary Body on Scientific Technical and Technological Advice reference to the work carried out under the OSPAR Convention and by the North East Atlantic Fisheries Commission on this subject;

3. *Recommends* that the Conference of the Parties at its eleventh meeting adopts a decision along the following lines:

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

*Recalling* the Resolution of Cooperation between the Convention on Biological Diversity and the Conservation of Arctic Flora and Fauna Working Group of the Arctic Council, *encourages* the continued collaboration between the Convention on Biological Diversity and the Working Group, including with regard to monitoring and assessments of status and trends as well as stressors to biodiversity;

1. *Welcomes* the report on Arctic biodiversity prepared by the Conservation of Arctic Flora and Fauna Working Group of the Arctic Council for the fifteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/15/14) and *notes* in particular its key findings;

2. Notes that:

(a) The Arctic plays host to a vast array of biodiversity, including many globally significant populations of fauna and flora;

(b) A significant proportion of Arctic species are migratory; such populations are thus shared by numerous non-Arctic Parties and other Governments whose cooperation is needed for their conservation;

(c) Arctic ecosystems provide essential services including for the livelihoods of indigenous and local communities;

(d) Climate change is emerging as the most far-reaching and significant stressor on Arctic biodiversity;

(e) Changes in Arctic biodiversity have global repercussions, since Arctic ecosystem processes play a key role in the physical, chemical and biological balance of the planet;

(f) The conservation and sustainable use of Arctic biodiversity contributes to the implementation of the Strategic Plan for Biodiversity 2011-2020;

3. *Invites* relevant non-Arctic Parties, other Governments, international organizations and multilateral environmental agreements and processes, which either play host to migratory Arctic species for part of their life-history and/or which collate information about the status of such species, to collaborate with the Conservation of Arctic Flora and Fauna Working Group of the Arctic Council by, *inter alia* contributing to the Circumpolar Biodiversity Monitoring Programme within its available capacity, and with relevant multilateral environmental agreements concerned with the conservation of migratory Arctic species, and to share their data on monitoring and/or assessment of such species;

4. *Welcomes* progress in the implementation of the Conservation of Arctic Flora and Fauna Working Group of the Arctic Council Circumpolar Biodiversity Monitoring Programme, including on the more rapid detection and communication of significant biodiversity-related trends and pressures affecting the Arctic environment;

5. *Encourages* the development of further Arctic ecosystem resilience assessments and reports;
6. *Welcomes* the work carried out by the working groups of the Arctic Council on the identification of ecologically and biologically significant areas in the Arctic, and *encourages* them to continue this work in cooperation with adjacent regional conventions and commissions including the OSPAR Convention and the North East Atlantic Fisheries Commission;
7. *Encourages* the Arctic Council working groups to progress in the work of identifying Arctic areas of high ecological and cultural significance;
8. *Urges* Parties and *invites* other Governments and relevant organizations, as appropriate, to promote the implementation of the Strategic Plan for Biodiversity 2011-2020 and relevant programmes of work of the Convention in relation to the Arctic environment;
9. *Invites* Parties and other Governments to make available through their national clearing-house mechanisms, as appropriate, data and information generated through research and monitoring activities in the Arctic, including those contributing to the Circumpolar Biodiversity Monitoring Programme, the Arctic Biodiversity Assessment and other relevant Arctic Council assessments, and to make full use of it in their reports under the Convention on Biological Diversity and other conventions, where relevant;
10. *Requests* the Executive Secretary to make Parties aware of biodiversity- related information and reports generated by the Arctic Council, including from the Circumpolar Biodiversity Monitoring Programme, the Arctic Biodiversity Assessment and the other relevant Arctic Council assessments;
11. *Requests* the Executive Secretary to make use of data and information generated by the Arctic Council as appropriate, *inter alia*, in the preparation of future editions of Global Biodiversity Outlook;
12. *Appreciating* the collaboration of the Arctic Council with indigenous peoples of the Arctic, *encourages* Parties and *invites* other Governments and relevant organizations to have full and effective participation with indigenous and local communities in research projects and programmes regarding Arctic biodiversity.

**XV/8. Ways and means to improve the effectiveness of the Subsidiary Body on Scientific, Technical and Technological Advice**

*The Subsidiary Body on Scientific, Technical and Technological Advice*

1. *Requests* the Executive Secretary, in collaboration with the relevant academic and scientific institutions, to prepare scientific reports and papers in response to decision VIII/10, annex III, appendix B, paragraph 1 (ii);
2. *Also requests* the Executive Secretary and *encourages* host countries, host institutions and donors, when preparing meetings of ad hoc technical expert groups on particularly complex and wide-ranging issues, to consider whether to hold such meetings separately or in conjunction with larger expert meetings, including relevant meetings already being planned, and to develop associated guidance;
3. *Recalling* decision X/11, *also requests* the Executive Secretary in collaboration with the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice and the COP Bureau to identify issues, modalities and options for collaboration with the intergovernmental science-policy platform for biodiversity and ecosystem services (IPBES), taking into consideration the views presented at the fifteenth meeting of the Subsidiary Body, and to prepare a report for consideration by the Subsidiary Body at its sixteenth meeting;
4. *Encourages* the participation of the Chair of the Subsidiary Body at future IPBES meetings and related events;
5. *Recommends* that the Conference of the Parties:
  - (a) *Request* SBSTTA to continue implementing decision VIII/10 and X/12 and focus its work on the scientific and technical aspects of the Strategic Plan for Biodiversity 2011-2020 and the multi-year programme of work, as a means to improve its effectiveness and to report on its work to each future meeting of the Conference of the Parties;
  - (b) *Recall* its decision X/13 regarding the established procedure to include new and emerging issues into the agenda of SBSTTA;
  - (c) *Note* the role of the peer-review process for SBSTTA documents in mobilizing scientific communities and strengthening SBSTTA document quality;
  - (d) *Recognize* the role of regional, subregional and national centres with scientific expertise relevant to the implementation of the objectives of the Convention on Biological Diversity;
  - (e) *Invite* Parties, other Governments, and relevant organizations to provide additional resources for the translation of scientific and technical documents, including CBD Technical Series and executive summaries of information documents prepared for meetings of the Subsidiary Body on Scientific, Technical and Technological Advice in the official languages of the United Nations;
  - (f) *Invite* Parties and relevant organizations to facilitate side-events and roundtables, including on new and emerging issues, so as to provide relevant, balanced and best available scientific and technical evidence and/or information for consideration by SBSTTA focal points at the meetings of the Subsidiary Body;
  - (g) *Further invite* Parties and relevant organizations to support the elaboration of the reference manual for guidance to SBSTTA focal points, Bureau members and delegates referred to in decision X/12, paragraph 4, including translation into United Nations official languages;
  - (h) *Welcome* the contribution from the Consortium of Scientific Partners in providing scientific and technical support to SBSTTA including with regards to the activities referred to in this recommendation;

(i) *Invite* the Consortium of Scientific Partners and other organizations such as IUCN and its commissions to support implementation of activities mentioned in subparagraphs (f) and (g) above;

(j) *Noting* the report on progress and suggestions for further actions in response to decision X/12 (UNEP/CBD/SBSTTA/15/15, table 2), *requests* the Executive Secretary, subject to the availability of resources, to:

- (i) Make available web-based tools and training in their use to focal points of the Subsidiary Body on Scientific, Technical and Technological Advice and other CBD focal points in order to facilitate regional consultations;
- (ii) Develop training programmes for focal points to the Subsidiary Body on Scientific, Technical and Technological Advice taking into consideration the assessment of needs as compiled by the Executive Secretary through notification 2011-104 and the capacity needs assessment of the Global Strategy for Plant Conservation Liaison Group;
- (iii) Prepare background documents, whenever feasible, to accompany notifications to SBSTTA focal points requesting input and information;
- (iv) Continue to include, in each pre-session document prepared for SBSTTA, a list of relevant elements of the Strategic Plan;
- (v) Continue to explore options for closer collaboration between the relevant bureaus among the biodiversity related conventions through the Liaison Group of Biodiversity-Related Conventions (BLG) and the Chairs of the Scientific Advisory Bodies of the Biodiversity-Related Conventions (CSAB);
- (vi) Provide information notes on relevant items on the agenda of the Subsidiary Body to the chairs of the subsidiary bodies of the other biodiversity-related multilateral conventions and attend meetings of those bodies when feasible;
- (vii) Maintain through the Convention's website a table with an updated list of requests from the Conference of the Parties to the Subsidiary Body on Scientific, Technical and Technological Advice and links to relevant sections of the Convention website and to circulate such an updated list to the Bureau of the Subsidiary Body prior to each meeting for its consideration and guidance.

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