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TECHNICAL AND TECHNOLOGICAL  
ADVICE

Nineteenth meeting  
Montreal, Canada, 2–5 November 2015

CONFERENCE OF THE PARTIES TO THE  
CONVENTION ON BIOLOGICAL  
DIVERSITY

Thirteenth meeting  
Cancun, Mexico, 4-17 December 2016

**REPORT OF THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND  
TECHNOLOGICAL ADVICE ON ITS NINETEENTH MEETING**

The Subsidiary Body on Scientific, Technical and Technological Advice held its nineteenth meeting in Montreal, Canada, from 2 to 5 November 2015. It adopted eight recommendations concerning: (a) further consideration of the implications of the findings of the fourth edition of the Global Biodiversity Outlook and related reports, including with respect to mainstreaming of biodiversity across sectors; (b) key scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020 and related research; (c) tools to evaluate the effectiveness of policy instruments for the implementation of the Strategic Plan for Biodiversity 2011-2020; (d) indicators for the Strategic Plan for Biodiversity 2011-2020 (e) work of the Subsidiary Body on Scientific, Technical and Technological advice in the light of the 2014-2018 Work Programme of the Intergovernmental Science Policy Platform for Biodiversity and Ecosystem Services and relationship with the Subsidiary Body on Implementation (f) biodiversity and human health; (g) climate-related geoengineering and (h) forest biodiversity: role of international organizations in supporting the achievement of the Aichi Biodiversity Targets. These are provided in section I of the report. The draft decisions contained within the recommendations will be submitted to the Conference of the Parties to the Convention on Biological Diversity for consideration at its thirteenth meeting.

The accounts of the proceedings of the meeting are provided in section II of the report.

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

**XIX/1. Further consideration of the implications of the findings of the fourth edition of the Global Biodiversity Outlook and related reports, including with respect to mainstreaming of biodiversity across sectors**

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

*Emphasizing* the importance of the integration of biodiversity into the agriculture, forests and fisheries, as well as other relevant sectors, including industry, tourism, health, planning, trade and finance, infrastructure, mining, energy, and into climate change adaptation and mitigation measures,

*Recalling* decision XII/2 C, in which Parties were invited to work with all relevant stakeholders, including through the United Nations Decade on Biodiversity, in the achievement of Aichi Biodiversity Target 1,

1. *Takes note* of the information contained in the note by the Executive Secretary on further consideration of the implications of the findings of the fourth edition of the *Global Biodiversity Outlook* and related reports, including with respect to mainstreaming and the integration of biodiversity across sectors;<sup>1</sup>

2. *Recalling* decision XII/1 on the mid-term review of progress in the implementation of the Strategic Plan for Biodiversity 2011–2020 including the fourth edition of the *Global Biodiversity Outlook*, and actions to enhance implementation, in which the Conference of the Parties emphasized the need for enhanced efforts to achieve the Aichi Biodiversity Targets, in particular for those targets where least progress has been made, and *emphasizes* the need to strengthen implementation, including through technical and scientific cooperation, capacity-building support and an overall substantial increase in total biodiversity funding for the implementation of the Strategic Plan for Biodiversity 2011-2020;

3. *Recalling* decision IX/8 and paragraph 14 of the Strategic Plan for Biodiversity 2011-2020, *highlights* the importance of national biodiversity strategies and action plans, as well as other national planning instruments, as tools for mainstreaming biodiversity across all sectors of government and society and engaging all relevant stakeholders;

4. *Welcomes* the initiative by Mexico, as host country for the thirteenth meeting of the Conference of the Parties, to organize, in cooperation with the Executive Secretary and with the support of Switzerland, an international expert workshop on biodiversity mainstreaming in November 2015;

5. *Expresses its appreciation* to the Food and Agriculture Organization of the United Nations for its inputs into relevant considerations and in particular for preparing the information note on the contribution of FAO's five principles for sustainable agriculture to the implementation of Aichi Biodiversity Target 7;<sup>2</sup>

6. *Encourages* Parties to make use of existing tools and, recalling paragraph 13 of decision XI/2, to promote open data access to support the mainstreaming of biodiversity into policies and planning;

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<sup>1</sup> UNEP/CBD/SBSTTA/19/2.

<sup>2</sup> UNEP/CBD/SBSTTA/INF/4/Rev.1.

7. *Requests* the Executive Secretary, subject to the availability of resources:

(a) To make use, as appropriate, of the information contained in the note by the Executive Secretary<sup>1</sup> and related information in preparing for relevant agenda items for the first meeting of the Subsidiary Body on Implementation and the twentieth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice;

(b) To arrange for the peer review of information documents UNEP/CBD/SBSTTA/19/INF/1, UNEP/CBD/SBSTTA/19/INF/4/Rev.1, UNEP/CBD/SBSTTA/19/INF/6, UNEP/CBD/SBSTTA/19/INF/15, UNEP/CBD/SBSTTA/19/INF/17, to revise them in collaboration with the Food and Agriculture Organization of the United Nations and other relevant organizations, taking into consideration relevant information on indigenous peoples and local communities, including experiences with the implementation of the Plan of Action on Customary Sustainable Use of Biological Diversity<sup>3</sup> and relevant outcomes of the ninth meeting of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions, and to make them available to the Subsidiary Body on Scientific, Technical and Technological Advice at its twentieth meeting and to the Subsidiary Body on Implementation at its first meeting;

(c) To make use of the outcomes of the international expert workshop on biodiversity mainstreaming hosted by Mexico when preparing documentation on mainstreaming for the Subsidiary Body on Scientific, Technical and Technological Advice at its twentieth meeting and to the Subsidiary Body on Implementation at its first meeting;

(d) To consult the Food and Agriculture Organization of the United Nations, the World Tourism Organization, and other relevant organizations, in preparation for the thirteenth meeting of the Conference of the Parties;

(e) To prepare guidelines and compile best practices for how stakeholders can be more engaged to promote the integration of biodiversity across sectors, for consideration by the Subsidiary Body on Implementation at its first meeting;

8. *Also requests* the Executive Secretary, in preparing for agenda item 10 of the twentieth meeting of the Subsidiary Body, to prepare, in consultation with relevant organizations and stakeholders, including the secretariats of relevant conventions, key elements for a short-term action plan on ecosystem restoration, with a view to the submission of a recommendation from the Subsidiary Body to the Conference of the Parties at its thirteenth meeting;

9. *Noting* that additional guidance on relevant topics may emerge from the actions undertaken in response to the present recommendation and from further considerations by the Subsidiary Body on Scientific, Technical and Technological Advice at its twentieth meeting and the Subsidiary Body on Implementation at its first meeting, *recommends* that the Conference of the Parties at its thirteenth meeting, among other things:

(a) *Welcome* the 2030 Agenda for Sustainable Development<sup>4</sup> and *note* that it provides a useful enabling framework for the implementation of the Strategic Plan for Biodiversity 2011-2020 and for the mainstreaming of biodiversity, and also *welcome* the Sendai Framework for Disaster Risk Reduction 2015-2030,<sup>5</sup> and other relevant frameworks;

(b) *Invite* Parties to develop coherent and comprehensive policy frameworks that integrate biodiversity across sectors and to share their experiences, best practices and case studies in this regard through appropriate means, such as the clearing-house mechanism;

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<sup>3</sup> Decision XII/12 B, annex.

<sup>4</sup> United Nations General Assembly resolution 70/1 of 25 September 2015 entitled “Transforming our world: the 2030 Agenda for Sustainable Development”.

<sup>5</sup> United Nations General Assembly resolution 69/283, annex II.

- (c) *Encourage* Parties to engage in networking activities among different actors involved in relevant productive sectors, including the private and public sectors, in order to further mainstream biodiversity across relevant sectors;
- (d) *Request* the Executive Secretary, subject to the availability of resources:
- (i) In collaboration with the Food and Agriculture Organization of the United Nations, the World Tourism Organization, and other relevant organizations, to support Parties in sharing experiences, best practices and case studies on mainstreaming biodiversity into sectors and in developing comprehensive policy guidance;
  - (ii) To engage in relevant dialogues under the United Nations High-level Political Forum on Sustainable Development under the auspices of the United Nations Economic and Social Council;
  - (iii) To continue to engage with indigenous peoples and local communities in the preparation of any communication products related to the *Global Biodiversity Outlook* which aim to demonstrate the contribution of indigenous peoples and local communities to the achievement of the Aichi Biodiversity Targets with a view to ensuring that the visions, practices and knowledge of indigenous peoples and local communities are fully taken into account;
  - (iv) To present options to the Subsidiary Body at a meeting prior to the fourteenth meeting of the Conference of the Parties on how to make the best use of existing programmes of work to further enhance the implementation of the Convention in the light of mainstreaming needs and the Strategic Plan for Biodiversity 2011-2020.

**XIX/2. Key scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020 and related research**

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

*Recalling its recommendation XVII/1,*

1. *Takes note* of the information provided in the note by the Executive Secretary;<sup>6</sup>
2. *Notes* that some of the issues, such as training and work on technical and scientific cooperation and technology transfer, addressed in the note by the Executive Secretary<sup>6</sup> may also be taken up by the Subsidiary Body on Implementation at its first meeting;
3. *Welcomes* the establishment of the Future Earth programme, *invites* its Science Committee, when developing and implementing its research agenda, to take into account the Strategic Plan for Biodiversity 2011-2020, and *requests* the Executive Secretary to collaborate with the Future Earth Secretariat, as appropriate, and taking into account the principles and provisions of the Convention;
4. *Recommends* that the Conference of the Parties at its thirteenth meeting, while recalling the key scientific and technical needs identified by the Subsidiary Body in recommendation XVII/1 and paragraphs 14 to 16 of decision XII/1 of the Conference of the Parties:
  - (a) *Welcome* the ongoing efforts of partner organizations to support Parties in addressing the scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020;
  - (b) *Also welcome* the collaboration of Parties with relevant organizations to strengthen biodiversity monitoring systems;
  - (c) *Further welcome* the *Global Biodiversity Informatics Outlook*, and, recalling paragraph 3 of decision VIII/11, paragraph 13 of decision XI/2, and Action 6 of the capacity-building strategy for the Global Taxonomy Initiative (annex to decision XI/29), *invite* Parties and relevant organizations to further promote open access to biodiversity-related data and transparency in the development of derived metrics and, to this end, to consider, as appropriate, the voluntary guidance annexed to the present recommendation;
  - (d) *Request* the Executive Secretary:
    - (i) To continue collaboration with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the United Nations Environment Programme and other partners to promote the coordinated development of existing portals to facilitate access to policy support tools and methodologies, as well as to related case studies and evaluations of the use and effectiveness of such tools, taking into account the different capacities and capabilities of countries;
    - (ii) To collaborate with relevant organizations for compiling information on tools to support the implementation of the Strategic Plan for Biodiversity 2011-2020, including those areas in which gaps have been identified, in particular methods to assess motives for and barriers to behavioural change, social marketing strategies, engagement techniques and participatory processes and mechanisms to promote the development of social, moral and economic incentives, taking into account cultural and socioeconomic differences among countries and regions, for people to sustainably manage biodiversity and ecosystem services;

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<sup>6</sup> UNEP/CBD/SBSTTA/19/3.

- (iii) To invite Parties, especially developing countries, to provide information on their priorities and needs related to the implementation of Article 12 of the Convention and to compile this information to inform future work under the Convention;
- (iv) To develop, through the Liaison Group of Biodiversity-related Conventions and in collaboration with other relevant organizations, actions for an enhanced collaborative framework to guide the work of the conventions and their partners and to assist Parties in meeting Aichi Biodiversity Target 12, and to submit the actions to the Subsidiary Body at a meeting prior to the fourteenth meeting of the Conference of the Parties;
- (v) To report on the above to the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting prior to the fourteenth meeting of the Conference of the Parties to the Convention on Biological Diversity;

5. *Encourages* Parties:

- (a) To further work to identify their biodiversity monitoring, assessment, project implementation, and research needs at the national level;
- (b) To strengthen in-country efforts to link science and policy, including through increased and enhanced communication between data providers and users, including decision makers, to improve decision-making;
- (c) To make full use of the clearing-house mechanism to share information, particularly, with regard to paragraph 4 of the voluntary guidance to improve the accessibility of biodiversity-related data and information;
- (d) To provide support for biodiversity monitoring, assessment, project implementation, and research;
- (e) To increase national, regional and global efforts related to the promotion of research programmes related to the objectives of the Convention, taking into account Article 12 of the Convention and Aichi Biodiversity Target 19;
- (f) To increase awareness of Global Taxonomy Initiative and to implement its Capacity Building Strategy (decision XI/29);
- (g) To support the development, with the assistance, as appropriate, of the international barcode of life network, of DNA sequence-based technology (DNA barcoding) and associated DNA barcode reference libraries for priority taxonomic groups of organisms, to promote the application of these techniques for the conservation and sustainable use of biodiversity, and to support related capacity-building activities, including relevant academic training, as appropriate, further to the Strategic Actions 3 and 4 of the capacity-building strategy for the Global Taxonomy Initiative;
- (h) To continue to promote awareness about the role of traditional knowledge systems and the collective actions of indigenous peoples and local communities to complement the scientific knowledge in support of the effective implementation of the Strategic Plan for Biodiversity 2011-2020;
- (i) To take into consideration the important work undertaken by indigenous peoples and local communities related to taxonomy.

*Annex*

**VOLUNTARY GUIDANCE TO IMPROVE THE ACCESSIBILITY OF  
BIODIVERSITY-RELATED DATA AND INFORMATION**

1. **Promote open data access through policy incentives.** Reluctance to share scientific data from research remains a significant cultural barrier to biodiversity data access. Government regulation and



incentives can stimulate an open access culture by, for example, requiring publication of all data acquired through publicly-funded research projects, using an open data licence to enable reuse with as few restrictions as possible.

2. **Promote the use of common data standards.** Biodiversity data are truly accessible only if they are expressed using commonly accepted information standards, enabling the integration and discovery of data sets from many different types of biodiversity evidence – including, for example, specimens from natural history collections, field observations and remote-sensed data. Governments can take the lead by insisting that all biodiversity data from public monitoring and research programmes use standards endorsed by such bodies as Biodiversity Information Standards ([www.tdwg.org](http://www.tdwg.org)).

3. **Invest in the digitization of natural history collections.** Natural history museums and herbaria contain a wealth of information documenting biodiversity from the earliest days of exploration of the natural world to recent collection activities. While millions of specimens are already digitized and accessible to researchers via the Internet, many collections remain undigitized or only partially accessible electronically. Investment in digitization, using public funds or leveraging donations from the private sector or charitable foundations, will yield returns by reducing the time needed for researchers to access data and information from dispersed institutions.

4. **Establish national biodiversity information facilities.** Effective access to biodiversity data and information requires national coordination to promote and facilitate the sharing of data by diverse stakeholders, using appropriate standards and best practices on such issues as data quality. This may be most effectively achieved through a mandate to an appropriate national institution to coordinate such activity among biodiversity data holders and users in the country. An inclusive governance structure for such “biodiversity information facilities” will help achieve neutrality for the coordinating unit and overcome reluctance to share data among particular institutions. GBIF provides guidance on establishing such units based on its model of “participant nodes”.

5. **Enhance national capacity in biodiversity informatics.** Improved access to biodiversity data and information requires a base of professionals in relevant institutions familiar with the tools and best practices required to generate, manage, publish and use digital data. Governments can build and enhance such capacity by supporting training programmes and workshops operated by various national, regional and global networks, and by developing projects through funded capacity enhancement programmes operated by GBIF and other networks.

6. **Engage the public in biodiversity observation through citizen science networks.** Data derived from observations of the natural world by volunteer “citizen scientists” are becoming an increasingly important source of evidence for research and policy on biodiversity. Support for such initiatives, including processes to validate and curate the resulting data, and inclusion of volunteer networks in national biodiversity information facilities, helps both to increase public awareness of biodiversity (supporting Aichi Target 1) and to broaden the evidence base for research and decisions.

7. **Encourage data sharing from the private sector.** Biodiversity data generated in the course of environmental impact assessments (EIAs) are potentially valuable sources of evidence for reuse in research and subsequent development decisions. The primary (species-level) data underlying EIAs often remains hidden from view even when the consultant reports are published, and are rarely shared in formats that would make them accessible for future use. National and subnational regulators can help unlock such data by requiring developers to publish them using standard open data formats, as part of the planning approval process.

8. **Develop national platforms for data discovery, visualization and use.** For mobilized data to have maximum impact, Governments may wish to develop web platforms and means of data visualization that meet national needs and priorities. Data shared by institutions in a country can be “harvested” simultaneously by national, regional and global portals, while national portals can also “repatriate” data relating to the country’s biodiversity shared from overseas institutions. This can help to show the value of data sharing to national stakeholders and research users, as well as providing an educational platform for

citizens to understand more about their country's biodiversity. Collaborative networks on regional and global scales can help countries to identify and apply appropriate technologies to develop such platforms.

9. **Analyse data and information gaps to prioritize new data mobilization.** Improving access to biodiversity data and information is a cumulative process and will never mobilize all potential sources of evidence. Governments can prioritize investments in data mobilization activities by using emerging tools and methodologies to identify gaps, based on taxonomic, temporal and spatial coverage, or policy needs, such as thematic assessments on biodiversity and ecosystem services.

10. **Engage with and support regional and global networks for data mobilization and access.** The transnational nature of biodiversity and ecosystems makes it impossible for any one country to improve access to relevant biodiversity data and information without engaging with data-sharing initiatives on regional and global scales. Engagement with and investment in such networks bring common benefits that would not arise from purely national investments. On a global scale, continued support from Governments for networks such as GBIF, the Ocean Biogeographic Information System (OBIS) and Group on Earth Observations Biodiversity Observation Network (GEO-BON) will help these benefits to consolidate and grow for all Parties.

**XIX/3. Tools to evaluate the effectiveness of policy instruments for the implementation of the Strategic Plan for Biodiversity 2011-2020**

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

*Recalling* Article 25, paragraph 2(b), of the Convention,

*Emphasizing* the importance of evaluating the effectiveness of measures undertaken to implement the Strategic Plan for Biodiversity 2011-2020 to achieve continuous learning and improvement of implementation efforts towards the full implementation of the Strategic Plan and the achievement of the Aichi Biodiversity Targets by 2020,

*Acknowledging* that the regional and global assessments of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) are expected to include information on and analysis of the effectiveness of policy instruments and measures to implement the Strategic Plan for Biodiversity 2011-2020 and *noting*, in this regard, the need to avoid duplication of work,

*Noting* that the Subsidiary Body on Implementation may also consider ways to improve the review of implementation of the Convention,

*Recommends* that the Conference of the Parties at its thirteenth meeting:

(a) Encourage Parties to undertake evaluations of the effectiveness of measures undertaken to implement the Strategic Plan for Biodiversity 2011-2020, to document this experience, including the methodologies applied, to identify lessons learned, and to provide this information to the Executive Secretary, including through their sixth national report;

(b) Request the Executive Secretary, subject to availability of resources, to compile and analyse this information provided by Parties and make it available for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice and the Subsidiary Body on Implementation as appropriate.

#### **XIX/4. Indicators for the Strategic Plan for Biodiversity 2011-2020**

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

*Recalling* decision XI/3 and paragraph 20(b) of decision XII/1,

1. *Welcomes* the report of the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020<sup>7</sup> and thanks the European Union and the Governments of Switzerland and the United Kingdom of Great Britain and Northern Ireland for their financial support;
2. *Takes note* of the proposed list of generic and specific indicators for the Strategic Plan for Biodiversity 2011-2020 identified by the Ad Hoc Technical Expert Group and contained in the annex to the report of its meeting;<sup>7</sup>
3. *Notes* that indicators may be used for a variety of purposes at the national, regional and global levels, including:
  - (a) Informing and supporting decision-making;
  - (b) Communicating with policymakers and other stakeholders, including those unfamiliar with the Strategic Plan;
  - (c) Mainstreaming the Aichi Biodiversity Targets within other international processes, including, in particular, the Sustainable Development Goals, by facilitating the integration of biodiversity in other processes through shared indicators or (dis/aggregated) elements of indicators;
  - (d) Reporting by Parties;
  - (e) Enabling the Conference of the Parties and its subsidiary bodies to review progress in the implementation of the Strategic Plan for Biodiversity 2011-2020;
  - (f) Providing a knowledge base for developing future plans and targets under the Convention on Biological Diversity and other multilateral environmental agreements;
4. *Notes* that the list of global indicators for the Strategic Plan will be kept under review, enabling, inter alia, the future incorporation of other relevant indicators, including those developed in the context of the Sustainable Development Goals and other Conventions and processes;
5. *Also notes* that the list of global indicators will provide (a) a framework to assess progress towards the Aichi Biodiversity Targets and (b) a flexible framework for Parties to adapt to their national priorities and circumstances, bearing in mind that Parties have different approaches to monitoring the implementation of the Strategic Plan for Biodiversity 2011-2020;
6. *Further notes* that many indicators rely on a small number of essential biodiversity variables and that further efforts are required to improve the monitoring of these variables;
7. *Welcomes* the important contributions to indicator development by the members of the Biodiversity Indicators Partnership and other relevant organizations and processes, as well as initiatives on community-based monitoring and information systems, and *encourages* further collaboration and continued support for work on indicators, taking into account, as appropriate, the outcomes of the meeting of the Ad Hoc Technical Expert Group and its further considerations;
8. *Invites* the Biodiversity Indicators Partnership to develop technical guidance on the indicators for which such guidance has not already been developed, including a description of the indicator methodology, underlying data sets, relevance and feasibility of use at the national level, to make this guidance available, and to facilitate access to this information through the clearing house-mechanism;

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<sup>7</sup> UNEP/CBD/SBSTTA/19/INF/5.

9. *Invites* those institutions that compile global indicators to promote the free and open access to underlying data and methodologies and to facilitate national disaggregation of underlying data, and methodologies, where appropriate, taking into account the voluntary guidance to improve the accessibility of biodiversity-related data and information (annex to recommendation XIX/2);

10. *Requests* the Executive Secretary:

1. To continue to collaborate with (i) the Inter-agency and Expert Group on the Sustainable Development Goals indicators under the United Nations Statistical Commission, in order to reflect the multiple links between the Strategic Plan for Biodiversity 2011-2020 and its Aichi Targets, and the Sustainable Development Goals; (ii) the United Nations Convention to Combat Desertification (UNCCD) on the further operationalization of the three land-based progress indicators (trends in land cover, trends in land productivity or functioning of the land, and trends in carbon stock above and below ground) set out in UNCCD decision XX/COP.12;<sup>8</sup> (iii) the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES); (iv) the other biodiversity-related conventions and the United Nations Framework Convention on Climate Change; and (v) the International Indigenous Forum on Biodiversity Working Group on Indicators, in order to promote synergies regarding assessments of the Aichi Biodiversity Targets;

2. To facilitate peer review, inter alia, by the focal points of the Convention and its Protocols, the secretariats of the biodiversity-related conventions and members of the Biodiversity Indicators Partnership, of the proposed list of global indicators, including information on the source of the indicator and its underlying data, using the following criteria: availability of the indicator; its use in the *Global Biodiversity Outlook*; its suitability for communication; possibility for aggregation or disaggregation of data used;

3. To update and revise the proposed list of global indicators for the Strategic Plan for Biodiversity 2011-2020 in the light of the peer review and any comments made during the nineteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice and taking into account the outcomes of the forty-seventh session the United Nations Statistical Commission and submit the results to the Subsidiary Body on Scientific, Technical and Technological Advice at its twentieth meeting with a view to preparing a recommendation for consideration by the Conference of the Parties at its thirteenth meeting;

4. To develop guidance on the use of national indicators and approaches to monitor progress towards the Aichi Biodiversity Targets, in collaboration with the Biodiversity Indicators Partnership, drawing upon, as appropriate, the report of the Ad Hoc Technical Expert Group and the documentation prepared for it, and to make this information available through the clearing house-mechanism.

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<sup>8</sup> Decision number to be added, based on ICCD/COP(12)/L.1, entitled "[Leveraging of synergies among the Rio conventions and promoting partnerships with other international agencies and bodies](#)".

**XIX/5. Work of the Subsidiary Body on Scientific, Technical and Technological advice in the light of the 2014-2018 Work Programme of the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services and relationship with the Subsidiary Body on Implementation**

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

*Recalling* the intention as outlined in the multi-year programme of work of the Conference of the Parties to 2020<sup>9</sup> to undertake a final assessment of the implementation of the Strategic Plan for Biodiversity 2011-2020 and achievement of the Aichi Biodiversity Targets to inform the discussion on the follow-up to the Strategic Plan for Biodiversity 2011- 2020,

*Acknowledging* that the deliverables of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, in particular its methodological, thematic, regional and global assessments are expected to contribute to this final assessment,

1. *Emphasizes* the importance of the timely delivery of the Platform's assessments in order to maximize their contribution to the work under the Convention;

2. *Welcomes* the close collaboration between the Secretariats of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and the Convention with regard to facilitating the implementation of the 2014-2018 work programme of the Platform and the work under the Convention in a coherent and efficient manner;

3. *Requests* the Executive Secretary, when developing a proposal on guidelines for the sixth national report as requested by the Conference of the Parties in its decision XII/1, paragraph 9(a), for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at its twentieth meeting and the Subsidiary Body on Implementation at its first meeting:

(a) To take into account the lessons learned from the fourth and fifth national reports;

(b) To take into account the technical considerations on the timing, form and content of the sixth national report as contained in paragraphs 47-51 of the note by the Executive Secretary;<sup>10</sup>

(c) To include in the proposal:

(i) An item on the experiences of Parties in the use of tools to evaluate the effectiveness of specific measures undertaken to implement the Strategic Plan for Biodiversity 2011-2020;

(ii) Consideration of mainstreaming of biodiversity concerns within and across sectors, including cross-cutting policy frameworks on biodiversity and evaluation of their effectiveness, best practices and lessons learned;

(d) To circulate a draft proposal for comments and take into account comments made by Parties and observers;

4. *Also requests* the Executive Secretary to facilitate the review and testing by Parties of the voluntary online tool that is being developed by the Executive Secretary for the sixth national reporting process, including by facilitating interoperability with national clearing-house mechanisms and report on progress to the Subsidiary Body on Implementation;

5. *Recommends* that the Conference of the Parties at its thirteenth meeting:

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<sup>9</sup> Decision XII/31.

<sup>10</sup> "Work of the Subsidiary Body on Scientific, Technical and Technological Advice in the light of the 2014-2018 work programme of the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services and relationship with the Subsidiary Body on Implementation" (UNEP/CBD/SBSTTA/19/9).

- (a) Initiate the preparation for a fifth edition of the *Global Biodiversity Outlook*, which:
- (i) Should provide:
    - a. A concise final report on the implementation of the Strategic Plan for Biodiversity 2011-2020;
    - b. A basis for the follow-up to the Strategic Plan for Biodiversity 2011-2020, to be considered by the Conference of the Parties at its fifteenth meeting;
  - (ii) Should include:
    - a. A target-by-target analysis of progress towards the achievement of the Aichi Biodiversity Targets, based on a transparent and replicable methodology;
    - b. An analysis of the contribution of progress towards the Aichi Biodiversity Targets to the Sustainable Development Goals;
  - (iii) Should draw upon:
    - a. The sixth national reports;
    - b. Information from global indicators;
    - c. The thematic, regional and global assessments of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and any relevant scenario analysis and modelling of biodiversity and ecosystem services undertaken as part of these assessments;
    - d. Information from the other biodiversity-related conventions and Rio conventions and other relevant organizations;
    - e. Information provided by indigenous peoples and local communities, including information on the contributions of collective actions to the implementation of the Strategic Plan for Biodiversity 2011-2020;
    - f. Additional relevant information presented by Parties;
  - (iv) Should be developed in a manner that avoids duplication with other processes;
- (b) Invite the secretariats of the Platform and the other biodiversity-related conventions to collaborate on a joint communication strategy for the fifth edition of the *Global Biodiversity Outlook* and relevant deliverables of the Platform;
- (c) Request the Executive Secretary to prepare:
- (i) A workplan and proposed budget for the preparation of the fifth edition of the *Global Biodiversity Outlook*;
  - (ii) A joint communication strategy with the secretariats of the Platform and biodiversity-related conventions on the fifth edition of the *Global Biodiversity Outlook* and relevant deliverables of the Platform;
- (d) Request the Subsidiary Body on Scientific, Technical and Technological Advice, in accordance with decision XII/25, paragraph 5(b), to prepare a list of requests for the second work programme of the Platform, based on information compiled by the Executive Secretary, for approval of the Conference of the Parties at its fourteenth meeting;

6. *Noting* the complementary roles of the Subsidiary Body on Scientific, Technical and Technological advice and the Subsidiary Body on Implementation, also noting that the Subsidiary Body on Implementation, at its first meeting, will consider its modus operandi, recognizes the opportunity that the establishment of the Subsidiary Body on Implementation presents to give new impetus to the review of progress on action taken in implementing the Convention, its Protocols and the Strategic Plan for Biodiversity 2011-2020, and to provide Parties with guidance to support their implementation.



### **XIX/6. Biodiversity and human health**

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

*Recalling* decision XII/21,

*Welcoming* the memorandum of understanding signed between the Secretariat of the Convention on Biological Diversity and the World Health Organization,

*Taking note* of the publication by the World Health Organization and the Secretariat of the Convention of *Connecting Global Priorities: Biodiversity and Human Health, a State of Knowledge Review*,

*Recognizing* that biodiversity and human health are interlinked in various ways, including the following:

(a) Biodiversity gives rise to benefits for human health, including directly as a source of foods, nutrition, traditional medicines and biomedical discovery, and indirectly as a source of clothes, heating and shelter, by underpinning ecosystem functioning and resilience and the provision of essential ecosystem services and by providing options for adapting to changing needs and circumstances;

(b) Biodiversity may be related to adverse health effects, notably through infectious agents;

(c) A number of drivers of change may affect both biodiversity and health;

(d) Health sector interventions can have both positive and negative impacts on biodiversity and that biodiversity-related interventions can have both positive and negative impacts on human health,

*Noting* that better consideration of health-biodiversity linkages could contribute to improving many aspects of human health, including nutrition, reducing the global burden of infectious as well as non-communicable diseases, and improving mental health and well-being,

*Noting also* that recognition of the health benefits of biodiversity reinforces the rationale for the conservation and sustainable use of biodiversity and thus contributes to the implementation of the Strategic Plan for Biodiversity 2011-2020 and to the achievement of the Aichi Biodiversity Targets,

*Acknowledging* that health-biodiversity linkages are related to the 2030 Agenda for Sustainable Development and to the Sustainable Development Goals,<sup>11</sup>

*Recognizing* that the health benefits of biodiversity are influenced by socioeconomic factors and may be specific to local ecosystems and cultures, that men and women often have different roles in the management of natural resources and family health, and that poor and vulnerable communities, women and children are often particularly directly dependent on biodiversity and ecosystems for food, medicines, clean water, and other health related services,

*Highlighting* the importance of traditional knowledge as well as conventional scientific knowledge in realizing the health benefits of biodiversity,

*Re-emphasizing* the value of the “One Health” approach to addressing the cross-cutting issue of biodiversity and human health, as an integrated approach consistent with the ecosystem approach (decision V/6),

1. *Takes note* of the key messages contained in the summary of *Connecting Global Priorities: Biodiversity and Human Health, a State of Knowledge Review*,<sup>12</sup>

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<sup>11</sup> General Assembly resolution 70/1, annex.

<sup>12</sup> UNEP/CBD/SBSTTA/6/Add.1.

2. *Invites* Parties and other Governments, to consider using the *State of Knowledge Review* and its key messages, as appropriate, to promote the understanding of health-biodiversity linkages with a view to maximizing health benefits, addressing trade-offs, and where possible, addressing common drivers for health risks and biodiversity loss;

3. *Invites* Parties and other Governments to make use of the information contained in the annex to the present decision, as appropriate and taking into account national circumstances, to achieve the objective stated in paragraph 2 above;

4. *Invites* Parties, other Governments and relevant organizations to carry out activities, as appropriate and taking into account national circumstances, inter alia:

(a) To facilitate dialogue between agencies responsible for biodiversity and those responsible for health and other relevant sectors, across all levels of government;

(b) To consider relevant health-biodiversity linkages in developing and updating relevant national policies, strategies, plans, and accounts including health strategies, such as national environmental health action plans, national biodiversity strategies and action plans, and sustainable development and poverty eradication strategies;

(c) To strengthen national monitoring capacities and data collection, including integrated surveillance capacities and early warning systems, that enable health systems to anticipate, prepare for and respond to public health threats resulting from ecosystem change;

(d) To consider health-biodiversity linkages in environmental impact assessments, risk assessments and strategic environmental assessments, as well as in health impact assessments, social and economic valuation and the evaluation of trade-offs;

(e) To address, monitor and evaluate any unintended and undesirable negative impacts of biodiversity interventions on health and of health interventions on biodiversity;

(f) To identify opportunities for and promote healthy lifestyles and sustainable production and consumption patterns and associated behavioural change, that would benefit biodiversity and human health through, inter alia, the promotion of public health campaigns;

(g) To develop interdisciplinary education, training, capacity-building and research programmes on health-biodiversity linkages, using integrative approaches, at various levels and different spatial and temporal scales, and communities of practice on biodiversity and health;

(h) To consider the need to strengthen the capacity of health, environment and other relevant ministries, agencies and organizations to address health-biodiversity linkages in order to support preventative approaches to health and promote the multiple dimensions of health and well-being;

(i) To integrate relevant biodiversity concerns into national public health policies, with particular emphasis on the needs of indigenous peoples and local communities;

5. *Encourages* Parties, other Governments and relevant organizations:

(a) To develop integrated metrics, indicators and tools to facilitate the analysis, evaluation, monitoring and integration of biodiversity into health strategies, plans and programmes and vice-versa;

(b) To develop and compile toolkits, including good practice guides, aimed at raising awareness and enhancing co-benefits of biodiversity and health, including in the context of the implementation of the 2030 Agenda for Sustainable Development and Sustainable Development Goals;<sup>13</sup>

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<sup>13</sup> General Assembly resolution 70/1, annex.

6. *Also encourages* Parties, other Governments, relevant organizations and funding agencies to promote and support further research on health-biodiversity linkages and related socioeconomic considerations, including, inter alia, on the following issues:

(a) The relationships between biodiversity, ecosystem degradation and infectious disease emergence, including the effects of ecological community structure and composition, habitat disturbance and human-wildlife contact, and the implications for land use and ecosystem management;

(b) The interlinkages between dietary diversity, health and diversity of crops, livestock and other components of biodiversity in agricultural ecosystems, as well as marine and inland water ecosystems;

(c) The linkages between the composition and diversity of the human microbiome, and biodiversity in the environment, and implications for the planning, design, development and management of human settlements;

(d) The significance for health of marine biodiversity, including for food security, and the consequences of multiple stressors on marine ecosystems (including pathogens, chemicals, climate change and habitat degradation);

(e) The contribution of biodiversity and the natural environment, including protected areas, in promoting mental health, particularly in urban areas;

(f) The significance of soil biodiversity for health;

(g) Linkages between migratory species and their corridors and human health;

(h) Linkages between invasive alien species and human health;

7. *Invites* Parties, other Governments, and relevant organizations to provide information on the implementation of the present decision to the Executive Secretary;

8. *Decides to consider* biodiversity and human health interlinkages when addressing the follow-up to the Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets;

9. *Requests* the Executive Secretary, subject to the availability of resources:

(a) To collaborate with the World Health Organization and other relevant organizations, to promote and facilitate implementation of the present decision, including through wide dissemination of the *State of Knowledge Review* in the official languages of the United Nations, the development of toolkits and good practice guides (including on One Health) and support to capacity-building, as well as of the tasks set out in paragraph 9 of decision XII/21;

(b) To compile and analyse information received in the implementation of the present decision, including information provided further to paragraph 7 above;

(c) To submit a report to the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting prior to the fourteenth meeting of the Conference of the Parties.

#### *Annex*

#### **Information on health-biodiversity linkages**

(a) *Water supply and sanitation:* In water supply and sanitation policies and programmes, including the planning and design of water-related infrastructure, take into account the role of terrestrial and inland water ecosystems as “green infrastructure” in regulating the quantity, quality and supply of freshwater and flood regulation, protect these ecosystems, and address the drivers of their loss and degradation, including land-use change, pollution and invasive species;

(b) *Agricultural production*: Enhance the diversity of crops, livestock and other components of biodiversity in agricultural ecosystems to contribute to sustainable production increases and to the reduced use of pesticides and other chemical inputs, with benefits for human health and the environment, noting the relevance in this respect of the programme of work on agricultural biodiversity (decision V/5), and of the international initiative on pollinators (decision VIII/23 B);

(c) *Food and nutrition*: Promote the diversity and sustainable use of crops and livestock diversity and wild foods, including from marine and inland water sources, to contribute to human nutrition and dietary diversity, including by making available information on the nutritional value of diverse foods, with a view to improving human health, and promoting sustainable diets, including through appropriate information and public awareness activities, recognition of traditional, national and local food cultures, and the use of social and economic incentives throughout the supply chain, noting the relevance in this respect of the cross-cutting initiatives on biodiversity for food and nutrition (decision VIII/23 A);

(d) *Human settlements*: In urban planning, design, development and management, take into account the important role of biodiversity in providing physiological benefits, in particular the role of vegetation in improving air quality and counteracting the heat-island effect, and in fostering interchange between environmental microbes and the human microbiome;

(e) *Ecosystem management and infectious diseases*: Promote an integrated (“One Health”) approach to the management of ecosystems, associated human settlements and livestock, minimizing unnecessary disturbance to natural systems and so avoid or mitigate the potential emergence of new pathogens and manage the risk of transmission of pathogens between humans, livestock and wildlife in order to reduce the risk and incidence of infectious diseases, including zoonotic and vector-borne diseases;

(f) *Mental health and well-being*: Promote opportunities for interactions between people, especially children, and nature, to provide benefits for mental health, to support cultural well-being and encourage physical activity in green and biodiverse spaces, particularly in urban areas;

(g) *Traditional medicines*: Protect traditional medical knowledge, innovations and practices of indigenous peoples and local communities, promote the sustainable use, management and trade of plants and animals used in traditional medicine, and promote safe and culturally sensitive practices, and the integration and sharing of knowledge and experiences, based on prior and informed consent, and the fair and equitable sharing of benefits between traditional medical practitioners and the broader medical community;

(h) *Biomedical discovery*: Conserve biodiversity in terrestrial, inland water, coastal and marine areas; protect traditional knowledge, especially in areas of high importance for biodiversity and ecosystem services; and promote access to genetic resources and the fair and equitable sharing of benefits arising from their utilization consistent with Article 8(j) and with the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity;

(i) *Impacts of pharmaceutical products*: Avoid the overuse, and unnecessary routine use, of antibiotic and antimicrobial agents, both in human medicine and veterinary practice, to reduce harm to beneficial and symbiotic microbial diversity and to reduce the risk of antibiotic resistance; better manage the use and disposal of endocrine-disrupting chemicals to prevent harm to people, biodiversity and ecosystem services; and reduce the inappropriate use of non-steroidal anti-inflammatory drugs that threaten wildlife populations;

(j) *Species and habitat conservation*: In implementing policies to protect species and habitats, including protected areas, and other methods aimed at conservation and sustainable use, consider, in compliance with national legislation, improving access to, and customary sustainable use of, wild foods and other essential resources by indigenous peoples and local communities, especially poor and resource-dependent communities;

(k) *Ecosystem restoration*: Consider human health when carrying out ecosystem restoration activities and, where necessary, take measures to promote positive health outcomes and remove or mitigate negative health outcomes;

(l) *Climate change and disaster risk reduction*: In the analysis and implementation of ecosystem-based adaptation, mitigation and disaster risk reduction measures, prioritize measures that jointly contribute to human health and to the conservation of biodiversity and of vulnerable ecosystems, and that support the health, well-being, safety and security of vulnerable human populations, and build resilience.

### **XIX/7. Climate-related geoengineering**

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

*Recalling* decisions X/33 and XI/20 and the information contained in Technical Series No. 66 of the Convention on Biological Diversity,<sup>14</sup>

*Noting* that the Intergovernmental Panel on Climate Change in its Fifth Assessment Report has not addressed, in detail, the impacts of climate-related geoengineering techniques on biodiversity and ecosystems,

1. *Takes note* of the updated report on climate-related geoengineering in relation to the Convention on Biological Diversity<sup>15</sup> and the information contained in the note by the Executive Secretary on climate-related geoengineering,<sup>16</sup>

2. *Recommends* that the Conference of the Parties at its thirteenth meeting adopt a decision along the following lines:

*The Conference of the Parties*

(a) *Reaffirms* paragraph 8, in particular its subparagraph (w), of decision X/33, and decision XI/20;

(b) *Recalls* paragraph 11 of decision XI/20, in which the Conference of the Parties noted that the application of the precautionary approach as well as customary international law, including the general obligations of States with regard to activities within their jurisdiction or control and with regard to possible consequences of those activities, and requirements with regard to environmental impact assessment, may be relevant for geoengineering activities but would still form an incomplete basis for global regulation;

(c) *Recalling* paragraph 4 of decision XI/20, in which the Conference of the Parties emphasized that climate change should primarily be addressed by reducing anthropogenic emissions by sources and by increasing removals by sinks of greenhouse gases under the United Nations Framework Convention on Climate Change, noting also the relevance of the Convention on Biological Diversity and other instruments, and *also recalling* paragraphs 8 (j)-(t) of decision X/33, and paragraph 5 of decision XII/20, *reaffirms* its encouragement to Parties to promote the use of ecosystem-based approaches to climate change adaptation and mitigation;

(d) *Notes* that very few Parties responded to the invitation to provide information on measures they have undertaken in accordance with decision X/33, paragraph 8(w), and further invites other Parties, where relevant, to provide such information;

(e) *Also notes* that more transdisciplinary research and sharing of knowledge among appropriate institutions is needed in order to better understand the impacts of climate-related geoengineering on biodiversity and ecosystem functions and services, socio-economic, cultural and ethical issues and regulatory options;

(f) *Recognizes* the importance of taking into account sciences for life and the knowledge, experience and perspectives of indigenous peoples and local communities when addressing climate-related geoengineering and protecting biodiversity.

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<sup>14</sup> *Geoengineering in Relation to the Convention on Biological Diversity: Technical and Regulatory Matters*, available at [www.cbd.int/doc/publications/cbd-ts-66-en.pdf](http://www.cbd.int/doc/publications/cbd-ts-66-en.pdf).

<sup>15</sup> UNEP/CBD/SBSTTA/19/INF/2.

<sup>16</sup> UNEP/CBD/SBSTTA/19/7.

**XIX/8. Forest biodiversity: role of international organizations in supporting the achievement of the Aichi Biodiversity Targets**

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

1. *Takes note* of the information contained in the note by the Executive Secretary on the role of relevant international organizations in supporting the achievement of the forest-related Aichi Biodiversity Targets<sup>17</sup> and in the information note on the contributions of Collaborative Partnership on Forests member organizations to the achievement of the forest-related Aichi Biodiversity Targets;<sup>18</sup>

2. *Welcomes* the contribution of the members of the Collaborative Partnership on Forests to efforts to achieve the Aichi Biodiversity Targets, in particular with regard to forests;

3. *Requests* the Executive Secretary, working with the Secretariat of the United Nations Forum on Forests and the other members of the Collaborative Partnership on Forests, to contribute to the preparation of the Strategic Plan 2017-2030 of the international arrangement on forests and the related work plan of the Collaborative Partnership on Forests with a view to promoting consistency with the Strategic Plan for Biodiversity 2011-2020, and to further enhancing the achievement of the forest-related Aichi Biodiversity Targets in the context of the 2030 Agenda for Sustainable Development;<sup>19</sup>

4. *Recommends* that the Conference of the Parties adopt a decision along the following lines:

*The Conference of the Parties,*

*Noting* the strong congruence among the forest-related Aichi Biodiversity Targets, the four global objectives on forests, REDD+<sup>20</sup> activities and guidance, and the forest-related Sustainable Development Goals, and *emphasizing* that their achievement is important for the implementation of the 2050 vision of the Strategic Plan for Biodiversity, as well as for the 2030 Agenda for Sustainable Development,<sup>19</sup> recognizing also alternative policy approaches, such as the joint mitigation and adaptation approach for the integral and sustainable management of forests, noted in decision XII/20, paragraph 4,

*Stressing* the need to enhance coherence, cooperation and synergies among forest-related agreements, and their processes and initiatives, both at the policy and implementation levels,

(a) *Welcomes* the resolution of the Economic and Social Council of the United Nations on the international arrangement on forests beyond 2015,<sup>21</sup> which strengthens the international arrangement and extends it to 2030;

(b) *Also welcomes* the 2030 Agenda for Sustainable Development<sup>19</sup> and, in particular, the forest-related targets under Sustainable Development Goals 6 and 15;

(c) *Notes* other initiatives to reduce forest loss and encourages Parties and all relevant stakeholders to take part, as appropriate, in their implementation, as a contribution to the achievement of the forest-related Aichi Biodiversity Targets;

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<sup>17</sup> UNEP/CBD/SBSTTA/19/8.

<sup>18</sup> UNEP/CBD/SBSTTA/19/INF/3.

<sup>19</sup> General Assembly resolution 70/1, annex.

<sup>20</sup> REDD+ is used as a shorthand for “reducing emissions from deforestation and forest degradation, conservation of forest carbon stocks, sustainable management of forests and enhancement of forest carbon stocks in developing countries”, consistent with paragraph 70 of decision 1/CP.16 of the United Nations Framework Convention on Climate Change (UNFCCC). The acronym REDD+ is used for convenience only, without any attempt to pre-empt ongoing or future negotiations under UNFCCC.

<sup>21</sup> Council resolution 2015/33 of 22 July 2015.

(d) *Invites* the United Nations Forum on Forests, in developing the Strategic Plan 2017-2030 of the international arrangement on forests, to take into account the forest-related Aichi Biodiversity Targets, with a view to promoting a coordinated approach to the achievement of the forest-related multilateral commitments and goals;

(e) *Also invites* the members of the Collaborative Partnership on Forests, in preparing the 2017-2030 work plan of the Partnership, to consider ways and means of further enhancing their individual and collective contributions to the Aichi Biodiversity Targets and support a coordinated approach to the achievement of the forest-related multilateral commitments and goals, such as the following:

- (i) Sharing experiences and related information on the implementation of the forest-related Aichi Biodiversity Targets;
- (ii) Identifying actions by which they could provide useful support to countries, including for the implementation of the Strategic Plan 2011-2020 and the Aichi Biodiversity Targets, taking into account the different visions, approaches, models and tools to improve the integrated management of forests, including the development of technical capacity;
- (iii) Examining their respective roles in order to leverage the comparative advantages of each of the members and to further enhance their joint contributions;
- (iv) Improving monitoring of and reporting on progress, including the harmonization of indicators and reporting processes;
- (v) Improving knowledge management, including through open data platforms and interoperability to facilitate the sharing and synthesis of information;

(f) *Encourages* Parties, when developing and implementing their forest policy in the context of the Aichi Biodiversity Targets and the other forest-related multilateral commitments and goals to take into account, as appropriate (i) other land uses, including agriculture, (ii) climate change mitigation and adaptation, and (iii) disaster risk reduction, and to give due consideration to the conservation and sustainable use of natural forests and native vegetation and avoiding the potential negative impacts of afforestation of non-forest biomes;

(g) *Requests* the Executive Secretary to strengthen collaboration with the members of the Collaborative Partnership on Forests, including the Secretariat of the United Nations Forum on Forests, as well as other relevant organizations and initiatives, to fully respond to the requests of the Conference of the Parties in paragraph 21 of decision XII/6, to support the implementation of the present decision, and to report on progress to the Subsidiary Body on Scientific, Technical and Technological Advice or the Subsidiary Body on Implementation, as appropriate, at a meeting prior to the fourteenth meeting of the Conference of the Parties.



## II. PROCEEDINGS OF THE MEETING

### INTRODUCTION

#### A. Background

1. The nineteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice was held at the headquarters of the International Civil Aviation Organization (ICAO), from 2 to 5 November 2015, back to back with the ninth meeting of the Ad Hoc Open-ended Intersessional Working Group on Article 8(j) and Related Provisions.

#### B. Attendance

2. The meeting was attended by representatives of the following Parties and other Governments: Albania; Antigua and Barbuda; Argentina; Australia; Austria; Azerbaijan; Barbados; Belarus; Belgium; Benin; Bhutan; Bolivia (Plurinational State of); Bosnia and Herzegovina; Botswana; Brazil; Burkina Faso; Burundi; Cabo Verde; Cambodia; Cameroon; Canada; Central African Republic; Chad; China; Colombia; Comoros; Costa Rica; Cuba; Czech Republic; Democratic Republic of the Congo; Denmark; Dominica; Ecuador; Egypt; Estonia; Ethiopia; European Union; Finland; France; Gambia; Germany; Grenada; Guatemala; Guinea; Guinea-Bissau; Iceland; India; Indonesia; Ireland; Israel; Japan; Kuwait; Lebanon; Madagascar; Malawi; Malaysia; Maldives; Mali; Marshall Islands; Mauritania; Mexico; Morocco; Mozambique; Namibia; Netherlands; New Zealand; Niger; Nigeria; Norway; Pakistan; Palau; Peru; Philippines; Portugal; Republic of Korea; Republic of Moldova; Saint Lucia; Sao Tome and Principe; Saudi Arabia; Senegal; Serbia; Singapore; Slovakia; Solomon Islands; South Africa; Sri Lanka; Sudan; Sweden; Switzerland; Syrian Arab Republic; Tajikistan; Thailand; Timor-Leste; Togo; Tonga; Uganda; Ukraine; United Arab Emirates; United Kingdom of Great Britain and Northern Ireland; United Republic of Tanzania; Uruguay; Viet Nam; and United States of America.

3. Observers from the following United Nations bodies; specialized agencies; convention secretariats and other bodies also attended: Food and Agriculture Organization of the United Nations; Global Environment Facility (GEF); GEF Scientific and Technical Advisory Panel (STAP); Intergovernmental Platform on Biodiversity and Ecosystem Services; International Treaty on Plant Genetic Resources for Food and Agriculture; United Nations Convention to Combat Desertification; United Nations Environment Programme; United Nations Office for Project Services; United Nations Permanent Forum on Indigenous Issues; United Nations University Institute for Advanced Study of Sustainability.

4. The following organizations were also represented by observers:

Articulação Pacari	Conservation International
ASEAN Centre for Biodiversity	Convention on the Conservation of European
Asia Indigenous Peoples Pact Foundation	Wildlife and Natural Habitats (Bern
Asociación Ixacavaa De Desarrollo e	Convention), Council of Europe
Información Indígena	Coordinadora de las Organizaciones Indígenas
Association TUNFA	de la Cuenca Amazónica - COICA
Biodiversity Matters	CSIRO
Bioversity International	Deutsche Forschungsgemeinschaft (DFG) -
BirdLife International	University of Bonn
CAB International - GISP	Deutsche Gesellschaft für Internationale
CBD Alliance	Zusammenarbeit (GIZ) GmbH
Center for Support of Indigenous Peoples of the	ECOROPA
North/Russian Indigenous Training Centre	ETC Group
CEPA Japan	Federation of German Scientists
COHAB Initiative Secretariat	Forest Peoples Programme
Community Development Centre	Friends of the Earth International

Fundación para la Promoción del Conocimiento Indígena  
Global Biodiversity Information Facility  
Global Forest Coalition  
Group on Earth Observations Biodiversity Observation Network - GEO BON  
Helmholtz Centre for Environmental Research - UFZ  
Indigenous Information Network  
Indonesian Institute of Sciences  
Institut de la Francophonie pour le développement durable  
Institute for Biodiversity Network  
Institute for Global Environmental Strategies  
Inter-American Institute for Global Change Research  
International Indigenous Forum on Biodiversity  
International Union of Forest Research Organizations  
International University Network on Cultural and Biological Diversity  
IUCN - International Union for Conservation of Nature  
Japan Agency for Marine-Earth Science and Technology  
Japan Civil Network for the United Nations Decade on Biodiversity  
Japan Committee for IUCN  
Japan Wildlife Research Center  
McGill University  
Ministry of Environment and Forests  
Mundo Afro  
Namibia- Nama Traditional Leaders Association  
Natural Justice (Lawyers for Communities and the Environment)  
Network of the Indigenous Peoples of Solomons  
PBL Netherlands Environmental Assessment Agency  
Rare  
Red de Mujeres Indígenas sobre Biodiversidad de América Latina y el Caribe  
Saami Council  
“SOTZIL (Centro para la Investigación y Planificación del Desarrollo Maya-SOTZ'IL)”  
South Asia Co-operative Environment Programme  
State University of New York at Plattsburgh  
Stockholm Resilience Centre  
SWAN International  
Te Runanga o Ngati Hine (NZ tribe Ngati Hine)  
Tebtebba Foundation  
Tulalip Tribes  
Union of Indigenous Nomadic Tribes of Iran  
United Organization of Batwa Development in Uganda  
Université de Sherbrooke  
Université du Québec à Montréal  
University of East Anglia  
University of Tokyo  
Vermont Law School  
Ville de Montréal  
WWF International

## ITEM 1. OPENING OF THE MEETING

5. The meeting was opened at 10.10 a.m. on 2 November 2015 by Mr. Andrew Bignell (New Zealand), Chair of the Subsidiary Body. Noting that the current meeting was taking place during the same week as the ninth meeting of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity, with some alternating sessions, he urged participants to take advantage of the opportunity for enriched discussion. The establishment of the Subsidiary Body on Implementation would also bolster the review of progress made and advance the implementation of the Convention on Biological Diversity. In conducting its work, the Subsidiary Body on Scientific, Technical and Technological Advice should consider how best to work alongside the new entity. Achieving the Aichi Biodiversity Targets and the broader sustainable development agenda would require strengthening existing partnerships and forging new ones. He urged participants to work together in the spirit of collaboration and let the technical and scientific information presented at the meeting form the basis of their discussions.

6. Opening statements were made by Mr. Balakrishna Pisupati, on behalf of the Executive Director of UNEP, Mr. Achim Steiner, and by Mr. Braulio Ferreira de Souza Dias, Executive Secretary of the Convention on Biological Diversity.

7. Mr. Pisupati noted that the current meeting was taking place against the backdrop of the adoption of the Sustainable Development Goals, and that biodiversity had become central to the sustainable development debate. The meeting agenda held two messages: that scientific, technical and policy tools were ready to be used, and that, because expertise was dispersed, Parties, the United Nations, the secretariats, academia, civil society and the private sector needed to join forces to achieve the desired results. He welcomed the growing importance of the social sciences in advancing the conservation agenda, saying that behavioural change research and social marketing strategies would help achieve several of the Aichi Biodiversity Targets. He also highlighted the need to ensure that national biodiversity strategies and action plans responded to opportunities and challenges in realizing the goals of the Strategic Plan and the 2030 Agenda for Sustainable Development.

8. Noting that the mid-term review of progress in implementing the Strategic Plan for Biodiversity 2011-2020 had indicated that the world had still not reached full speed and potential in achieving the Aichi Biodiversity Targets, he called for different approaches, differential investments and diverse stakeholder participation. The decision of the Conference of Parties at its twelfth meeting to establish the Subsidiary Body on Implementation, which was to meet in 2016, was a significant step forward in that regard, and the current meeting could provide the needed impetus for a strong outcome at that meeting.

9. UNEP had organized two expert meetings during 2014 and 2015 that had produced an options paper on enhancing cooperation and synergies among biodiversity-related multilateral environmental agreements. The options paper would be discussed at the Informal Advisory Group meeting to be held early 2016 in response to decision XII/6, as well as at the second session of the United Nations Environmental Assembly (UNEA-2) in May 2016, which would provide guidance to UNEP on enhancing cooperation and synergies between the multilateral environmental agreements to achieve the 2030 Agenda for Sustainable Development.

10. The recent initiative to partner with the World Health Organization (WHO) was an important milestone for the Convention in the effort to mainstream biodiversity and health more effectively, and the Secretariat's *State of Knowledge Review* on biodiversity and human health would help achieve elements of the Strategic Plan and relevant Sustainable Development Goals. UNEA-2 was to have a special focus on the issue of environment and health under the theme 'Healthy Environment and Healthy People'. A ministerial policy review on that theme would inform the ministerial dialogue at the meeting; the global thematic report supporting the ministerial policy review was focused on mapping the scientific evidence of environment and health linkages and identifying ways to accelerate the implementation of the Sustainable Development Goals related to the health-environment nexus and deliver the Agenda by 2030. The discussions at the current meeting on the issue of biodiversity and health could lay a strategic foundation for the discussions at UNEA-2, and the participants' input into the UNEA process was welcomed.

11. In closing, Mr. Pisupati called for collective, decisive action to achieve "the future we all want".

12. The Executive Secretary welcomed participants to the meeting and expressed his gratitude to the Governments of Australia, Canada, Finland, Germany, Japan, New Zealand, Norway and Sweden for their financial contributions, which had enabled representatives from least developed countries, small island developing States and indigenous peoples and local communities to participate in the meeting. He also appealed to other donor countries to enable full participation of all eligible Parties in future meetings, thus guaranteeing the legitimacy of the work conducted under the Convention. The outcome of the deliberations of the Subsidiary Body at its current meeting would set the stage for future work, including that of the newly established Subsidiary Body on Implementation, and ultimately facilitate the attainment of the 2050 Vision of the Strategic Plan for Biodiversity. While holding the meetings of the Subsidiary Body on Scientific, Technical and Technological Advice and the Working Group on Article 8(j) during the same week posed certain challenges, it also provided an opportunity for greater coherence between the two bodies and facilitated the participation of indigenous peoples and local communities in both meetings.

13. The functional review of the Secretariat was proceeding well and would enhance its capacity to respond to the needs of Parties.

14. The fourth edition of the *Global Biodiversity Outlook* had shown that, despite the progress made, significant additional action was required to keep the Strategic Plan for Biodiversity 2011-2020 on course. The current meeting's focus on mainstreaming biodiversity, tools for evaluating the effectiveness of policy instruments and indicators for monitoring the implementation of the Strategic Plan was therefore highly relevant. In order to attain the Aichi Biodiversity Targets and the 2050 Vision of the Strategic Plan, biodiversity issues had to be mainstreamed across sectors, especially those that depended on biodiversity or had a large impact on biodiversity, such as forestry, agriculture and fisheries. The fast-track thematic assessment of pollinators, pollination and food production and the regional and subregional assessments on biodiversity and ecosystem services conducted by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services would provide an important input in that regard. The Subsidiary Body also had before it reports entitled *Connecting Global Priorities: Biodiversity and Human Health, a State of Knowledge Review and Update on Climate Geoengineering in Relation to the Convention on Biological Diversity and Its Potential Impacts and Regulatory Framework* to inform its deliberations on biodiversity and human health and climate geoengineering.

15. Partnerships and collaborations with international organizations and processes were crucial. Milestones in that regard were the adoption of the Sendai Framework for Disaster Risk Reduction 2015-2030 and the 2030 Agenda for Sustainable Development, both of which recognized the importance of biodiversity and ecosystem services. Along with a decision by the Conference of the Parties to the United Nations Convention to Combat Desertification on leveraging synergies among the Rio conventions, they would enhance the implementation of the Strategic Plan, which could in turn play an important role in fulfilling the Agenda. Highlighting the linkages between climate change and biodiversity, which were increasingly recognized by international instruments, he encouraged Parties to continue engaging with the United Nations Framework Convention on Climate Change to promote the role of ecosystems in climate change mitigation and adaptation. The work of the new Future Earth research platform also had direct implications for the work of the Convention, and he looked forward to future collaboration.

16. He urged Parties that had not done so to submit their fifth national reports and to update their national biodiversity strategies and action plans, as well as to complete and submit the questionnaires to assess their country's needs for funding under GEF-7; unless a significant number of submissions were received, a credible assessment of funding needs would not be possible. With five years left to implement the Strategic Plan, significantly greater efforts were required to meet the Aichi Biodiversity Targets. He called on Parties to harness the opportunity represented by the newly established Subsidiary Body on Implementation, which could complement the work of the Subsidiary Body and give new impetus to the 2050 Vision of the Strategic Plan.

## **ITEM 2. ORGANIZATIONAL MATTERS**

### **A. Election of officers**

17. In accordance with the elections held at the seventeenth and eighteenth meetings of the Subsidiary Body, the Bureau at its nineteenth meeting comprised the following members:

Chair: Mr. Andrew Bignell (New Zealand)  
Vice-Chairs: Ms. Eugenia Arguedas Montezuma (Costa Rica)  
Ms. Lourdes Coya de la Fuente (Cuba)  
Ms. Malta Qwathekana (South Africa)  
Mr. Moustafa Fouda (Egypt)  
Mr. Horst Korn (Germany)  
Ms. Shirin Karriyeva (Turkmenistan)  
Ms. Snežana Prokić (Serbia)

Mr. Youngbae Suh (Republic of Korea)

Mr. Endang Sukara (Indonesia)

18. It was agreed that Mr. Endang Sukara would act as Rapporteur for the meeting.

19. At the 5th session of the meeting, on 4 November 2015, the Subsidiary Body elected the following officers to serve for a term commencing at the end of the nineteenth meeting and ending at the end of its twenty-first meeting, to replace the members from Cuba, Egypt, New Zealand, the Republic of Korea and Serbia: Mr. Norbert Bärlocher (Switzerland); Ms. Lourdes Coya de la Fuente (Cuba); Prudence Galega (Cameroon); Mr. Aleksandar Mijović (Montenegro) and Mr. Nialuga Evaimalo Tavita (Samoa).

### **B. Adoption of agenda and organization of work**

20. At the 1st session of the meeting, on 2 November 2015, the Subsidiary Body took up consideration of the agenda of the meeting.

21. The Subsidiary Body adopted the following agenda on the basis of the provisional agenda prepared by the Executive Secretary in consultation with the Bureau (UNEP/CBD/SBSTTA/19/1):

1. Opening of the meeting.
2. Organizational matters.
3. Strategic scientific and technical issues related to the implementation of the Strategic Plan for Biodiversity 2011-2020:
  - 3.1 Further consideration of the implications of the findings of the fourth edition of the *Global Biodiversity Outlook* and related reports, including with respect to mainstreaming and the integration of biodiversity across sectors;
  - 3.2 Key scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020 and related research;
  - 3.3 Tools to evaluate the effectiveness of policy instruments for the implementation of the Strategic Plan for Biodiversity 2011-2020;
  - 3.4 Indicators for the Strategic Plan for Biodiversity 2011-2020.
4. Reports and studies for review:
  - 4.1 Biodiversity and human health;
  - 4.2 Climate-related geoengineering;
  - 4.3 Forest biodiversity.
5. Work of the Subsidiary Body in the light of the 2014-2018 Work Programme of the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services and relationship with the Subsidiary Body on Implementation.
6. Other matters.
7. Adoption of the report.
8. Closure of the meeting.

22. At the 1st session of the meeting, on 2 November 2015, the Chair proposed that all sessions should be held in plenary.

23. At the invitation of the Chair, the rapporteur made a statement of thanks on behalf of all the participants at the meeting. He congratulated the Chair of the Subsidiary Body and the members of the Bureau for their hard work in preparing for the meeting and thanked the Executive Secretary and his team for the high-quality preparations. He also thanked the Government of Canada for hosting the meeting and

those Parties that had provided the generous funding to facilitate the participation of least developed countries and small island developing States. He had no doubt that the deliberations would be productive and he thanked the Chair for the opportunity to speak on behalf of the participants.

24. The representative of Canada said that, as a result of a recent federal election, there would be a change of Government in Canada. That would take place during the present meeting and, consequently, the Canadian delegation would not intervene during the meeting unless exceptional circumstances arose. However, that silence should not be taken as either agreement or disagreement with any of the decisions that either the Subsidiary Body or the Ad Hoc Open-ended Inter-sessional Working Group on Article 8(j) might recommend to the Conference of the Parties. He said that his delegation would continue to pay close attention to deliberations at those meetings, would participate actively in the side events and would respond, informally, to any questions or comments that the other participants might have. He assured the Subsidiary Body that Canada remained an enthusiastic supporter of the Convention and its three objectives.

### **ITEM 3. STRATEGIC SCIENTIFIC AND TECHNICAL ISSUES RELATED TO THE IMPLEMENTATION OF THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020**

#### **3.1. Further consideration of the implications of the findings of the fourth edition of the *Global Diversity Outlook* and related reports, including with respect to mainstreaming and the integration of biodiversity across sectors**

25. At the 1st session of the meeting, on 2 November 2015, the Subsidiary Body took up agenda item 3.1. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on further consideration of the implications of the findings of the fourth edition of the *Global Diversity Outlook* and related reports, including with respect to mainstreaming and the integration of biodiversity across sectors (UNEP/CBD/SBSTTA/19/2). It also had before it several information documents that were relevant to the findings of the *Global Diversity Outlook* and related reports.

26. Statements were made by the representatives of Belarus, Belgium, Bolivia (Plurinational State of), China, Colombia, the Democratic Republic of Congo (on behalf of the African Group), Finland, France, Germany, Guatemala (on behalf of the Like-minded Megadiverse Countries), Guinea, India, Japan, Mexico (also on behalf of the Group of Latin American and Caribbean countries), the Netherlands, Norway, Pakistan, the Philippines, Senegal, Serbia (on behalf of Central and Eastern Europe), South Africa, Sudan, Sweden, Switzerland, Timor-Leste, the United Kingdom of Great Britain and Northern Ireland, and Uruguay.

27. Statements were also made by the representatives of the Food and Agriculture Organization of the United Nations (FAO), the Global Forest Coalition, Global Youth Biodiversity Network, International Indigenous Forum on Biodiversity (IIFB), the International Union for Conservation of Nature (IUCN), and the United Nations Permanent Forum on Indigenous Issues (UNPFII).

28. Following the exchange of views, the Chair said that he would prepare a revised text for the consideration of the subsidiary body, taking into account the views expressed orally and the comments received in writing.

29. At the 5th session of the meeting, on 4 November 2015, the Subsidiary Body considered the revised draft recommendation.

30. Following an exchange of views, the revised draft recommendation was approved, as orally amended, for formal adoption by the Subsidiary Body as draft recommendation UNEP/CBD/SBSTTA/19/L.4.

31. At the 7th session of the meeting, on 5 November 2015, the Subsidiary Body adopted UNEP/CBD/SBSTTA/19/L.4 as recommendation XIX/1. The text of the recommendation, as adopted, is contained in section I of the present report.

### **3.2. Key scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020 and related research**

32. At the 2nd session of the meeting, on 2 November 2015, the Subsidiary Body took up agenda item 3.2. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on key scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020 and related research (UNEP/CBD/SBSTTA/19/3).

33. Statements were made by the representatives of Argentina, Belarus, Belgium, Benin, Brazil, Colombia, Egypt (on behalf of the African Group), Finland, France, Guatemala (on behalf of the Group of Like-minded Megadiverse Countries), India, Indonesia, Japan, Mexico, the Netherlands, New Zealand, Niger, Norway, the Philippines, the Republic of Korea, South Africa, Timor-Leste, and the United Kingdom of Great Britain and Northern Ireland.

34. Statements were also made by the representatives of Future Earth, Global Biodiversity Information Facility (GBIF), Tebtebba on behalf of the IIFB, and the United Nations University Institute for the Advanced Study of sustainability (UNU-IAS).

35. Following the exchange of views, the Chair said that he would prepare a revised text for the consideration of the Subsidiary Body, taking into account the views expressed orally and the comments received in writing.

36. At the 6th session of the meeting, on 4 November 2015, the Subsidiary Body considered the revised draft recommendation.

37. Following an exchange of views, the revised draft recommendation was approved, as orally amended, for formal adoption by the Subsidiary Body as draft recommendation UNEP/CBD/SBSTTA/19/L.7.

38. At the 7th session of the meeting, on 5 November 2015, the Subsidiary Body adopted UNEP/CBD/SBSTTA/19/L.7 as recommendation XIX/2. The text of the recommendation, as adopted, is contained in section I of the present report.

### **3.3. Tools to evaluate the effectiveness of policy instruments for the implementation of the Strategic Plan for Biodiversity 2011-2020**

39. At the 2nd session of the meeting, on 2 November 2015, the Subsidiary Body took up agenda item 3.3. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on tools to evaluate the effectiveness of policy instruments for the implementation of the Strategic Plan for Biodiversity 2011-2020 (UNEP/CBD/SBSTTA/19/4).

40. Statements were made by the representatives of Belgium, Brazil, China, Colombia, Ecuador, Finland, France, India, Japan, the Marshall Islands, Mexico, the Netherlands, Norway, the Philippines, Switzerland, Togo, and the United Kingdom of Great Britain and Northern Ireland.

41. Following the exchange of views, the Chair said that he would prepare a revised text for the consideration of the subsidiary body, taking into account the views expressed orally and the comments received in writing.

42. At the 4th session of the meeting, on 3 November 2015, the Subsidiary Body considered the revised draft recommendation (UNEP/CBD/SBSTTA/19/L.3).

43. Following an exchange of views, the Subsidiary Body approved the revised draft recommendation, as orally amended, and adopted it as recommendation XIX/3. The text of the recommendation, as adopted, is contained in section I of the present report.

### **3.4. Indicators for the Strategic Plan for Biodiversity 2011-2020**

44. At the 2nd session of the meeting, on 2 November 2015, the Subsidiary Body took up agenda item 3.4. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on

the implications of the recommendations of the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 for work under the Convention (UNEP/CBD/SBSTTA/19/5).

45. The representative of Switzerland reported on the outcome of the meeting of the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 held in Geneva, Switzerland, from 14 to 17 September 2015.

46. Statements were made by the representatives of Belarus, Belgium, Benin, Brazil, Burundi, China, Colombia, Costa Rica, Ecuador, European Union, France, Germany, India, Indonesia, Israel, Japan, Maldives, the Marshall Islands, Mexico, Morocco, the Netherlands, New Zealand, Niger, Norway, the Philippines, the Republic of Korea, Switzerland, South Africa, and the United Kingdom of Great Britain and Northern Ireland.

47. Statements were also made by the representatives of GBIF, IIFB, IUCN, the Siosiomaga Society of Samoa on behalf of the Global Forest Coalition, United Nations Convention to Combat Desertification (UNCCD), United Nations Environment Programme - World Conservation Monitoring Centre (UNEP-WCMC), and the World Wildlife Fund for Nature (WWF).

48. Following the exchange of views, the Chair said that he would prepare a revised text for the consideration of the Subsidiary Body, taking into account the views expressed orally and the comments received in writing.

49. At the 4th session of the meeting, on 3 November 2015, the Subsidiary Body considered the revised draft recommendation.

50. Statements were made by the representatives of Argentina, Australia, Brazil, Czech Republic, Colombia, Ethiopia, European Union, France, Japan, Mexico, Peru, South Africa, Sweden, Timor-Leste, and the United Kingdom of Great Britain and Northern Ireland.

51. At the 5th session of the meeting, on 4 November 2015, the Subsidiary continued its consideration of the revised draft recommendation.

52. Following an exchange of views, the revised draft recommendation, as orally amended, was approved for formal adoption by the Subsidiary Body as draft recommendation UNEP/CBD/SBSTTA/19/L.2.

53. At the 7th session of the meeting, on 5 November 2015, the Subsidiary Body adopted UNEP/CBD/SBSTTA/19/L.2 as recommendation XIX/4. The text of the recommendation, as adopted, is contained in section I of the present report.

#### **ITEM 4. REPORTS AND STUDIES FOR REVIEW**

##### **4.1. Biodiversity and human health**

54. At the 3rd session of the meeting, on 3 November 2015, the Subsidiary Body took up agenda item 4.1. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on Biodiversity and human health (UNEP/CBD/SBSTTA/19/6) and the executive summary of the *State of Knowledge Review: Connecting Global Priorities: Biodiversity and Human Health* (UNEP/CBD/SBSTTA/19/6/Add.1).

55. A video message was given by Mr. Diarmid Campbell-Lendrum, Team Leader, Climate Change and Health, World Health Organization (WHO), Geneva, Switzerland.

56. Mr. Campbell-Lendrum said that WHO had been working for nearly two decades on the implications of global environmental change and for human health. However, building alliances with the environment community had been a slow process. The Secretariat of the Convention had played a leading role in initiating collaboration, which had culminated in the compilation of the *State of Knowledge Review* on biodiversity and human health. The *Review* had been formally launched in early 2015 and drew on contributions from over 100 of the world's leading experts. It contained ample evidence of the alarming



trends in biodiversity loss, on the one hand, and the large proportion of global disease burden resulting from avoidable environmental risk factors, on the other. The *Review* highlighted the diversity of linkages between biodiversity and health, providing many specific examples. It also revealed the critical role biodiversity played in ecosystem functioning, and gave evidence of its direct benefits for good health, food and nutrition security, energy provision, freshwater and medicines, livelihoods and spiritual fulfilment. The document concluded that human health was entirely dependent on ecosystem services, and therefore biodiversity. Yet, 15 out of 24 of the ecosystem services examined during the Millennium Ecosystem Assessment were being degraded.

57. WHO had adopted the One Health Approach as one way to address those challenges, but it was important to work together. The current transition from the Millennium Development Goals to the Sustainable Development Goals provided strategic opportunities to link biodiversity, ecosystem services and health. It also promoted a shift towards longer-term risk assessment and national and local action. The environment and health communities needed to focus on common objectives, rather than compete for a greater share of the agenda. Biodiversity and health were relevant to many of the Sustainable Development Goals, which provided opportunities for working together to address the common drivers of biodiversity loss and ill health, and to use conservation policy as a delivery mechanism for human health. It was important to attach greater importance to the linkages between biodiversity, ecosystem services and health, to integrate biodiversity conservation and health considerations in key areas, and to encourage Governments to link relevant national policies. The Secretariat of the Convention and WHO must also cooperate in disseminating and building on the evidence assembled in the *Review* through outreach and capacity-building.

58. Statements were made by the representatives of Australia, Austria, Belgium, Bolivia (Plurinational State of), Brazil, Burkina Faso, Burundi, China, Colombia, Ethiopia (on behalf of the African Group), Finland, France, India, Indonesia, Israel, Kuwait, Malaysia, Morocco, Norway, Peru, the Republic of Korea, Saudi Arabia, South Africa, Sri Lanka, Switzerland, Timor-Leste, Tonga (on behalf of the Pacific island countries), and the United Kingdom of Great Britain and Northern Ireland.

59. Statements were also made by the representatives of Biodiversity International, FAO, Future Earth (and on behalf of EcoHealth Alliance), IIFB, IUCN, UNPFII, UNU, and WWF.

60. Following the exchange of views, the Chair said that he would prepare a revised text for the consideration of the Subsidiary Body, taking into account the views expressed orally and the comments received in writing.

61. At the 7th session of the meeting, on 5 November 2015, the Subsidiary Body considered the revised draft recommendation.

62. Following an exchange of views, the Subsidiary Body approved the revised draft recommendation, as orally amended, and adopted it as recommendation XIX/6. The text of the recommendation, as adopted, is contained in section I of the present report. .

#### **4.2. Climate-related geoengineering**

63. At the 3rd session of the meeting, on 3 November 2015, the Subsidiary Body took up agenda item 4.2. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on Climate-related geoengineering (UNEP/CBD/SBSTTA/19/7). It also had before it as an information document the Update on Climate Geoengineering in Relation to the Convention on Biological Diversity *Potential Impacts and Regulatory Framework* (UNEP/CBD/SBSTTA/19/INF/2).

64. At the invitation of the Chair, Mr. Philip Williamson, of the University of East Anglia, presented document UNEP/CBD/SBSTTA/19/INF/2, which provided an update on the potential impacts of geoengineering techniques on biodiversity together with an account of regulatory developments since the Secretariat had issued the document *Geoengineering in Relation to the Convention on Biodiversity: Technical and Regulatory Matters* (Technical Series No.66). He said that the update had used the same definition of climate-related geoengineering, which was defined as a deliberate intervention in the

planetary environment of a nature and scale intended to counteract anthropogenic climate change and its impacts. Although there were other possible definitions of geoengineering, the one being used was consistent with most scientific usage, included different methods of addressing global warming and was preferable for regulatory purposes to other possible definitions. When broadly defined, there was also an overlap between climate geoengineering and climate mitigation.

65. He also said that of the 27 key messages of the update the four principal messages were that: the assessment of the impacts of geoengineering on biodiversity was not straightforward; climate scenarios limiting future temperature increases to two degrees centigrade, while not impossible, were challenging as they generally relied on the removal of carbon dioxide from the atmosphere; the large-scale deployment of bioenergy with carbon capture and storage was likely to have significant negative impacts on biodiversity through greatly increased pressure on natural habitats; and while solar radiation management techniques could, in theory, slow or reverse global temperature increases, there were high levels of uncertainty regarding its impacts, especially if it was only used in either the northern or southern hemispheres, and not in both hemispheres.

66. In response to an observation that geoengineering had been translated as geological engineering in the Arabic language version of the document and might be better translated in another way, Mr. Williamson reminded the Subsidiary Body that the best definition of geoengineering was still being disputed. In the context of climate change, geoengineering had originally been called climate geoengineering, although over time the word climate had been dropped from the phrase, which meant that the use of the word geoengineering by itself could be unclear.

67. Statements were made by the representatives of Argentina (on behalf of the Group of Latin American and Caribbean countries), Austria, Belgium, Bolivia (Plurinational State of), Brazil, Egypt, Ethiopia, the European Union, France, Germany, Indonesia, Japan, Kuwait, New Zealand, Pakistan, the Philippines, South Africa, Sudan, Sweden, the United Kingdom of Great Britain and Northern Ireland and Uruguay.

68. Statements were also made by the representatives of ETC Group (Action Group on Erosion, Technology and Concentration) and Global Youth Biodiversity Network.

69. Following the exchange of views, the Chair said that he would prepare a revised text for the consideration of the Subsidiary Body, taking into account the views expressed orally and the comments received in writing.

70. At the 6th session of the meeting, on 4 November 2015, the Subsidiary Body considered the revised draft recommendation (UNEP/CBD/SBSTTA/19/L.5).

71. Following an exchange of views, the Subsidiary Body approved the revised draft recommendation, as orally amended, and adopted it as recommendation XIX/7. The text of the recommendation, as adopted, is contained in section I of the present report.

#### **4.3. Forest biodiversity**

72. At the 3rd session of the meeting, on 3 November 2015, the Subsidiary Body took up agenda item 4.3. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on the role of international organizations in supporting the achievement of the Aichi Biodiversity Targets related to forest biodiversity (UNEP/CBD/SBSTTA/19/8), as well as two information documents.

73. Mr. Dias, in his capacity as co-chair of the Collaborative Partnership on Forests (CPF), presented the document under consideration. He highlighted the fact that all the CPF member organizations favoured greater collaboration in aligning efforts to support the achievement of the Aichi Targets, and that the main forest-related Aichi Targets were reflected in the sustainable development agenda. The document also laid out CPF members' comparative advantages in policy development, implementation support, research and financial resources and their complementarity, as well as areas of divergence, issues warranting further attention and options for further joint actions.

74. At the 4th session of the meeting, on 3 November 2015, the Subsidiary Body continued consideration of the item.

75. Statements were made by the representatives of Argentina, Azerbaijan, Belarus, Belgium, Bolivia (Plurinational State of), Brazil, Colombia, the Democratic Republic of the Congo, Finland, France, Germany, India, Indonesia, Mexico, Morocco, New Zealand, Norway, Saint Lucia, Saudi Arabia, Sri Lanka and the United Kingdom of Great Britain and Northern Ireland.

76. Statements were also made by the representatives of FAO, Global Forest Coalition, IIFB, Mundo Afro on behalf local communities of Latin and America and the Caribbean, and WWF.

77. Following the exchange of views, the Chair said that he would prepare a revised text for the consideration of the subsidiary body, taking into account the views expressed orally and the comments received in writing.

78. At the 6th session of the meeting, on 4 November 2015, the Subsidiary Body considered the revised draft recommendation.

79. Following an exchange of views, the revised draft recommendation was approved, as orally amended, for formal adoption by the Subsidiary Body as draft recommendation UNEP/CBD/SBSTTA/19/L.6.

80. At the 7th session of the meeting, on 5 November 2015, the Subsidiary Body adopted UNEP/CBD/SBSTTA/19/L.6 as recommendation XIX/8. The text of the recommendation, as adopted, is contained in the section I of the present report.

**ITEM 5. WORK OF THE SUBSIDIARY BODY IN THE LIGHT OF THE 2014-2018 WORK PROGRAMME OF THE INTERGOVERNMENTAL SCIENCE-POLICY PLATFORM FOR BIODIVERSITY AND ECOSYSTEM SERVICES AND RELATIONSHIP WITH THE SUBSIDIARY BODY ON IMPLEMENTATION**

81. At the 4th session of the meeting, on 3 November 2015, the Subsidiary Body took up agenda item 5. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on the work of the Subsidiary Body in light of the 2014-2018 Work Programme of the Intergovernmental Science-policy Platform for Biodiversity and Ecosystem Services and relationship with the Subsidiary Body on Implementation (UNEP/CBD/SBSTTA/19/9). It also had before it, as an information document, the report on progress in implementing the Work Programme of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (UNEP/CBD/SBSTTA/19/INF/11).

82. At the invitation of the Chair, Ms. Anne Larigauderie, Executive Secretary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) introduced document UNEP/CBD/SBSTTA/19/INF/11 and provided an overview of progress at IPBES since the previous meeting of the Subsidiary Body. At its second plenary session, IPBES had adopted a programme of work for the period 2014 to 2018 which had been structured around 4 objectives and 18 deliverables; work on all of the deliverables was currently under way. IPBES was also finalizing its first two thematic assessments, on pollinators, pollination and food production, and on approaches to the use of models and scenarios, both of which would be considered at its fourth plenary session.

83. IPBES had also recently started four regional assessments and had set up four technical support units to support that work in: Colombia, Japan, South Africa and Switzerland. Those four regional assessments would, together with a thematic assessment on land degradation and restoration, be launched in 2018. A scoping report would also be considered at the fourth plenary session and would form the basis for the approval of the first IPBES global assessment. If approved by the plenary session, the global assessment would be launched during early 2019, within the Convention's reporting requirements for 2020 and for the fifth edition of the *Global Biodiversity Outlook*.

84. Cooperation between IPBES and the Convention had progressed well since the previous meeting of the Subsidiary Body: a memorandum of understanding had been signed by the two Secretariats and the Chair of the Subsidiary Body had attended meetings of the Multidisciplinary Expert Panel of IPBES, as an observer, and a member of the Secretariat of the Convention had attended a scoping meeting for the global assessment as a resource person. In closing she said that document UNEP/CBD/SBSTTA/19/9 provided a strong basis for future collaboration between IPBES and the Convention.

85. The representative of the Secretariat also made a presentation on the future of the *Global Biodiversity Outlook* in the light of the work of IPBES. He said that, while the global framework for action remained the Strategic Plan for Biodiversity 2011-2020, it was important to also recall both the Aichi targets and the longer term vision of the Strategic Plan. The fifth edition of the *Global Biodiversity Outlook* would assess progress to the 2020 Aichi Biodiversity Targets, the contributions to the 2030 Sustainable Development Goals, the prospect to achieve the 2050 vision and provide the scientific basis for updating the Strategic Plan to 2030. After reviewing the process for the development of the first four iterations of the *Global Biodiversity Outlook*, he said that the scientific basis for the fifth edition would be provided by the 6th national reports and the IPBES global assessment.

86. Statements were made by the representatives of Argentina, Belgium, Bosnia and Herzegovina, Brazil, China, Colombia, Egypt (on behalf of the African Group), Ethiopia, France, Guatemala, India, Japan, Mexico (on behalf of the Group of Latin American and Caribbean countries), Netherlands, Norway, Peru, Saudi Arabia, South Africa, Sweden, Switzerland, and the United Kingdom of Great Britain and Northern Ireland.

87. Statements were also made by the representatives of IUCN, and UNPFII.

88. Following the exchange of views, the Chair said that he would prepare a revised text for the consideration of the subsidiary body, taking into account the views expressed orally and the comments received in writing.

89. At the 6th session of the meeting, on 4 November 2015, the Subsidiary Body considered the revised draft recommendation.

90. Following an exchange of views, the revised draft recommendation was approved, as orally amended, for formal adoption by the Subsidiary Body as draft recommendation UNEP/CBD/SBSTTA/19/L.8.

91. At the 7th session of the meeting, on 5 November 2015, the Subsidiary Body adopted UNEP/CBD/SBSTTA/19/L.8 as recommendation XIX/5. The text of the recommendation, as adopted, is contained in section I of the present report.

#### **ITEM 6. OTHER MATTERS**

92. No other matters were raised.

#### **ITEM 7. ADOPTION OF THE REPORT**

93. The present report was adopted, as orally amended, at the 7th session of the meeting, on 5 November 2015, on the basis of the draft report prepared by the Rapporteur (UNEP/CBD/SBSTTA/19/L.1).

#### **ITEM 8. CLOSURE OF THE MEETING**

94. After the customary exchange of courtesies, the nineteenth meeting of the Subsidiary Body was closed at 5.25 p.m. on Friday, 5 November 2015.

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