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SUBSIDIARY BODY ON SCIENTIFIC,
TECHNICAL AND TECHNOLOGICAL ADVICE

Twenty-fourth meeting

Online, 3 May–9 June 2021

and Geneva, Switzerland, 14–27 March 2022

REPORT OF THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE ON ITS TWENTY-FOURTH MEETING

The Subsidiary Body on Scientific, Technical and Technological Advice held its meeting in two parts. Part I was held online, from 3 May to 9 June 2021 and part II was held in Geneva, from 14 to 27 March 2022. The Subsidiary Body prepared a total of ten recommendations. This included a recommendation on the proposed monitoring framework for the post-2020 global biodiversity framework and nine other recommendations to the Conference of the Parties addressing: the fifth edition of the *Global Biodiversity Outlook*; the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services; synthetic biology; soil biodiversity; biodiversity and health; invasive alien species; the conservation and sustainable use of marine and coastal biodiversity; and ecologically or biologically significant marine areas. While the Subsidiary Body considered all items on its agenda, due to time limitations it was not able to complete its consideration of the latter two items. The Subsidiary Body also prepared one recommendation to the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on risk assessment and risk management.

Contents

I.	Recommendations adopted by the Subsidiary Body on Scientific, Technical and Technological Advice.....	3
24/1.	Fifth edition of the Global Biodiversity Outlook and its summary for policymakers	3
24/2.	Proposed monitoring framework for the post-2020 global biodiversity framework	4
24/3.	Programme of work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services	52
24/4.	Synthetic Biology	55
24/5.	Risk assessment and risk management	62
24/6.	Review of the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity and updated plan of action	65
24/7.	Biodiversity and health	78
24/8.	Invasive alien species.....	81
24/9.	Conservation and sustainable use of marine and coastal biodiversity	100
24/10.	Ecologically or biologically significant marine areas.....	104
II.	Account of proceedings	114
	Introduction.....	114
	A. Background.....	114
	B. Attendance	114
	Item 1. Opening of the meeting.....	120
	Item 2. Organizational matters	123
	A. Adoption of the agenda.....	123
	B. Election of officers.....	124
	C. Organization of work	125
	Item 3. Post-2020 global biodiversity framework.....	126
	A. Fifth edition of the <i>Global Biodiversity Outlook</i>	128
	B. Technical and scientific aspects of the goals and targets of the post-2020 global biodiversity framework and suggested monitoring framework	128
	Item 4. Synthetic biology	130
	Item 5. Risk assessment and risk management of living modified organisms	131
	Item 6. Marine and coastal biodiversity	132
	A. Conservation and sustainable use of marine and coastal biodiversity	133
	B. Ecologically or biologically significant marine areas.....	134
	Item 7. Biodiversity and agriculture.....	135
	Item 8. Programme of work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.....	136
	Item 9. Biodiversity and health	137
	Item 10. Invasive alien species.....	138
	Item 11. Other matters.....	140
	Item 12. Adoption of the report.....	140
	Item 13. Closure of the meeting	140

I. RECOMMENDATIONS ADOPTED BY THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE

24/1. Fifth edition of the Global Biodiversity Outlook and its summary for policymakers

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

The Conference of the Parties

1. [Welcomes][Takes notes of] the fifth edition of the *Global Biodiversity Outlook*,¹ including its summary for policymakers, as well as the second edition of the *Local Biodiversity Outlooks*² and the *2020 Plant Conservation Report*,³

2. *Acknowledges with appreciation* the financial support provided by the Governments of Canada, Japan and the United Kingdom of Great Britain and Northern Ireland as well as the European Union for the preparation of the fifth edition of the *Global Biodiversity Outlook*;

3. *Takes note* of the general conclusions from the fifth edition of the *Global Biodiversity Outlook*;

4. *Also takes note* of the lessons learned from the implementation of the Strategic Plan for Biodiversity 2011-2020⁴ identified in the fifth edition of the *Global Biodiversity Outlook*;

5. *Encourages* Parties, and invites other Governments and local and subnational governments as well as relevant organizations, as appropriate, to use the reports and to take steps to widely disseminate their findings, including by translating the reports into local languages and producing other appropriate communication products for different stakeholders, and to make use of the reports when implementing the post-2020 global biodiversity framework.

¹ Secretariat of the Convention on Biological Diversity (2020). *Global Biodiversity Outlook 5*. Montreal.

² Forest Peoples Programme (2020). *Local Biodiversity Outlooks 2: The contributions of indigenous peoples and local communities to the implementation of the Strategic Plan for Biodiversity 2011–2020 and to renewing nature and cultures. A complement to the fifth edition of the Global Biodiversity Outlook*. Moreton-in-Marsh, England (United Kingdom) (see www.localbiodiversityoutlooks.net).

³ Sharrock, S. (2020). *Plant Conservation Report 2020: A review of progress in implementation of the Global Strategy for Plant Conservation 2011-2020*. Secretariat of the Convention on Biological Diversity, Montreal, Canada and Botanic Gardens Conservation International, Richmond, United Kingdom. *Technical Series No. 95*.

⁴ Conference of the Parties decision [X/2](#), annex.

24/2. Proposed monitoring framework for the post-2020 global biodiversity framework*The Subsidiary Body on Scientific, Technical and Technological Advice*

1. *Takes note* of the summary and proposed list of indicators for consideration in developing the monitoring framework for the post-2020 global biodiversity framework, and the list of proposed indicators for potential inclusion as headline indicators for the post-2020 global biodiversity framework, prepared by the co-chairs of the contact group on the item “Proposed monitoring framework for the post-2020 global biodiversity framework at the second part of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, contained in Appendices 1 and 2 respectively”;

2. *Requests* the Executive Secretary, under the guidance of the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice, to compile comments from Parties, other Government and relevant stakeholders on Appendices 1 and 2 of the present recommendation, and to facilitate a scientific and technical review, ensuring consultation with Parties, including, subject to the availability of resources, through the organization of an expert workshop (inviting experts nominated by Parties with regional representation and gender balance), of the proposed indicators of the monitoring framework for the post-2020 global *biodiversity* framework, building on the work done at part II of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice as contained in Appendices 1 and 2, focussing on a comprehensive analysis of high level indicators that have a methodology in place and the feasibility for Parties to use them, as well as the work of the Working Group on the Post-2020 Global Biodiversity Framework, and to make the outcome available for consideration by the Working Group on the Post-2020 Global Biodiversity Framework and the Conference of the Parties at its fifteenth meeting.

3. *Also Requests* the Executive Secretary to consider the concerns of Parties related to the headline indicators to be developed and in this regard, further requests that these concerns are communicated to the institutions responsible for developing these indicators.

4. *Recommends* that the Conference of the Parties at its fifteenth meeting adopt a decision that includes the following elements, taking into account also the conclusions of the third meeting of the Subsidiary Body on *Implementation* and the third meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework:

[The Conference of the Parties

[1. *Adopts* the monitoring framework for the post-2020 global biodiversity framework in annex I of the present decision;]

2. *Decides* to use the period from [2011-2020], where data is available, as the reference period, unless otherwise indicated, for reporting and monitoring progress in the implementation of the post-2020 global biodiversity framework, [while noting][and recognizes] that baselines, conditions and periods used to express [different responsibilities,] desirable states or levels of ambition in goals and targets should, where relevant, take into account [historical trends,][historic loss,] current status, and future scenarios of biodiversity [, including available information on the pre-industrial period];

3. *Also decides* to consider a review of the monitoring framework in order to finish its development at its sixteenth meeting, and thereafter keep the monitoring framework under review, as appropriate;

[4. *Further decides* that the headline indicators will be used [in global assessments] to monitor progress towards the goals and targets of the post-2020 global biodiversity framework, complemented, as appropriate, by the component and complementary indicators;]

[5. *Also decides* that the headline indicators [should] [will] be used by [all] Parties in their national reports for reporting on their implementation of the post-2020 global biodiversity framework, where technically feasible and as [appropriate][applicable][and in accordance with

Article 20][and encourages the establishment of mechanisms to build capacity in developing countries to support filling monitoring and reporting gaps];]

[6. *Encourages* all Parties to use the headline indicators in national planning processes, including national biodiversity strategies and action plans [or programmes for the conservation and sustainable use of biodiversity] and other national planning processes [as appropriate and according to their national priorities and circumstances;]]

[7. *Invites* Parties to [adapt and] use the list of component and complementary indicators in their national planning processes [as appropriate and according to their national priorities and circumstances] and in their national reports for reporting on their progress in implementation of the post-2020 global biodiversity framework in line with Article 26 of the Convention, [as appropriate and according to their national priorities and circumstances;]]

8. [*Recognizes* the value of aligning][*Further invites* Parties to align] national monitoring with the United Nations System of Environmental-Economic Accounting statistical standard in order to mainstream biodiversity in national statistical systems and to strengthen national monitoring systems and reporting [as appropriate and according to their national priorities and circumstances];

9. [*Encourages*] [*urges*] Parties [, pursuant to article 20,] and *invites* other Governments, the Global Environment Facility, the Biodiversity Indicator Partnership, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and other relevant organizations [and those invited to be part of the technical expert group on indicators] to support national, regional and global biodiversity monitoring systems;

[10. *Invites* the United Nations Statistical Commission, the Group on Earth Observations Biodiversity Observation Network, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the Biodiversity Indicators Partnership and other relevant organizations to support the operationalization of the monitoring framework for the post-2020 global biodiversity framework;]

11. *Decides* to establish an ad hoc technical expert group, with a time-bound mandate until the sixteenth meeting of the Conference of the Parties, to advise on the further operationalization of the monitoring framework for the post-2020 global biodiversity framework in accordance with the terms of reference contained in annex II to the present decision;

12. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to review outcomes of the ad hoc technical expert group and complete the scientific and technical review of the monitoring framework and report their findings for subsequent consideration by the Subsidiary Body on Implementation and by the Conference of the Parties at its sixteenth meeting;

13. *Decides* to consider the requirements for further work to fully implement and review the effectiveness of the monitoring framework for the post-2020 global biodiversity framework at its sixteenth meeting;

14. *Requests* the Executive Secretary, in collaboration with the ad hoc technical expert group, and subject to the availability resources, to convene moderated online discussions on the monitoring framework;

[15. *Requests* the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions to continue the development of and operationalization of indicators related to traditional knowledge and indigenous peoples and local communities and report on this work to the Parties and for the Secretariat to make information available on progress and outcomes to the ad hoc technical expert group [and other relevant working groups];]

16. *Requests* the Executive Secretary [subject to the availability of resources], in collaboration with relevant partners:

(a) To [make available] [facilitate the development of] guidance on capacity-building and development to support Parties in implementing the monitoring framework, taking into account the special needs, circumstances and priorities of developing countries, [in particular the least developed countries, small island developing States, and countries with economies in transition], in compiling and using the headline indicators, and component and complementary indicators when relevant, including in their national reports, national biodiversity strategies and action plans and other national planning processes;

(b) To facilitate the use of relevant tools, including the Data Reporting Tool (DaRT), to facilitate national reporting and the sharing of information between multilateral environment agreements.

17. *Invites* the Global Partnership on Plant Conservation, with the support of the Secretariat and subject to the availability of resources, to prepare a set of complimentary actions related to plant conservation to support the implementation of the global biodiversity framework aligned with the final post-2020 global biodiversity framework, other relevant decisions adopted at the fifteenth meeting of the Conference of the Parties as well as previous experiences with the implementation of the Global Strategy for Plant Conservation as described in the fifth edition of the *Global Biodiversity Outlook* and the 2020 Plant Conservation Report, to be considered by a meeting of the Subsidiary Body following the fifteenth meeting of the Conference of the Parties.

Annex I

PROPOSED MONITORING FRAMEWORK FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK⁵

1. The monitoring framework is composed of three [four] groups of indicators for monitoring the implementation of the post-2020 global biodiversity framework:

(a) Headline indicators (contained in Appendix 1): a minimum set of high-level indicators, which capture the overall scope of the goals and targets of the post-2020 global biodiversity framework to be used for planning and tracking progress as set out in decision 15/--.⁶ They are nationally, regionally and globally relevant indicators [validated by Parties]. These indicators can also be used for communication purposes;

(b) Component indicators (contained in Appendix 2): A list of optional[, multidimensional] indicators that together with the headline indicators would cover all components of the goals and targets of the post-2020 global biodiversity framework at the global, regional, national and [subnational] levels;

(c) Complementary indicators (contained in Appendix 2): a list of optional [, multidimensional] indicators for thematic or in-depth analysis of each goal and target which may be applicable at global, regional, national, and [subnational] levels;

[1 *bis*] [(d)] [The monitoring framework [can][will] be supplemented by [additional] national [and subnational] indicators.]

2. The indicators in the monitoring framework for the post-2020 global biodiversity framework should meet, or be able to meet by 2025, the following criteria:

(a) The data and metadata related to the indicator are publicly available;

(b) The methodology underpinning the indicator is either published in a peer reviewed academic journal or has gone through a scientific peer review process and has been validated for national use;

⁵ This annex will be finalized by the Conference of the Parties at its fifteenth meeting and will be completed on the basis of the outcome of the technical review of appendices 1 and 2 referred to in paragraph 2 of recommendation 24/2, ensuring alignment with the final version of the post-2020 global biodiversity framework.

⁶ Final wording subject to discussions under SBI-3 item 9.

(c) The data sources and indicators should be compiled and regularly updated with a time lag of less than five years between updates, if possible;

(d) There is an existing mechanism for maintaining the indicator methodology and/or data generation, including, for example, by a member of the Biodiversity Indicators Partnership, an intergovernmental organization or a well-established scientific or research institution, including providing nationally applicable guidance on the use of the indicator;

(d) *alt.* Indicators should be able to detect trends relevant to the components of the goals and targets of the post-2020 global biodiversity framework;

(e) When possible, indicators are aligned with existing intergovernmental processes under the United Nations Statistical Commission, such as the Sustainable Development Goals, the Framework for the Development of Environment Statistics or the System of Environmental-Economic Accounting. Additionally, an effort was made to utilize the existing work on essential biodiversity variables under the Group on Earth Observations Biodiversity Observation Network.

3. Headline indicators use methodologies agreed by Parties and are calculated based on national data from national monitoring networks and national sources, calculated at a national level, recognizing that in some cases this may need to draw on global dataset and if national indicators are not available then the use of global indicators at a national level must be validated through appropriate national mechanisms. These indicators would allow for consistent, standardized and scalable tracking of global goals and targets.

4. To facilitate the compilation and use of these headline, component and complementary indicators at the national level[, enabled by effective national biodiversity monitoring systems and other information systems,] capacity and development activities, technology and other support will be required. [The Secretariat together with organizations identified in the indicator metadata sheets as data providers, such as the Group on Earth Observations Biodiversity Observation Network, the International Union for Conservation of Nature, the System of Environmental-Economic Accounting and others, would be invited to provide guidelines and information for the design and implementation of national monitoring systems to support the collection of data and the calculation of headline indicators.] [In this way, developing country Parties would effectively use the headline indicators, as well as component and complementary indicators, supported by the effective provision of adequate means of implementation, in line with the provisions of the Convention, including the establishment of mechanisms to increase the capacity-building and development and technical and scientific cooperation to fill monitoring gaps.]

5. In order to maximize uptake and minimize the reporting burden, the proposed list of headline indicators comprises a small number of indicators which are intended to capture the overall scope of a goal or target in the post-2020 global biodiversity framework. The headline indicators may not capture all components of a goal or a target but for analytical purposes can be complemented, as appropriate, with the component and complementary indicators.

*[Annex II]***TERMS OF REFERENCE FOR AN AD HOC TECHNICAL EXPERT GROUP ON INDICATORS FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK**

1. The Ad Hoc Technical Expert Group on Indicators will work:
 - (a) To identify detailed metadata [and information] including [as appropriate, reference periods and] global baselines, prioritizing first headline indicators (according to the criteria identified in the annex to document CBD/-)[then component and complementary indicators] of the monitoring framework for the post-2020 global biodiversity framework, taking into account existing methodologies and standards which have been developed, including the Sustainable Development Goal indicators, the Framework for the Development of Environment Statistics and the System of Environmental-Economic Accounting developed under the auspices of the Statistical Commission;
 - (b) To provide technical advice and develop guidance on addressing gaps in the monitoring framework, prioritizing headline indicators, and in the implementation of indicators for the monitoring framework for the post-2020 global biodiversity framework, including advice on the use of harmonized and agreed indicator definitions, best practices for monitoring and national data sharing, and scientific and technical advice on the improvement of indicators or the addition of new indicators in the monitoring framework of the post-2020 global biodiversity framework, including indicators relevant to stakeholders;
 - (c) To provide technical advice on remaining and unresolved issues relating to the post-2020 monitoring framework, as outlined by the Conference of the Parties at its fifteenth meeting, and to prioritize work on the following elements leading up to the sixteenth meeting of the Conference of the Parties:
 - (i) Conduct a full assessment of headline, component and complementary indicators;
 - (ii) Explore methods for the implementation of indicators in national planning and reporting;
 - (iii) (List to be determined based on progress achieved by the fifteenth meeting of the Conference of the Parties).
 - (d) To provide guidance to Parties on ways to fill temporal and spatial data gaps, including through the use of big data, including citizen science, community-based monitoring and information systems, remote sensing, modelling and statistical analysis, and other forms of data and other knowledge systems, recognizing the specific challenges faced by developing country Parties to develop and access information tools;
 - (e) To provide advice on the existing capacity, gaps and needs in terms of capacity development, technology transfer and financing needs related to the monitoring of the global biodiversity framework in consultation with the Informal Advisory Group on Technical and Scientific Cooperation.⁷
2. The group will take into account:
 - (a) Previous work and experience under the Convention and other relevant programmes of work concerning indicators and monitoring;
 - (b) Statistical standards and development under the intergovernmental forum of the Statistical Commission;
 - (c) Previous work and experience with other relevant global, regional and national monitoring frameworks, multilateral environment agreements, and knowledge systems;
 - (d) Recent developments and information on issues related to the indicators, their metadata and baselines.

⁷ Pending adoption of the decision contained in recommendation SBI-3/8

3. The Group will be composed of 30 technical experts nominated by Parties, including experts on statistics and experts in relevant social and natural sciences, and up to 15 representatives nominated by observer organizations and other relevant organizations. The Executive Secretary, in consultation with the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice, will select experts from the nominations submitted by Parties and organizations with due regard to representation of different areas of technical expertise, while recognizing the need for expert knowledge of biodiversity, and ensuring expertise on freshwater, marine and coastal ecosystems, also taking into account geographical representation, and the representation of indigenous peoples and local communities, major stakeholders and rights holders' groups, gender balance and the special conditions of developing countries, archipelagic States, in particular the least developed countries, small island developing States, and countries with economies in transition.
 4. The Group will nominate two co-chairs from among the selected experts.
 5. The Chair of the Subsidiary Body on Scientific, Technical and Technological Advice will be invited to participate in the group *ex officio*.
 6. The Group may also invite other experts, as appropriate, from national Governments, [subnational and local governments,] the United Nations and other international organizations, civil society, youth, women's groups, indigenous peoples and local communities, including representatives from the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions, academia and the private sector to contribute their expertise and experiences on specific issues related to the terms of reference of the Group.
 7. The Group will primarily conduct its work electronically and [subject to the availability of resources,] will also meet physically, if possible, meeting at least twice during the intersessional period.
 8. The Ad Hoc Technical Expert Group should be established and start its work immediately after approval by the Conference of the Parties at its fifteenth meeting and report on its work to the Subsidiary Body on Implementation and the Subsidiary Body on Scientific, Technical and Technological Advice at meetings held prior to the sixteenth meeting of the Conference of the Parties.
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Appendix 1

CO-CHAIRS' SUMMARY AND PROPOSED LIST OF INDICATORS FOR CONSIDERATION IN DEVELOPING THE MONITORING FRAMEWORK FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Co-Chairs Summary⁸

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
<p>Goal A The integrity of all ecosystems is enhanced, with an increase of at least 15 per cent in the area, connectivity and integrity of natural ecosystems, supporting healthy and resilient populations of all species, the rate of extinctions has been reduced at least tenfold, and the risk of species extinctions across all taxonomic and functional groups is halved, and genetic diversity of wild and domesticated species is safeguarded, with at least 90 per cent of genetic diversity within all species maintained.</p> <p><i>Milestone A.1 Net gain in the area, connectivity and integrity of natural systems of at least 5 per cent.</i></p>	<p>A.0.1 Extent of [selected] natural and [seminatural and] modified [sustainable[y]][managed] ecosystems [in all biomes of the IUCN ecosystem typology] by type [(e.g. forest, [desert,] savannahs and grasslands, wetlands, [lakes, rivers,] [alpine vegetation,] mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats)]</p>	<p>Relevance: Green/yellow Nationally feasible: yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Relevant, not fully operational Many Parties supported this indicator with minor modifications. Some Parties noted the need for an additional indicator on connectivity and integrity. A number of alternative indicators were proposed. In particular, the Red List of Ecosystems (a.8) was proposed by several of Parties.</p>	<p>A.2.1 CMS connectivity indicator (CMS) A.3.1 Ecosystem Integrity Index A.4.1 Species status information index A.4.2 Living Planet Index A.8.1 Proportion of populations maintained within species</p>	<p>a.1. Forest area as a proportion of total land area (SDG indicator 15.1.1) a.2. Forest distribution a.3. Tree cover loss a.4. Grassland and savannah extent a.5. Mountain Green Cover Index a.6. Peatland extent and condition a.7. Permafrost thickness, depth and extent a.8. Red List of Ecosystems a.9. Continuous Global Mangrove Forest Cover a.10. Trends in mangrove forest fragmentation a.11. Change in the extent of water-related ecosystems over time (SDG indicator 6.6.1) a.12. Trends in mangrove extent a.13. Live coral cover</p>
	<p>A.0.2 Species Habitat Index</p>	<p>Relevance: Red/yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Low relevance, not fully operational</p>		

⁸ The comments in the third column of the below table represent only the views of the co-chairs of the contact group on the item “Proposed monitoring framework for the post-2020 global biodiversity framework,” Mr. Andrew Stott (United Kingdom) and Mr. Alfred Oteng-Yeboah (Ghana), regarding the assessment of the indicators of the monitoring framework.

⁹ CBD/WG2020/3/3.

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
<p><i>Milestone A.2 The increase in the extinction rate is halted or reversed, and the extinction risk is reduced by at least 10 per cent, with a decrease in the proportion of species that are threatened, and the abundance and distribution of populations of species is enhanced or at least maintained.</i></p> <p><i>Milestone A.3 Genetic diversity of wild and domesticated species is safeguarded, with an increase in the proportion of species that have at least 90 per cent of their genetic diversity maintained.</i></p>		<p>Some Parties expressed support for this indicator, many Parties felt that this indicator should not be included at the headline level and should be at the component level. The addition of the Living Planet Index was proposed by a number of Parties. A number of other indicators were suggested.</p>		<p>a.14. Hard Coral cover and composition</p> <p>a.15. Global coral reef extent</p> <p>a.16. Global Seagrass Extent (Seagrass Cover and composition)</p> <p>a.17. Global saltmarsh extent</p> <p>a.18. Kelp canopy extent</p> <p>a.19. Macroalgal Canopy Cover and Composition</p> <p>a.20. Cover of key benthic groups</p> <p>a.21. Fleishy algae cover</p> <p>a.22. Wetland Extent Trends Index</p> <p>a.23. Change in the extent of inland water ecosystems over time</p> <p>a.24. Change in the extent of water related ecosystems (SDG Indicator 6.6.1)</p> <p>a.25. Forest Fragmentation Index</p> <p>a.26. Forest Landscape Integrity Index</p> <p>a.27. Biomass of selected natural ecosystems (A.0.2)</p> <p>a.28. Biodiversity Habitat Index</p> <p>a.29. Global Vegetation Health Products</p> <p>a.30. Bioclimatic Ecosystem Resilience Index (BERI)</p> <p>a.31. Relative Magnitude of Fragmentation (RMF)</p> <p>a.32. Ecosystem Intactness Index</p>
	<p>A.0.3 Red list index (SDG 15.5.1)</p>	<p>Relevance: Green</p> <p>Nationally feasible: Yellow</p> <p>Globally feasible with national disaggregation: Green</p> <p>Readiness: Green</p> <p>Summary: Relevant and ready to use.</p> <p>Most Parties supported the use of the indicator at the global level. However, some Parties noted differences in the implementation of this indicator at the national level.</p>		
	<p>A.0.4 The proportion of populations within [umbrella] species with a [genetically] effective population size > 500</p>	<p>Relevance: Green</p> <p>Nationally feasible: Yellow</p> <p>Globally feasible with national disaggregation: Red</p> <p>Readiness: Yellow</p> <p>Summary: Relevant, not fully operational</p> <p>Many Parties supported the concept of this indicator;</p>		

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
		<p>however, noted that it would require resources to operationalize it and that it would be difficult in the near term. A number of other indicators were suggested.</p>		<p>a.33. Biodiversity Intactness Index a.34. Ocean Health Index a.35. Extent of physical damage indicator to predominant seafloor habitats physical damage a.36. Wetland Extent Trends Index a.37. River Fragmentation Index a.38. Dendritic Connectivity Index a.39. Percentage of threatened species that are improving in status according to the Red List a.40. Changing status of evolutionary distinct and globally endangered species (EDGE Index) a.41. Number of threatened species by species group a.42. Wild bird index a.43. Mean Species Abundance (MSA) a.44. Species Protection Index a.45. Changes in plankton biomass and abundance a.46. Fish abundance and biomass a.47. The number of populations (or breeds) within species with an effective population size > 500 compared to the number < 500 a.48. Genetic scorecard for wild species</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
				a.49. Species richness/Changes in local terrestrial diversity (PREDICTS) a.50. Marine species richness a.51. Comprehensiveness of conservation of socioeconomically as well as culturally valuable species. a.52. Number of plant and animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities (SDG 2.5.1) a.53. Proportion of local breeds classified as being at risk, extinction a.54. Red List Index (wild relatives of domesticated animals)
<p>Goal B Nature's contributions to people are valued, maintained or enhanced through conservation and sustainable use supporting the global development agenda for the benefit of all.</p> <p><i>Milestone B.1 Nature and its contributions to people are fully accounted and inform all relevant public and private decisions.</i></p> <p><i>Milestone B.2 The long-term sustainability of all categories of nature's contributions to people is ensured, with those</i></p>	B.0.1 National environmental economic accounts of ecosystem services*	<p>Relevance: Green/yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Red Readiness: Yellow/red Summary: Relevant, not fully operational Some Parties suggested splitting this indicator into biophysical and monetary accounts with the monetary accounts being optional. Some Parties stated that an indicator on sustainable use should be added.</p>	B.2.1 Nature's regulating contributions including climate regulation, disaster prevention and other (from the environmental economic accounts) B.3.1 Nature's material contributions including food, water and others (from the	b.1. Expected loss of Phylogenetic Diversity (IPBES phylogenetic diversity indicator) b.2. Red List Index (pollinating species) b.3. Green status index (pollinators) b.4. Air quality index b.5. Air pollution emissions account b.6. Zoonotic disease in wildlife b.7. Climatic impact index b.8. Ocean acidification (SDG 14.3.1) b.9. Level of water stress: freshwater withdrawal as a proportion of available freshwater resources

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
<p><i>currently in decline restored, contributing to each of the relevant Sustainable Development Goals.</i></p>			<p>environmental economic accounts) B.4.1 Nature’s non-material contributions including cultural (from the environmental economic accounts)</p>	<p>b.10. Proportion of bodies of water with good ambient water quality (SDG indicator 6.3.2) b.11. Eflow index b.12. Change in the quality of inland water ecosystems over time b.13. Change in the quality of coastal water ecosystems over time b.14. Level of erosion b.15. Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1) b.16. Intact wilderness b.17. Biofuel production b.18. Maximum fish catch potential b.19. Population involved in hunting and gathering b.20. Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale b.21. Forestry Production & Trade (Wood Fuel) b.22. Trends in the legal trade of medicinal plants b.23. Visitor management assessment b.24. Number of formal and non-formal education programmes transmitting spiritual and cultural</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
				<p>values in the UNESCO World Network of Biosphere Reserves</p> <p>b.25. Number of mixed sites (having both natural and cultural Outstanding Universal Values), cultural landscapes (recognized as combined works of nature and people) and natural sites with cultural values including those supporting local and indigenous knowledge and practices inscribed on the UNESCO World Heritage List and UNESCO World Network of Biosphere Reserves</p> <p>b.26. Index of Linguistic Diversity - Trends of linguistic diversity and numbers of speakers of indigenous languages</p> <p>b.27. Index of development of the standard- setting framework for the protection and promotion of culture, cultural rights and cultural diversity</p> <p>b.28. Cultural vitality index</p> <p>b.29. UNESCO Culture 2030 (multiple indicators)</p>
<p>Goal C The benefits from the utilization of genetic resources are shared fairly and equitably, with a substantial increase in both monetary and non-monetary benefits shared, including for the conservation</p>	<p>C.0.1 Indicator on monetary benefits received tbc*</p>	<p>Relevance: Need an indicator Nationally feasible: NA Globally feasible with national disaggregation: NA Readiness: NA Summary: Relevant, an indicator does not exist Most Parties stated that indicators on monetary and</p>		<p>c.1. Number of users that have provided information relevant to the utilization of genetic resources to designated checkpoints</p> <p>c.2. Total number of internationally recognized certificates published in the APB Clearing-House</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
<p>and sustainable use of biodiversity.</p> <p><i>Milestone C.1 The share of monetary benefits received by providers, including holders of traditional knowledge, has increased.</i></p> <p><i>Milestone C.2 Non-monetary benefits, such as the participation of providers, including holders of traditional knowledge, in research and development, has increased.</i></p>	<p>C.0.2 Indicator on non-monetary benefits tbc*</p>	<p>non-monetary benefits of ABS are needed in the framework. However, an indicator would need to be developed as the indicator does not exist. Some Parties noted the importance of capturing holders of traditional knowledge.</p> <p>Relevance: Need an indicator Nationally feasible: NA Globally feasible with national disaggregation: NA Readiness: NA Summary: Relevant, an indicator does not exist Most Parties stated that indicators on monetary and non-monetary benefits of ABS are needed in the framework. Some Parties noted that such an indicator may not be feasible in the case of non-monetary benefits. Some Parties noted the need to capture equity in this indicator.</p>		<p>c.3. Number of checkpoint communiqués published in the ABS Clearing-House</p> <p>c.4. Number of internationally recognized certificates of compliance for non-commercial purposes</p>
<p>Goal D The gap between available financial and other means of implementation, and those necessary to achieve the 2050 Vision is closed.</p> <p><i>Milestone D.1 Adequate financial resources to implement the framework are</i></p>	<p>D.0.1. Indicators on funding for implementation of the global biodiversity framework [available and ready to use] tbc (aligned with Target 19)*</p>	<p>Relevance: Need an indicator Nationally feasible: NA Globally feasible with national disaggregation: NA Readiness: NA Summary: Relevant, an indicator does not exist Most Parties stated that financial information is needed</p>		<p>d.1. Financial resources captured in the headline indicators for Target 18</p> <p>d.2. Finance mobilized for capacity-building</p> <p>[d.3. Financial and technical assistance provided in dollars (including through South-South,</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
<p><i>available and deployed, progressively closing the financing gap up to at least US \$700 billion per year by 2030.</i></p> <p><i>Milestone D.2 Adequate other means, including capacity-building and development, technical and scientific cooperation and technology transfer to implement the framework to 2030 are available and deployed.</i></p> <p><i>Milestone D.3 Adequate financial and other resources for the period 2030 to 2040 are planned or committed by 2030.</i></p>	<p>D.0.2 Indicator on national biodiversity planning processes and means of implementation including IPLC engagement tbc*</p>	<p>for goal D. Some Parties noted the need to capture all types of financing, finance planning, subsidies and capacity and technology transfer.</p> <p>Relevance: Need an indicator Nationally feasible: NA Globally feasible with national disaggregation: NA Readiness: NA Summary: Relevant, an indicator does not exist Many Parties suggested an indicator on NBSAP development would be useful. However, such an indicator would need to be developed.</p>		<p>North-South and triangular cooperation)]</p> <p>d.4. Finance mobilized for promoting the development, transfer, dissemination and diffusion of technology</p> <p>d.5. Number of scientists per population</p> <p>d.6. Joint scientific papers published (in Ocean Biodiversity Information System (OBIS)) by sector</p> <p>d.7. Number of marine monitoring stations</p> <p>d.8. Number of water quality monitoring stations</p> <p>d.9. Nationally maintained research vessels</p> <p>d.10. Proportion of total research budget allocated to research in the field of marine technology</p> <p>d.11. Volume of official development assistance flows for scholarships by sector and type of study</p> <p>d.12. Global imports of information and communication technology (ICT) goods as presented by bilateral trade flows by ICT goods categories</p>
<p>Target 1. Ensure that all land and sea areas globally are under integrated biodiversity-inclusive spatial planning</p>	<p>1.0.1 Indicator of the percentage of land and seas covered by [landscape-level] spatial [plans that</p>	<p>Relevance: Green/yellow Nationally feasible: yellow Globally feasible with national disaggregation: Red</p>	<p>1.2.1 Priority retention of intact / wilderness areas</p>	<p>t1.1. Number of countries using natural capital accounts in planning processes</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
addressing land- and sea-use change, retaining existing intact and wilderness areas.	integrate] [integral] biodiversity [plans] tbc*	<p>Readiness: Yellow</p> <p>Summary: Relevant, not fully operational</p> <p>Many Parties supported having an indicator on spatial planning; however, noted that this indicator would need development. Some Parties suggested this indicator could be a component level indicator. Some Parties noted to the need to capture the issue of habitat loss and land/sea change at the headline level. Some alternative headline indicators were proposed.</p>		<p>t1.2. Percentage of spatial plans utilizing information on key biodiversity areas</p> <p>t1.3. Habitat patches located within marine protected areas or integrated coastal zone management (ICZM)</p> <p>t1.4. Other spatial management plans (not captured as ICZM or marine spatial planning in 14.2.1)</p> <p>t1.5. Number of countries using ocean accounts in planning processes</p> <p>t1.6. Proportion of transboundary basin area with an operational arrangement for water cooperation (SDG indicator 6.5.2)</p> <p>t1.7. Percent of total land area that is under cultivation</p>
Target 2. Ensure that at least 20 per cent of degraded freshwater, marine and terrestrial ecosystems are under restoration, ensuring connectivity among them and focusing on priority ecosystems.	2.0.1 [Percentage][Area] of degraded [and] [or] converted ecosystems that are under [ecological] restoration	<p>Relevance: Green</p> <p>Nationally feasible: Yellow/red</p> <p>Globally feasible with national disaggregation: Red/yellow</p> <p>Readiness: Yellow/red</p> <p>Summary: Relevant, not fully operational</p> <p>Many Parties mentioned the need to capture restoration at the headline level. A few alternative indicators were proposed.</p>	2.2.1 Maintenance and restoration of connectivity of natural ecosystems	<p>t2.1. Habitat distributional range</p> <p>t2.2. Index of Species Rarity Sites, High Biodiversity Areas, Large Mammal Landscapes, Intact Wilderness and Climate Stabilization Areas</p> <p>t2.3. Increase in secondary natural forest cover</p> <p>t2.4. Annual Tropical Primary Tree Cover Loss</p> <p>t2.5. Forest Landscape Integrity Index</p> <p>t2.6. Global Ecosystem Restoration Index</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
				t2.7. Cumulative human impacts on marine ecosystems. t2.8. Physical damage to seafloor habitats t2.9. Free flowing rivers t2.10. Percentage of cropped landscapes with at least 10 % natural land t2.11. Bioclimatic Ecosystem Resilience Index (BERI)
Target 3. Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	3.0.1 [Percentage] [Coverage] of protected areas and OECMS, by effectiveness, [ecosystem type,] [KBA/EBSA status]	Relevance: Green/yellow Nationally feasible: green/yellow Globally feasible with national disaggregation: green/yellow Readiness: green/yellow Summary: Relevant, mostly ready to use While Parties noted the importance of tracking protected areas, many Parties stressed the need to capture effectiveness, implementation, representativeness and other aspects of protected area coverage. A few additional indicators were proposed.	3.2.1 Protected area coverage of key biodiversity areas [and/or ecologically or biologically significant areas](SDG 14.5.1, 15.1.2 and 15.4.1) 3.3.1 Protected Area Management Effectiveness (PAME) 3.4.1 Species Protection Index	t3.1. Protected area downgrading, downsizing and degazettement (PADDD) t3.2. Status of key biodiversity areas t3.3. Protected area coverage of key biodiversity areas t3.4. Protected area coverage of coral reefs t3.5. IUCN Green List of Protected and Conserved Areas t3.6. Number of hectares of UNESCO designated sites (natural and mixed World Heritage sites and Biosphere Reserves) t3.7. Proportion of terrestrial, freshwater and marine ecological regions which are conserved by protected areas or other effective area-based conservation measures t3.8. Species Protection Index

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
				t3.9. Protected Area Connectedness Index (PARC-Connectedness) t3.10. Ramsar Management Effectiveness Tracking Tool (R-METT) t3.11. Number of protected areas that have completed a site-level assessment of governance and equity (SAGE) t3.12. Number of certified forest areas under sustainable management with verified impacts on biodiversity conservation t3.13. Percentage of biosphere reserves that have a positive conservation outcome and effective management t3.14. Extent of indigenous peoples and local communities' lands that have some form of recognition
Target 4. Ensure active management actions to enable the recovery and conservation of species and the genetic diversity of wild and domesticated species, including through ex situ conservation, and effectively manage human-wildlife interactions to avoid or reduce human-wildlife conflict.	4.0.1 Proportion of species populations that are affected by human wildlife conflict [requiring intensive recovery due to human wildlife conflict]	Relevance: Yellow Nationally feasible: Red Globally feasible with national disaggregation: Red Readiness: Red Summary: Medium relevant, not fully operational Many Parties expressed that the indicators under this target depended on the final wording of the target. Additionally, many Parties expressed that	4.1.1 Green Status of Species Index	t4.1. Species threat abatement and restoration metric t4.2. IUCN Green Status of Species Index by sub-indicators t4.3. Changing status of evolutionary distinct and globally endangered species (EDGE Index) t4.4. Percentage of threatened species that are improving in status. t4.5. Number of CMS daughter agreements

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
	4.0.2 Number of plant [and animal] genetic resources [for food and agriculture] secured in medium or long-term conservation facilities (SDG 2.5.1)	<p>this indicator may not be feasible.</p> <p>Relevance: Yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Green/yellow Readiness: Green/yellow Summary: Medium relevant, mostly ready to use Many Parties expressed that this indicator would be more relevant with the inclusion of animal resources. This indicator is an existing SDG indicator. Some additional indicators were proposed by Parties for this target.</p>		
Target 5. Ensure that the harvesting, trade and use of wild species is sustainable, legal, and safe for human health.	5.0.1 Proportion of [wildlife] [wild species][wood and plant] that is harvested and traded legally and sustainably	<p>Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Green/yellow Summary: Relevant, not fully operational Many Parties felt this indicator could be operationalized even though it is not available yet. Some additional indicators were proposed.</p>		<p>t5.1. Sustainable watershed and inland fisheries index t5.2. Marine Stewardship Council Fish catch t5.3. Total catch of cetaceans under International Convention for the Regulation of Whaling t5.4. By catch of vulnerable and non-target species t5.5 Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1).</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
				<p>t5.6. Proportion of legal and illegal wildlife trade consisting of species threatened with extinction</p> <p>t5.7. Illegal trade by CITES species classification</p> <p>t5.8. Number of countries incorporating trade in their national biodiversity policy</p> <p>t5.9. The conservation status of species listed in the CITES Appendices has stabilized or improved</p> <p>t5.10. Implementation of measures designed to minimize the impacts of fisheries and hunting on migratory species and their habitats</p>
	<p>5.0.2 Proportion of fish stocks within biologically sustainable levels (SDG 14.4.1)</p>	<p>Relevance: Green</p> <p>Nationally feasible: Green/yellow</p> <p>Globally feasible with national disaggregation: Green/yellow</p> <p>Readiness: Green</p> <p>Summary: Relevant and ready to use</p> <p>Parties expressed that this indicator is relevant at the headline level. However, many Parties noted that a broader indicator capturing freshwater fish or other species would be relevant</p>		

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
<p>Target 6. Manage pathways for the introduction of invasive alien species, preventing, or reducing their rate of introduction and establishment by at least 50 per cent, and control or eradicate invasive alien species to eliminate or reduce their impacts, focusing on priority species and priority sites.</p>	<p>6.0.1 Rate of invasive alien species spread [and rate of impact]</p>	<p>Relevance: Yellow / Green if impact included* Nationally feasible: Yellow Globally feasible with national disaggregation: Green/yellow* Readiness: Yellow Summary: Relevant, mostly ready to use Some Parties note that this indicator should address the impact of invasive alien species and not only their spread. Alternative indicators were proposed by Parties.</p>	<p>6.3.1 Rate of invasive alien species impact</p>	<p>t6.1. Number of invasive alien species in national lists as per the Global Register of Introduced and Invasive Species t6.2. Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species</p>
<p>Target 7. Reduce pollution from all sources to levels that are not harmful to biodiversity and ecosystem functions and human health, including by reducing nutrients lost to the environment by at least half, and pesticides by at least two thirds and eliminating the discharge of plastic waste.</p>	<p>7.0.1 Index of coastal eutrophication potential (excess nitrogen and phosphate loading, exported from national boundaries) [by waterbody][by basin] (SDG 14.1.1a)</p>	<p>Relevance: Green/yellow Nationally feasible: Green/yellow Globally feasible with national disaggregation: Green/yellow Readiness: Green Summary: Medium relevant and mostly ready to use Some Parties felt that this indicator missed key aspects of eutrophication, including impacts on terrestrial ecosystems and proposed additional or alternative indicators. Other Parties felt that this indicator should be included at the headline level.</p>	<p>7.1.1 Fertilizer use 7.1.2 Proportion of domestic and industrial wastewater flow safely treated (SDG 6.3.1) 7.4.1 Municipal solid waste collected and managed (SDG 11.6.1) 7.4.2 Underwater noise pollution 7.4.3 Hazardous waste generation (SDG 12.4.2)</p>	<p>t7.1 Trends in Loss of Reactive Nitrogen to the Environment.</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
	7.0.2 Floating plastic debris density [by micro and macro plastics] (SDG 14.1.1b)	<p>Relevance: Yellow</p> <p>Nationally feasible: Yellow</p> <p>Globally feasible with national disaggregation: Yellow</p> <p>Readiness: Yellow</p> <p>Summary: Medium relevant, not fully operational</p> <p>Some Parties felt that other indicators related to impacts or other aspects of pollution would be better suited for use at the headline level. Other Parties supported the use of this indicator.</p>		
	7.0.3 [Most hazardous] Pesticide [use] [load] [per area of cropland]	<p>Relevance: Red/yellow</p> <p>Nationally feasible: Yellow</p> <p>Globally feasible with national disaggregation: Red</p> <p>Readiness: Yellow</p> <p>Summary: Less relevant, not fully operational</p> <p>While many Parties noted the need for either one indicator or a number of indicators to capture different types of pollution, many Parties noted that this indicator would not capture the impacts on biodiversity and that alternative indicators were needed Some Parties suggested that perhaps an alternative indicator which</p>		

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
		captures all of target 7 could be identified.		
<p>Target 8. Minimize the impact of climate change on biodiversity, contribute to mitigation and adaptation through ecosystem-based approaches, contributing at least 10 GtCO₂e per year to global mitigation efforts, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity.</p>	<p>8.0.1 National [net] greenhouse[emissions] [gas inventories] from land use and land use change [by land use and land use change category, subcategory, [and] natural/modified]</p>	<p>Relevance: High/low Nationally feasible: Green/yellow Globally feasible with national disaggregation: Green/yellow Readiness: Green Summary: Relevance cannot be assessed until the target is agreed. Many Parties noted that the indicator on this target will need to align with the final wording of the target. Some Parties were supportive of this indicator. However, some Parties did not believe that it was relevant to biodiversity and/or was outside the scope of the Convention. Several alternative indicators were suggested</p>	<p>8.1.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications that reflect biodiversity (based on information from UNFCCC and SDG 13.2.1) 8.2.1. Total climate regulation services provided by ecosystems by ecosystem type (System of Environmental Economic Accounts) 8.3.1 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai</p>	<p>t8.1. Above-ground biomass stock in forest (tonnes/ha) t8.2. Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 (SDG indicator 13.1.2) t8.3. Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies (SDG indicator 13.1.3) t8.4. Number of least developed countries and small island developing States with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications (SDG indicator 13.b.1)</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
			Framework for Disaster Risk Reduction 2015–2030 which include biodiversity (based on SDG 13.2.1)	
Target 9. Ensure benefits, including nutrition, food security, medicines, and livelihoods for people especially for the most vulnerable through sustainable management of wild terrestrial, freshwater and marine species and protecting customary sustainable use by indigenous peoples and local communities.	9.0.1 National environmental-economic accounts of benefits from the use of wild species	<p>Relevance: Yellow Nationally feasible: Yellow/Red* Globally feasible with national disaggregation: Yellow Readiness: Yellow/Red Summary: Medium relevant, not fully operational A number of Parties noted that this indicator would be difficult to operationalize at the national level and that an alternative indicator may be useful. Several alternative indicators were suggested</p>	<p>9.1.1 Number of people using wild resources for energy, food or culture (including firewood collection, hunting and fishing, gathering, medicinal use, craft making, etc.) 9.1.2 Percentage of the population in traditional employment (ILO) 9.1.3 Spawning stock biomass (related to commercially exploited species)</p>	<p>t9.1. Proportion of fish stocks within biologically sustainable levels (SDG indicator 14.4.1) t9.2. Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1) t9.3. Spawning stock biomass (related to commercially exploited species) t9.4. Number of plant and animal genetic resources for food and agriculture secured in medium- or long-term conservation facilities (SDG indicator 2.5.1) t9.5. Red List Index (species used for food and medicine) t9.6. Volume of production per labour unit by classes of farming/pastoral/ forestry enterprise size (SDG indicator 2.3.1)</p>
Target 10. Ensure all areas under agriculture, aquaculture and forestry are managed sustainably, in particular	10.0.1 Proportion of agricultural area under productive and sustainable	<p>Relevance: Green Nationally feasible: Green Globally feasible with national disaggregation: Green/yellow*</p>	10.1.1. Average income of small-scale food producers, by sex	t10.1. Changes in soil organic carbon stocks

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
through the conservation and sustainable use of biodiversity, increasing the productivity and resilience of these production systems.	agriculture (add SDG 2.4.1)	Readiness: Green/yellow Summary: Relevant, near ready to use The use of this SDG indicator as a headline level was supported by most Parties.	and indigenous status (SDG indicator 2.3.2) 10.3.1 Area of forest under sustainable management: total forest management certification by Forest Stewardship Council and Programme for the Endorsement of Forest Certification	t10.2. Red List Index (wild relatives of domesticated animals) t10.3. Red List Index (pollinating species) t10.4. Proportion of local breeds classified as being at risk of extinction t10.5. Progress towards sustainable forest management (SDG indicator 15.2.1)
	10.0.2 Progress towards sustainable forest management (Proportion of forest area under a long-term forest management plan) (add SDG 15.2.1(4))	Relevance: Green Nationally feasible: Green Globally feasible with national disaggregation: Green/yellow* Readiness: Green/yellow Summary: Relevant, near ready to use The use of this SDG indicator as a headline level was supported by most Parties. Some Parties suggested some further disaggregation of elements.		
Target 11. Maintain and enhance nature's contributions to regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people.	11.0.1 National environmental-economic accounts of regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people, [from ecosystems][to maintain or increase relevant ecosystem services]	Relevance: Yellow Nationally feasible: Yellow/Red* Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Medium relevant, not fully operational A number of Parties noted that this indicator would be difficult to operationalize at the national	11.1.1 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (SDG 11.6.2) 11.1.2 Mortality rate attributed to household and ambient air pollution (SDG indicator 3.9.1)	t11.1. Air emission accounts t11.2. Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management (SDG indicator 6.b.1) t11.3. Proportion of population using safely managed drinking water services (SDG indicator 6.1.1)

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
		level and that an alternative indicator may be useful.	11.2.1 Proportion of bodies of water with good ambient water quality (SDG 6.3.2) 11.2.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) (SDG indicator 3.9.2) 11.2.3 Level of water stress (SDG 6.4.2) 11.2.1. Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1)	
Target 12. Increase the area of, access to, and benefits from green and blue spaces, for human health and well-being in urban areas and other densely populated areas.	12.0.1 Average share of the built-up area of cities that is green/blue space for public use for all (SDG 11.7.1)	Relevance: Yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Green/yellow* Readiness: Yellow	12.2.1 National environmental-economic accounts of recreation and cultural services	

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
		<p>Summary: Medium relevant, not fully operational</p> <p>Many Parties expressed that this indicator may not be the most relevant for the target. However, other Parties noted its use in the SDG process. Some supported the indicator at the component level. A number of Parties suggested the Cities Biodiversity Index.</p>		
<p>Target 13. Implement measures at global level and in all countries to facilitate access to genetic resources and to ensure the fair and equitable sharing of benefits arising from the use of genetic resources, and as relevant, of associated traditional knowledge, including through mutually agreed terms and prior and informed consent.</p>	<p>13.0.1 [Percentage of countries that have] [Indicator[s] of] operational legislative, administrative or policy frameworks which [facilitate access to and] ensure fair and equitable sharing of benefits[, including those based on PIC and MAT] [shared in the ABS Clearing-House] tbc*</p>	<p>Relevance: Green*</p> <p>Nationally feasible: Yellow</p> <p>Globally feasible with national disaggregation: Yellow</p> <p>Readiness: Green*</p> <p>Summary: Relevant, not fully operational</p> <p>While this indicator would need to be developed, most Parties supported having an indicator on this topic noting that the final wording and methodology would need to be developed. Parties suggested a number of alternative indicators</p>	<p>13.1.1. Number of permits or their equivalents for genetic resources (including those related to traditional knowledge) by type of permit</p>	<p>t13.1. Total number of transfers of crop material from the Multilateral System of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) received in a country</p> <p>t13.2. Total number of permits, or their equivalent, granted for access to genetic resources</p> <p>t13.3. Total number of internationally recognized certificates of compliance published in the ABS Clearing-House</p> <p>t13.4. Number of countries that require prior informed consent that have published legislative, administrative or policy measures on access and benefit-sharing in the ABS Clearing-House</p> <p>t13.5. Number of countries that require prior informed consent that have published information on ABS</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
				<p>procedures in the ABS Clearing-House</p> <p>t13.6. Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits (SDG Indicator 15.6.1)</p> <p>t13.7. Estimated percentage of monetary and non-monetary benefits directed towards conservation and sustainable use of biodiversity</p>
<p>Target 14. Fully integrate biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies, accounts, and assessments of environmental impacts at all levels of government and across all sectors of the economy, ensuring that all activities and financial flows are aligned with biodiversity values.</p>	<p>14.0.1 Extent to which national targets [have been adopted] for integrating biodiversity values [as cornerstones for implementation] into policies, regulations, planning, development processes, poverty reduction strategies [and accounts] [are established] at all levels, ensuring that biodiversity values are mainstreamed across all sectors and integrated into assessments of environmental impacts</p>	<p>Relevance: Green/yellow* Nationally feasible: Green Globally feasible with national disaggregation: Yellow* Readiness: Green Summary: Relevant not fully operational Some Parties expressed support and noted its link to the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. Some Parties proposed that the indicator would be acceptable with some modifications, but some Parties did not support the use of the indicator.</p>	<p>14.3.1 Existing legislation for environmental impact assessment Tbc (will align with the Task Force for Nature-related Financial Disclosures)</p>	<p>t14.1. Human Appropriation of Net Primary Production (HANPP) t14.2. Number of MSC Chain of Custody Certification holders by distribution country</p>
	<p>14.0.2 [Number of countries with] Implementation of the System of Environmental-</p>	<p>Relevance: Yellow* Nationally feasible: Green</p>		

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
	Economic Accounting [(SDG 15.9.1b)]	<p>Globally feasible with national disaggregation: Yellow*</p> <p>Readiness: Green</p> <p>Summary: Medium, not fully operational</p> <p>Some Parties noted that this indicator could be moved to the component level or revised in order to be more relevant.</p> <p>Other Parties supported using SDG indicator 15.9.1b.</p>		
Target 15. All businesses (public and private, large, medium and small) assess and report on their dependencies and impacts on biodiversity, from local to global, and progressively reduce negative impacts, by at least half and increase positive impacts, reducing biodiversity-related risks to businesses and moving towards the full sustainability of extraction and production practices, sourcing and supply chains, and use and disposal.	15.0.1 [Number of companies assessing and reporting on their][Quantified volumes of] Dependencies [and] impacts[, risks and opportunities] of businesses on biodiversity [and related human rights]	<p>Relevance: Green</p> <p>Nationally feasible: Yellow</p> <p>Globally feasible with national disaggregation: Yellow</p> <p>Readiness: Red</p> <p>Summary: Relevant, not fully operational</p> <p>Most Parties felt that an indicator on dependencies and impacts was relevant; however, such an indicator would need to be further defined and elaborated. Parties suggested a number of adjustments to the indicator and/or alternative indicators</p>	<p>Tbc (will align with the Task Force for Nature-related Financial Disclosures)</p> <p>15.4.1 Ecological footprint</p> <p>15.4.2 Recycling rate</p>	<p>t15.1. CO₂ emission per unit of value added (SDG indicator 9.4.1)</p> <p>t15.2. Change in water-use efficiency over time (SDG indicator 6.4.1)</p>
Target 16. Ensure that people are encouraged and enabled to make responsible choices and	16.0.2 Material footprint per capita (SDG 8.4.1/12.2.1)	<p>Relevance: Yellow</p> <p>Nationally feasible: Green/yellow</p>	<i>(15.4.2 Recycling rate)</i>	

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
<p>have access to relevant information and alternatives, taking into account cultural preferences, to reduce by at least half the waste and, where relevant the overconsumption, of food and other materials.</p>		<p>Globally feasible with national disaggregation: Green/yellow Readiness: Green Summary: Mostly relevant and ready to use While this indicator is available through the SDG process, some Parties noted that a more relevant indicator could be selected. A number of Parties suggested the ecological footprint or other indicators.</p>		
	<p>16.0.1 Food waste index (SDG 12.3.1b)</p>	<p>Relevance: Yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Mostly relevant, not fully operational Some Parties suggested that additional indicators on waste or other aspects of the target should be captured and that this could be a component indicator. Other Parties supported the use of this indicator at the headline level. A number of alternative indicators were proposed for this target.</p>		

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
<p>Target 17. Establish, strengthen capacity for, and implement measures in all countries to prevent, manage or control potential adverse impacts of biotechnology on biodiversity and human health, reducing the risk of these impacts.</p>	<p>17.0.1 Indicator of [capacity and] measures in place to [prevent] manage [or] [and control] potential [adverse] impacts of [LMOs and other products from the sustainable use of biodiversity] [LMOS resulting from modern] biotechnology on biodiversity taking into account [conservation] [cultural and social economic considerations and] human health [and environment safety] tbc*</p>	<p>Relevance: Green/yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Relevant, not fully operational While this indicator would need to be developed, most Parties supported having an indicator on this topic noting that the final wording and methodology would need to be developed. Many Parties suggested changes to the wording of this indicator.</p>	<p>17.1.1 Number of countries that carry out scientifically sound risk assessments to support biosafety decision-making 17.1.2 Number of countries that establish and implement risk management measures 1.7.1.3 Percentage of countries with mechanisms to facilitate the sharing of and access to information on potential adverse impacts of biotechnology on biodiversity and human health 17.1.4 Percentage of counties with systems in place for restoration and compensation of damage to conservation and sustainable use of biological diversity</p>	<p>t17.1. Number of countries that have the necessary biosafety legal and administrative measures in place t17.2. Number of countries that implement their biosafety measures t17.3. Number of countries that have the necessary measures and means for detection and identification of products of biotechnology t17.4. Number of countries that carry out scientifically sound risk assessments to support biosafety decision-making t17.5. Number of countries that establish and implement risk management measures t17.6. Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol t17.7. Number of countries with legal and technical measures for restoration and compensation t17.8. Percentage of Parties to the Nagoya – Kuala Lumpur Supplementary Protocol implementing the relevant provisions of the Supplementary Protocol</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
<p>Target 18. Redirect, repurpose, reform or eliminate incentives harmful for biodiversity, in a just and equitable way, reducing them by at least US\$ 500 billion per year, including all of the most harmful subsidies, and ensure that incentives, including public and private economic and regulatory incentives, are either positive or neutral for biodiversity.</p>	<p>18.0.1 [Percentage reduction in] [Value of] subsidies and other incentives harmful to biodiversity, that are [redirected, repurposed or][consistent with WTO rules] [or] eliminated [as a proportion of total subsidies]</p>	<p>Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Relevant, not fully operational Many Parties noted the need for an indicator on both subsidies and positive incentives. Many Parties suggested the use of the indicator 18.1.1 The OECD noted that the correct wording of this indicator and this is reflected. A number of other indicators were suggested.</p>	<p>18.1.1 [Positive incentives] [Economic incentives in place to promote biodiversity conservation and sustainable use]</p>	<p>t18.1. Number of countries with biodiversity-relevant taxes t18.2. Number of countries with biodiversity-relevant charges and fees t18.3. Number of countries with biodiversity-relevant tradable permit schemes t18.4. Trends in potentially environmentally harmful elements of government support to agriculture (producer support estimate) t18.5. Trends in the number and value of government fossil fuel support measures t18.6. Amount of fossil-fuel subsidies per unit of GDP (production and consumption) (SDG indicator 12.c.1)</p>
<p>Target 19. Increase financial resources from all sources to at least US\$ 200 billion per year, including new, additional and effective financial resources, increasing by at least US\$ 10 billion per year international financial flows to developing countries, leveraging private finance, and increasing domestic resource mobilization, taking into account national biodiversity finance planning, and</p>	<p>19.0.1 Official development assistance for biodiversity (SDG 15.a.1)</p>	<p>Relevance: Green Nationally feasible: Green Globally feasible with national disaggregation: Green Readiness: Green Summary: Relevant and ready to use This indicator was supported by most Parties. However, a number of Parties noted the need to capture domestic and international public and private expenditure, either as a single</p>		<p>t19.1. Amount of funding provided through the Global Environment Facility and allocated to the biodiversity focal area (decision X/3) t19.2. Amount and composition of biodiversity-related finance reported to the OECD Creditor reporting system t19.3. Dollar value of financial and technical assistance (including through North-South, South-South</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
strengthen capacity-building and technology transfer and scientific cooperation, to meet the needs for implementation, commensurate with the ambition of the goals and targets of the framework.		indicator disaggregated by domestic/international and public/private or as four indicators. Some alternative indicators were proposed.		and triangular cooperation) committed to developing countries t19.4. Dollar value of all resources made available to strengthen statistical capacity in developing countries (SDG indicator 17.19.1) t19.5. Amount of biodiversity-related philanthropic funding t19.6. Proportion of total research budget allocated to research in the field of marine technology t19.7. Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies (SDG indicator 17.7.1)
	19.0.2 Public [funding] [expenditure] and private [funding] [expenditure] on conservation and sustainable use of biodiversity and ecosystems [as well as development and access to innovation, technology transfer and research on innovation]	Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow/Red Readiness: Yellow Summary: Relevant, not fully operational While Parties noted that this indicator is less feasible, especially for private funding, most Parties expressed support for capturing these elements of funding.		
Target 20. Ensure that relevant knowledge, including the traditional knowledge, innovations and practices of indigenous peoples and local communities with their free, prior, and informed consent, guides decision-making for the effective management of biodiversity, enabling monitoring, and by promoting awareness, education and research.	20.0.1 Indicator on biodiversity information and monitoring, including traditional knowledge [with FPIC][and scientific knowledge], for management tbc*	Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Green Summary: Relevant, not fully operational While this indicator would need to be developed, most Parties supported having such an indicator on information and monitoring, including on traditional knowledge. Some	20.2.1 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b)	t20.1. Growth in number of records and species in the Living Planet Index database t20.2. Growth in marine species occurrence records accessible through OBIS* t20.3. Proportion of known species assessed through the IUCN Red List. t20.4. Number of assessments on the IUCN Red List of threatened species t20.5. World Association of Zoos and Aquariums (WAZA) bio-

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
		additional indicators were proposed.	curricula, (c) teacher education and (d) student assessments (SDG 4.7.1)	literacy survey (Biodiversity literacy in global zoo and aquarium visitors)
<p>Target 21. Ensure equitable and effective participation in decision-making related to biodiversity by indigenous peoples and local communities, and respect their rights over lands, territories and resources, as well as by women and girls, and youth.</p>	<p>21.0.1 [Mechanisms for the full, equitable participation of] [Indicator on [the degree to which]] indigenous peoples and local communities [respecting all their rights in particular of land, waters and resources], women and girls [in all their diversity] as well as youth [and human rights defenders] participate[ion] in decision-making related to biodiversity tbc</p>	<p>Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Relevant, not fully operational Parties noted that this indicator would need to be defined and proposed a number of changes to the indicator wording. Some alternative indicators were proposed.</p>		<p>t21.1. Percentage of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group (SDG indicator 16.7.2). t21.2. Percentage of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups t21.3. Proportion of seats held by women in (a) national parliaments and (b) local governments (SDG indicator 5.5.1) t21.4. Number of countries with systems to track and make public allocations for gender equality and women’s empowerment (SDG indicator 5.c.1) t21.5. (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure</p>

Goal/Milestone/Target ⁹	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
				t21.6 Number of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control
	21.0.2 [Land use change and] Land tenure [in the traditional territories] of indigenous peoples and local communities [by sex and type of tenure]	<p>Relevance: Green</p> <p>Nationally feasible: Yellow</p> <p>Globally feasible with national disaggregation: Yellow</p> <p>Readiness: Yellow</p> <p>Summary: Relevant, not fully operational</p> <p>Many Parties suggested the use of land use and land tenure indicators for target 21 and other targets across the framework. Noting that indicator would require further work to be fully operational.</p>		

Appendix 2

**LIST OF PROPOSED INDICATORS FOR POTENTIAL INCLUSION AS HEADLINE
INDICATORS FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK**

Table 1. Alternative or additional indicators suggested for draft Goals

1. Draft Goal	2. Indicator proposed from the Contact Group	3. Links to previous non-paper and the SDG framework
A	Change in the extent of water-related ecosystems over time	Complementary indicator a.11 (SDG indicator 6.6.1)
	Comprehensiveness of conservation of socioeconomically as well as culturally valuable species.	Complementary indicator a.51
	Conservation status of migratory species (disaggregated from existing indices), as a proxy indicator of connectivity (CMS Indicator)	Component indicator A.2.1
	Ecosystem Integrity Index	Component indicator A.3.1
	Ecosystem Intactness Index	Component indicator A.32
	Changing status of evolutionary distinct and globally endangered species (EDGE Index)	Complementary indicator a.40
	Forest area as a proportion of total land area	Complementary indicator a.1 (SDG indicator 15.1.1)
	Live coral cover in restored coral reef areas.	Complementary indicator a.13
	Living Planet Index (LPI)	Component indicator A.4.2
	Marine habitat indicator	
	Proportion of populations maintained within species	Component indicator A.8.1
	Red list of Ecosystems	Complementary indicator a.8.
	UN SEEA on ecosystem condition Proportion of genetically distinct populations maintained within species. Extent of selected natural ecosystems (i.e. forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats) Extent of selected semi-natural ecosystems (i.e. forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats) Extent of selected modified ecosystems (i.e. forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats) Extent of sustainably managed ecosystems UN SEEA ecosystem condition	

	Ecosystem intactness index and connectivity The proportion of genetically distinct populations maintained within species	
B	Change in the extent of water-related ecosystems over time	Complementary indicator (SDG indicator 6.6.1)
	Ecological footprint	Component indicator 15.4.1
	Expected loss of Phylogenetic Diversity	Complementary indicator b.1 (IPBES assessment phylogenetic diversity indicator)
	National and local level implementation on customary and sustainable use	
	Number of countries with national constitution or legislation recognizing a right to a healthy environment	
	Percentage of use of biological diversity that is sustainable	
	Processes and tools to monitor the implementation of a right to a healthy environment (e.g., included in NBSAPs and reported in national reports)	
	Sustainable agricultural production	Headline indicator 10.0.1 Proportion of agricultural area under productive and sustainable agriculture (SDG indicator 2.4.1)
	Progress towards sustainable forest management (Proportion of forest area under a long-term forest management plan)	Headline indicator 10.0.2 (SDG indicator 15.2.1)
C	Amount of monetary benefits received under access and benefit-sharing agreements and - allocated to conservation and sustainable use of biodiversity Amount of monetary benefits received under specialized ABS instruments	
	Amount of monetary benefits received by countries from the utilization of genetic resources and their derivatives, as result of an access and benefit-sharing agreement, including its associated traditional knowledge and innovations	
	Amount of monetary benefits received by countries from the utilization of genetic resources and their derivatives, channelled to indigenous peoples and local communities for their stewardship of biodiversity	
	Amount of non-monetary benefits generated under access and benefit-sharing agreements	
	Amount of non-monetary benefits generated under other specialized agreements,	
	Amount of non-monetary benefits generated for implementation of the SDGs	

	Fairness and equity of the allocation of benefits	
	Indicator on participation of holders of indigenous knowledge regarding the use of access and benefit sharing	
	Indicators of operational legislative, administrative or policy frameworks which ensure fair and equitable sharing of benefits, including those based on prior informed consent and mutually agreed terms	Headline indicator 13.0.1
	Non-monetary benefits generated under access and benefit-sharing agreements	
	Number of applications for prior informed consent and mutually agreed terms	
	Number of consulted and benefited communities through APV	
	Number of joint research papers from access and benefit sharing agreements contributing to conservation and sustainable use	
	Number of non-monetary benefits shared under access and benefit sharing agreements as a result of utilization of genetic resources, their derivatives and its associated traditional knowledge, practices and innovations, aimed at the conservation and sustainable use of biodiversity, human well-being, and the strengthening of technical, scientific and human capabilities of Parties	
	Technical transfer related to access and benefit-sharing indicator	
D	Alignment of all public and private financial flows with the goals and targets of the global biodiversity framework	
	Efficient use of financial resources for biodiversity	
	Funding for implementation of the global biodiversity framework available and ready to use	
	Funding for implementation of the global biodiversity framework from all sources	
	Indicator on capacity	
	Indicator on subsidies	
	Indicator related to equity	
	Number of countries with National Biodiversity Finance Plans	
	National and local implementation of the Global Plan of Action on Customary Sustainable Use	
	Number of Parties that have processes and tools to measure the right to a healthy environment	

Table 2. Alternative or additional headline indicators suggested for draft targets 1 – 21.

1. Draft Target	2. Proposed alternative or additional headline indicator	3. Links to previous non-paper and the SDG framework
1	Area covered by land and sea use change that is negatively affecting biodiversity	
	Extent of selected natural and modified ecosystems (i.e. forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae, intertidal habitats and alpine habitats)	Headline indicator A.0.1.
	Habitat loss due to land and sea-use change	
	Status and trends in land-use change and land tenure in the traditional territories of indigenous peoples and local communities	
2	Global Ecosystem Restoration Index	Complementary indicator T2.6.
	Percentage of area of degraded or converted carbon-rich ecosystems that are under ecological restoration	
3	Coverage and effectiveness of protected areas and other effective area-based conservation measures	
	Coverage and effectiveness of protected areas and other effective area-based conservation measures including extent to which they prohibit harmful activities	
	Coverage of protected areas and other effective area-based conservation measures in accordance with the human rights approach	
	Coverage of protected areas and other effective area-based conservation measures and traditional territories (by governance type)	
	Diversity of governance types and effectiveness in biodiversity conservation	
	Number of countries implementing national legislation, policies or other measures regarding free, prior and informed consent related to conservation	
	Extent of IPLC land and waters that have a form of recognition of tenure	Headline indicator 21.0.1 Indicator on the degree to which indigenous peoples and local communities, women and girls as well as youth participate in decision-making related to biodiversity
	Indicator associated with The Global Standard for the IUCN Green List of Protected and Conserved Areas	Complementary indicator: t3.5. IUCN Green List of Protected and Conserved Areas

	Indicator on protected area governance	Complementary indicator 3.11. Number of protected areas that have completed a site-level assessment of governance and equity (SAGE)
	Number of people who receive training on human rights in relation to protected and conserved areas	
	Protected Area coverage of Key Biodiversity Areas	Component indicator: 3.2.1 (SDG indicators 14.5.1 and 15.1.2)
	Protected Area Management Effectiveness (PAME) (Protected Planet)	Component indicator 3.3.1
	Protected Connected (Protconn) index	Component indicator 3.1.4.
	Species Protection Index	Component indicator 3.4.1 Species Protection Index
	The number of people to with increased awareness of their rights.	Complementary indicator Goal b.27. Index of development of the standard-setting framework for the protection and promotion of culture, cultural rights and cultural diversity
4	Green Status of Species Index	Component Indicator 4.1.1
	Human wildlife conflict indicator	Headline indicator 4.0.1 Proportion of species populations that are affected by human wildlife conflict
	Number of plant and animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities	Complementary indicator t9.4. Number of plant and animal genetic resources for food and agriculture secured in medium- or long-term conservation facilities (SDG indicator 2.5.1)
	Proportion of genetically distinct populations within species with a genetically effective population size > 500 Proportion of genetically distinct populations maintained within species.	Headline indicator A.0.4
	Proportion of species populations known to be negatively affected by human-wildlife conflict that have recovered	
	Proportion of species requiring intensive recovery actions to avoid extinction that are under active recovery management	
	Red List Index	Headline indicator A.0.3 (SDG Indicator 15.5.1)

5	Adoption of measures to reduce illegal use	
	Extent to which commercial exploitation and domestic and international trade threatens human or animal health	
	Extent to which legal, illegal or otherwise permitted trade or use of wildlife (terrestrial and marine species) is ecologically sustainable	
	Living Planet Index	Component Indicator A.4.2
	Proportion of local breeds classified as being at risk of extinction	Complementary indicator a.53. (SDG indicator 2.5.2)
	Proportion of traded wildlife that was poached or illicitly trafficked	Component indicator 5.2.1. (SDG indicators 15.7.1 and 15.c.1)
	Proportion of wildlife (terrestrial and marine species) that are used or exploited in any way that is illegal, including illegal domestic and international trade	Component indicator 5.2.1.(SDG indicators 15.7.1 and 15.c.1)
	Red list index on impacts of use	Headline indicator A.0.3 (SDG Indicator 15.5.1)
	Red list index on the impacts of fisheries	Headline indicator A.0.3 (SDG Indicator 15.5.1)
	Red List of the conservation status and trends for species that are or may be exploited commercially, including, but not limited to, those potentially in international trade, and the inclusion of species on the CITES and CMS Appendices as headline indicators	A.0.3 Red List Index (for internationally traded species and for migratory species) (SDG indicator 15.5.1.)
	Sustainability of use of all species	
	The adoption of legislation and regulations to prohibit trade and markets in certain taxonomic groups, like birds and mammals (due to the nature of the risk of pathogen spill over, that cannot be measured on a species-by-species basis).	
	Tonnage or number of individuals of wildlife that is harvested and traded illegally and unsustainably	Headline indicator 5.0.1
Zoonotic diseases in wildlife	Complementary indicator Goal b.6.	
6	Extent to which measures are in place and implemented to address invasive alien species	
	Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species	Complementary indicator t5.2 (SDG indicator 15.8.1)
	Rate of introductions, spread and impact of alien invasive species	Component indicator 6.1.1. Numbers of invasive alien species introduction events
	Red List Index (impacts of invasive alien species)	Component Indicator 6.3.3, SDG Indicator 15.5.1

	Trends in pathway management of invasive alien species	
	Trends in the impacts of invasive alien species on native species and protected areas	6.3.3. Red List Index (impacts of invasive alien species)
	Trends in the numbers of invasive alien species introduction events	Component indicator 6.1.1. Numbers of invasive alien species introduction events
7	Amount and risks from microplastics in water	
	Critical loads / toxic of nutrification and atmospheric nitrogen deposition	
	Eutrophication of terrestrial, coastal and marine waters	
	Impacts of light and noise pollution	
	Impact of pollution on biodiversity and ecosystem functions as identified in the IUCN Red List Index of Ecosystems and the IUCN Red List of Threatened Species	
	Name, amount/volume/concentration of highly hazardous pesticides by type (per land/marine area)	
	Number of countries that have phased out highly hazardous pesticides	
	Percentage of Parties that establish and implement risk management and mitigation measures that mitigate offsite movement of chemicals, that are harmful to the environment, to edge-of-field waterbodies and terrestrial habitats	
	Proportion of land at or below critical nitrogen deposition load levels	
	Red List Index	A.0.3 Red List Index (SDG indicator 15.5.1.)
	Red List of Ecosystems Index	Complementary indicator a.8.
	Toxicity or toxic load of pesticides	
Use and risk of pesticide indicator (by risk category for biodiversity)		
8	Bioclimatic Ecosystem Resilience Index	Complementary indicator a.30 and t.2.11
	Carbon stock in natural habitats by habitat type	
	Contribution of intact ecosystems to carbon storage	
	Indicator on impact of climate change on biodiversity	
	Indicator on measuring the minimization of impact of climate change on biodiversity	
	Land use change and land tenure in the traditional territories of indigenous peoples and local communities by sex and type of tenure	

	Number of countries implementing safeguard policies on biodiversity and finance	
	Number of countries that have integrated biodiversity into Nationally Determined Contributions	
	Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications that reflect biodiversity (based on information from UNFCCC)	Component indicator 8.1.1 (SDG indicator 13.2.1)
	Number of ecosystem-based adaptation (EBA) initiatives in NBSAPs	
	Number of endemic and priority species vulnerable to climate change	
	Number of initiatives and partnerships with indigenous peoples and local communities contributing to Nationally Determined Contributions and Disaster Risk Reduction strategies	
	Percentage of agricultural system that are positive for the climate	
	Restoration of carbon rich habitats	
	Sequestration of carbon by blue carbon initiatives	
	Status and trends in land-use change and land tenure in the traditional territories of indigenous peoples and local communities;	
	Trends in extent and condition of carbon rich ecosystems or areas providing carbon sequestration	
9	Measures of progress of implementation of the Tasks in the Plan of Action on Customary Sustainable Use of Biodiversity	
	Number of national instruments established to address or combat illegal, unreported and unregulated fishing	Complementary indicator t5.5 Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1).
	Number of people using wild resources for energy, food, or culture	
	Number of species and habitats under sustainable management	
	Proportion of fish stocks within biological sustainable levels	Headline indicator 5.0.2 (SDG indicator 14.4.1)
	Red List Index	Headline indicator A.0.3, SDG 15.5.1
	Status and trends in the practice of traditional occupations labour statistics	Component indicator d9.1.2 Percentage of the population in traditional employment

	Trends in harvested species under biologically sustainable levels	Headline indicator 5.0.1 Proportion of wildlife that is harvested and traded legally and sustainably
	Trends in in conservation status of vulnerable species	
	Zoonotic and human-animal interface index	
10	Average income of small-scale food producers, by sex and indigenous status	(SDG indicator 2.3.2)
	Proportion of land that is degraded over total land area	Component indicator 10.4.2 (SDG indicator 15.3.1)
	Area dedicated to agroecology and other biodiversity conservation and restoration plans	
	Area incorporated into restoration, conservation and sustainable land use programs	
	Area managed under organic and sustainable forestry certification schemes	Complementary indicator t3.12. Number of certified forest areas under sustainable management with verified impacts on biodiversity conservation
	Areas under sustainable management in all sectors	
	Number of non-timber exploitation permits.	
	Progress towards sustainable forest management	Complementary indicator t10.5. (SDG indicator 15.2.1)
	Use of agro-biodiversity-supportive practices	
	Proportion of new conversion of land from natural to cultivated areas	
Proportion of productive area with targeted environmental safeguard for biodiversity		
Wildlife habitat capacity within agricultural landscapes		
11	Indicators on nature-based solutions	
	The share of investments made in development projects to promote ecosystem-based approaches to improve air and water quality and protection against risks	
	Trends in loss of land	
	Trends in water quality and quantity	Complementary indicator t.11. Change in the extent of water-related ecosystems over time (SDG indicator 6.6.1)
	Trends of ecosystem areas providing regulation ecosystem services (to be decomposed by ecosystem services and ecosystems)	

12	City Biodiversity Index (Singapore Index)	
	Structural and functional connectivity of urban areas	
13	Number of prosecutions from biopiracy, or illegal access to genetic resources	
14	Dependencies and impacts of businesses on biodiversity	Headline indicator 15.0.1
	Number of policies in sectors other than biodiversity that integrate biodiversity values and priorities	
	Number or share of countries, local government and private companies integrating biodiversity and ecosystem service into their policy action plans of environmental management system (i.e. ISO 14001) or commitments relevant to concrete actions	
	The number of countries that adopt nature positive sectoral plans of action	
	The number of countries that apply a whole-of-government and whole-of-society approach for the development, reviews, and implementation of the NBSAPs	
	Value of subsidies and other incentives harmful to biodiversity, that are redirected, repurposed or eliminated Proportion of policies, regulations, planning, budgeting, development processes, poverty reduction strategies, and national accounts at all levels that integrate biodiversity targets to ensure mainstreaming biodiversity values across all sectors.	Headline indicator 18.0.1
15	Dependencies and impacts of businesses on biodiversity and related human rights	
	Ecological footprint	Component indicator 15.4.1
	Extent of natural vegetation/terrestrial ecosystems converted due to commodity/soft production	
	Indicator on dependencies, impacts, risks, and opportunities from the Taskforce on Nature-related Financial Disclosures (TNFD)	
	Number of companies assessing and reporting on their net impact on biodiversity	
	Number of companies publishing sustainability reports	(SDG Indicator 12.6.1.)
	Number of companies that comply with access and benefit-sharing requirements and report on these	
	Number of countries that have legislation to make sure that companies report on their impacts	
	Number of production sectors in each country that use biodiversity includes certification schemes or biodiversity practice guidelines	
Percentage of Parties that have regulatory frameworks that require businesses to assess and report their impact on		

	biodiversity and on the rights of indigenous peoples and local communities	
	Policies and measures in place that prevent and regulate impacts on biodiversity and biodiversity related human rights.	
	Proportion of total revenue, of business (a) assessing and disclosing material biodiversity impacts and dependencies of their operations and supply chains through quantitative metrics; (b) having set science-based targets for nature; and (c) having set science-based targets for climate	
	Proportion per total revenue of total businesses reporting dependencies and impacts for biodiversity and having set science-based targets for nature	
	Biodiversity Barometer	
	Ecological footprint	Component indicator 15.4.1
	Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	Component indicator 20.2.1 (SDG indicator 4.7.1)
	Global environmental impacts of consumption	
	(a) Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment	Component 7.1.2 Proportion of domestic and industrial wastewater flow safely treated (SDG indicator 6.3.1)
	Land footprint per kilogram of protein	
16	Number of CITIES permits for legal import of trophies for listed species	
	Number of countries developing, adopting, or implementing policy instruments aimed at supporting the shift to sustainable consumption and production	(SDG Indicator 12.1.1)
	Percentage of Parties that have established effective regulatory frameworks and other measures to ensure that consumer choices are within sustainable parameters	
	Progress towards healthy and sustainable diets (food consumption survey, land footprint per kilogram of protein)	
	Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size	Complementary indicator t9.6. Volume of production per labour unit by classes of farming/pastoral/ forestry enterprise size (SDG indicator 2.3.1)
17	Biotechnology development that are being used that contribute to conservation and sustainable uses of biodiversity as well as human well-being	

	Capacity and measures in place to prevent, manage and control adverse impacts of biotechnology	
	Indicator of measures in place to prevent, manage and control potential adverse impacts of biotechnology on biodiversity taking into account human rights, human health and social and cultural considerations	
	Indicator on the establishment or maintenance of the means to regulate, manage, or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health;	
	Number of countries that carry out scientifically sound assessments on the release of LMOs resulting from application of modern biotechnology and recombinant DNA techniques	
	Number of countries that have the necessary measures in place to carry out horizon scanning monitoring and assessment	
18	Amount of financial savings channelled to indigenous peoples and local communities, women and other vulnerable groups	
	Indicator on subsidy reform	
	Number of economic measures in place to protect biodiversity	
	Payment of ecosystem services	
	Positive incentives (by type) in place to promote biodiversity conservation and sustainable use	
	Total value of harmful subsidies compared with the value of subsidies that have been redirected, repurposed or eliminated	
19	Amount of funds provided for the global multilateral benefit-sharing mechanism	
	Amount of targeted, additional and economically sustainable financial flows, including ODA, grants and concessional loans for nationally determined biodiversity objectives	
	Domestic and international public and private flows for biodiversity	
	Earmarked biodiversity funding at all levels for indigenous peoples and local communities as a percentage of overall public and private flows	
	Foreign direct investment, official development assistance and South-South cooperation as a proportion of gross national income	(SDG Indicator 17.3.1)
	Indicator that measures alignment of private and public financial flows on biodiversity	

	Number of national biodiversity finance plans or similar instruments	
	Public expenditure and private expenditure on conservation and sustainable use of biodiversity and ecosystems as well as development and access to innovation, technical transfer and resource collaboration.	
	Ratio of debt servicing to government spending	
	The amount of grants to indigenous peoples and local communities for conservation services	
	The number of expressed priority needs for capacity building and development, technological/technical development for the global biodiversity framework submitted by developing countries in the clearing-house mechanisms that have received the capacity and development, technological/technical development requested	
	Value of commercialization of natural products	
	Value of debt for nature swaps	
	Degree to which traditional knowledge of indigenous peoples and local communities is promoted and widely applied in policy making, planning and decision making/ implementation for biodiversity	
	Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessments	Component indicator 20.2.1 (SDG indicator 4.7.1)
	Extent to which biodiversity is included in education	
20	Extent to which national biodiversity strategies and action plans, Nationally Determined Contributions and national development plans reflect traditional knowledge, innovation and practices with appropriate safeguards	
	Growth in number of records in the Global Biodiversity Information Facility	Complementary indicator
	Indicator on free prior and informed requests to indigenous peoples and local communities	
	Number of assessments in The IUCN Red List of Threatened Species	
	Proportion of public policies based on biodiversity information and monitoring	
21	(a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights bearers of agricultural land, type of tenure	Complementary indicator t21.5 (SDG indicator 5.a.1)
	Ensuring women's legal rights to land ownership and/or control	(SDG indicator 5.a.2)

	Number of countries that recognize indigenous peoples and local communities in their national biodiversity strategies and action plans	
	Number of countries that recognize the right to a healthy environment through their constitutions, legislation or as parties to legally binding regional treaties	
	Number of countries where the legal framework respects/guarantees the rights of indigenous peoples, women and girls, over their land, waters and resources, in relation to biodiversity planning and decision-making	
	Number of countries with a gender focal point	
	Number of environmental defenders killed	
	Number of mechanisms for the full equitable and informed consent in decision-making, established, enhanced and implemented	
	Number of Parties for which national reports and/or national biodiversity strategies and action plans include gender considerations	
	Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group	(SDG indicator 16.7.2)
	Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure	(SDG Indicator 1.4.2)
	Secure access and use of waters for indigenous peoples and local communities, particularly women and youth	
	Trends in equitable participation in biodiversity-related decision making disaggregated by indigenous peoples and local communities, women and girls, youth	
	Trends in land-use change and secure land tenure in the traditional territories of indigenous peoples and local communities Mechanisms for the full, equitable and effective participation of indigenous peoples and local communities, women and youth established, implemented and enhanced	

24/3. Programme of work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

The Subsidiary Body on Scientific, Technical and Technological Advice *recommends* that the Conference of the Parties at its fifteenth meeting adopt a decision along the following lines, complementing the draft decision contained in recommendation 23/1:

The Conference of the Parties,

Recalling decisions XII/25 and 14/36,

Also recalling that the Subsidiary Body on Scientific, Technical and Technological Advice has systematically considered the assessment reports prepared by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, which represent best available knowledge on the matter, and has provided pertinent recommendations for the consideration of the Conference of the Parties, in line with the procedures established in decision XII/25,

[1. *Welcomes* the rolling work programme of the Platform up to 2030, adopted by the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services in its decision 7/1, noting with appreciation that the request of the Conference of the Parties set out in decision 14/36 has been met, and that work under the six objectives, including the three initial assessments set out in the work programme, are expected to contribute to and be essential for the implementation of the post-2020 global biodiversity framework;]

2. *Also welcomes* the ground-breaking efforts of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to advance the inclusion of indigenous and local knowledge and diverse knowledge systems in all its assessments and other functions through the implementation of its approach to recognizing and working with indigenous and local knowledge in the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services set out in annex II to decision IPBES-5/1, as well as its engagement with self-organized networks and organizations of indigenous peoples and local communities and stakeholders through the implementation of its stakeholder engagement strategy set out in annex II to decision IPBES-3/4, and invites the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to continue to strengthen these efforts in the implementation of the relevant objectives of the 2030 work programme;

3. *Further welcomes* the fact that the rolling work programme up to 2030 of the Platform includes objectives related to each of the four functions of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, as well as strengthening communication and engagement of Governments and stakeholders and improvement of the effectiveness of the Platform, implemented in a manner whereby the objectives are mutually supportive;

[4. *Takes note of*][*Welcomes*] the scoping reports¹⁰ for the nexus and transformative change assessments and the important scientific contribution of these assessments for the implementation of the post-2020 global biodiversity framework, and invites Parties and relevant organizations to contribute to the nomination of experts and to participate in the assessment through the formal review processes [to ensure that relevant information on concepts such as “nature-based solutions” and “One Health” is made available to assessment authors];]

[5. *Also takes note* of the progress made in the preparation of the methodological assessment regarding the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services, the thematic assessment of the

¹⁰ The draft of this recommendation was prepared at part I of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice and thus this paragraph was pending the approval of the scoping reports by the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services at its eighth session. Subsequently, the scoping reports were approved by IPBES-8 and are available at <https://ipbes.net/nexus> and <https://ipbes.net/transformative-change> respectively.

sustainable use of wild species and the thematic assessment of invasive alien species and their control, and requests the Subsidiary Body on Scientific, Technical and Technological Advice to review the findings of those assessments when they become available and provide recommendations relating to the implementation of the Convention and, in particular, the post-2020 global biodiversity framework, for consideration by the Conference of the Parties at its respective meetings;]

[6. [Further takes note of] [Welcomes] the report of the expert workshop¹¹ convened by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on biodiversity and pandemics,¹² [and notes its relevance for the work of the Convention, including the post-2020 global biodiversity framework, as well as the work carried out under the Convention on the interlinkages between biodiversity and health];]

[7. [Welcomes] [Takes note of] the cooperation between the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and the Intergovernmental Panel on Climate Change, [takes note with appreciation of the report¹³ of the co-sponsored workshop on biodiversity and climate change, noting the conclusions therein,] and, recalling decision 14/36, encourages the two bodies to continue and further strengthen their collaboration in a transparent and participatory manner, with a view to increasing coherence while avoiding duplication of work, and requests Parties to coordinate their work with the national focal points for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and the Intergovernmental Panel on Climate Change in relation to [with a view to supporting an integrated approach to] assessments on biodiversity and climate change;]

[8. Notes that the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services at its ninth session will reconsider the requests, inputs and suggestions received in time for consideration at that session, including for a second global assessment of biodiversity and ecosystem services and for an assessment on ecological connectivity, and invites the Platform to prepare a second global assessment before 2030 and to consider a request to prepare an assessment on ecological connectivity;]

[9. Requests the Executive Secretary and invites the Executive Secretary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to explore options for further strengthening cooperation, to identify deliverables for the work under the Convention on Biological Diversity and of elements to be included in a second global assessment of biodiversity and ecosystem services, in consultation with Parties, and to report on the deliverables identified to the Subsidiary Body on Scientific, Technical and Technological Advice for consideration, and also requests the Executive Secretary to compile the views of the Parties, indigenous peoples and local communities, and relevant stakeholders, on elements to be covered by a second global assessment of biodiversity and ecosystem services, [in particular to ensure, among other things, that it complements and contributes to the monitoring and review of the post-2020 global biodiversity framework, [incorporates examples of the different challenges faced by developed and developing countries for the conservation and sustainable use of biodiversity and that considers the expansion of the time frame of analysis of the assessment to include degradation of biodiversity since the first industrial revolution and colonial periods, as appropriate,]] to be undertaken under the Convention before 2030, and, after peer review, submit the final report for

¹¹ See <https://ipbes.net/assessing-knowledge>.

¹² IPBES (2020). Workshop report on biodiversity and pandemics of the Intergovernmental Platform on Biodiversity and Ecosystem Services. IPBES secretariat, Bonn. <https://ipbes.net/pandemics>. This workshop report and any recommendations or conclusions contained therein have not been reviewed, endorsed or approved by the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

¹³ IPBES/IPCC (2021) IPBES-IPCC co-sponsored workshop report on biodiversity and climate change. This workshop report and any recommendations or conclusions contained therein have not been reviewed, endorsed or approved by the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services or the Intergovernmental Panel on Climate Change.

consideration by the Subsidiary Body on Scientific, Technical and Technological Advice, prior to the sixteenth meeting of the Conference of the Parties;]

[10. *Requests* the Executive Secretary to regularly and systematically assess and report to the Subsidiary Body on Scientific, Technical and Technological Advice on how to consider deliverables from all functions and processes of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services for the implementation of the Convention, including a forward schedule and regular agenda item in meetings of the Subsidiary Body;]

11. *Also requests* the Executive Secretary to identify views from Parties on how the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services could, within its defined functions on producing further assessments, building capacity, strengthening knowledge and supporting policy, contribute to the review and monitoring process of the post-2020 global biodiversity framework;

[12. *Invites* the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to contribute to the work of the ad hoc technical expert group on indicators for the post-2020 global biodiversity framework;]

13. *Notes* the information contained in the annex to the note by the Executive Secretary,¹⁴ also notes the progress in a number of countries in elaborating national assessments of biodiversity and ecosystem services, encourages all Parties and other Governments as well as subnational governments to carry out such national or subnational assessments, with the full engagement of indigenous peoples and local communities, women, youth, civil society, academia and business, adapting the process of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to the local contexts, and so that these national or subnational assessments can be used as potential input to the rolling work programme of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and the implementation of the post-2020 global biodiversity framework, and urges Parties, and invites other Governments and organizations in a position to do so, to provide technical assistance, capacity-building and financial support, as appropriate.

¹⁴ CBD/SBSTTA/24/8.

24/4. Synthetic Biology

The Subsidiary Body on Scientific, Technical and Technological Advice

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

The Conference of the Parties,

Recalling decisions XII/24, XIII/17 and 14/19 of the Conference of the Parties which provided guidance and mandated work on synthetic biology in relation to the three objectives of the Convention,

Also recalling Subsidiary Body on Scientific, Technical and Technological Advice recommendation 23/7, paragraph 2, by which the Subsidiary Body deferred consideration of the submission that synthetic biology should be classified as a new and emerging issue to its twenty-fourth meeting,

Noting the analysis on the relationship between synthetic biology and the criteria for new and emerging issues established in decision IX/29 performed by the Ad Hoc Technical Expert Group on Synthetic Biology,¹⁵

Recalling decision 14/19, in which it agreed that broad and regular horizon scanning, monitoring and assessing of the most recent technological developments is needed for reviewing new information regarding the potential positive and potential negative impacts of synthetic biology vis-à-vis the three objectives of the Convention and those of the Cartagena Protocol on Biosafety and the Nagoya Protocol on Access and Benefit-sharing,

Also recalling paragraph 7 of decision 14/19, emphasizing the need for a coordinated, complementary and non-duplicative approach on issues related to synthetic biology under the Convention and its protocols, as well as among other conventions and relevant organizations and initiatives,

[*Noting* the relevance of digital sequence information for synthetic biology, recalling decision 14/20 on digital sequence information on genetic resources and ongoing discussions and noting also the need for a coordinated, complementary and non-duplicative approach on issues related to digital sequence information on genetic resources],

[*Recalling* paragraphs 9 to 11 of decision 14/19, and calling upon Parties and other Governments, taking into account the current uncertainties regarding engineered gene drives, to apply a precautionary approach, in accordance with the objectives of the Convention,]

Recognizing the importance of capacity-building, knowledge sharing, technology transfer and financial resources for addressing issues related to synthetic biology,

Welcoming the outcomes of the meeting of the Ad Hoc Technical Expert Group on Synthetic Biology held in Montreal, Canada, from 4 to 7 June 2019,¹⁶

A. Considerations for new and emerging issues and associated criteria

1. *Recognizes* the various challenges experienced by the Ad Hoc Technical Expert Group on Synthetic Biology in performing analysis on the relationship between synthetic biology and the criteria for new and emerging issues;

2. *Also recognizes* that decisions X/13, XI/11, XII/24, XIII/17 and 14/19 mandated work on synthetic biology under the Convention, and that the results of the application of the criteria as set out in decision IX/29 to the issue of synthetic biology have been inconclusive in determining whether synthetic biology is a new and emerging issue or not [and decides not to

¹⁵ CBD/SBSTTA/24/4/Rev.1, annex I, sect. VI.

¹⁶ Ibid., annex I.

require further analysis on whether synthetic biology is a new and emerging issue] [while keeping the Convention's work on synthetic biology under review][recognizing that synthetic biology has not been determined to be [or not to be] a new and emerging issue];

3. *Notes* that this should not be seen as setting a precedent for future processes for treating proposed new and emerging issues;

B. Process for broad and regular horizon scanning monitoring and assessment

4. *Establishes* a process for broad and regular horizon scanning, monitoring and assessment of the most recent technological developments in synthetic biology as set out in section A of the annex; [and for an [initial] [period of] [two cycles during two consecutive intersessional periods;] [one intersessional period;]]

5. [*Establishes* a multidisciplinary Ad Hoc Technical Expert Group on Synthetic Biology to support the process for broad and regular horizon scanning, monitoring and assessment in accordance with the terms of reference contained in section B of the annex;]

6. *Decides* that the trends in new technological developments in synthetic biology identified by the Ad Hoc Technical Expert Group on Synthetic Biology¹⁷ [and the multidisciplinary Ad Hoc Technical Expert Group] will inform the [initial] horizon scanning, monitoring and assessment [of the following intersessional period;]

7. *Invites* Parties, other Governments, indigenous peoples and local communities, and relevant organizations to submit to the Executive Secretary information relevant to the trends referred to in paragraph 6 above to inform the horizon scanning, monitoring and assessment;

8. *Calls upon* Parties and other stakeholders to facilitate broad international cooperation, technology transfer, knowledge sharing, including through the Biosafety Clearing-House, for products of synthetic biology that are considered to be living modified organisms, and capacity-building on synthetic biology, taking into account the needs of Parties and of indigenous peoples and local communities;

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

(a) To convene online discussions of the Open-ended Online Forum on Synthetic Biology [to support the work of the multidisciplinary Ad Hoc Technical Expert Group] as well as the overall process outlined in paragraph 4 above;

(b) To synthesize the information submitted in response to paragraph 7 above as well as the information provided through the online discussions of the Open-ended Online Forum on Synthetic Biology to inform the deliberations of [the multidisciplinary Ad Hoc Technical Expert Group][the Subsidiary Body on Scientific, Technical and Technological Advice];

(c) [To convene at least one meeting of the multidisciplinary Ad Hoc Technical Expert Group to work according to the annex, section B;]

(d) To prepare reports on the outcomes and operation of the horizon scanning process referred to in paragraph 4 above and to submit those reports for peer review to support the review of the effectiveness of the process by the Subsidiary Body on Scientific, Technical and Technological Advice at its meetings [prior to the sixteenth [and seventeenth] meetings of the Conference of the Parties respectively;]

(e) To facilitate international cooperation, promote and support capacity-building, technology transfer and knowledge-sharing, regarding synthetic biology, taking into account the needs of Parties and of indigenous peoples and local communities;

¹⁷ Ibid., annex I, sect. I.

(f) To continue to ensure the full and effective participation of indigenous peoples and local communities in the discussions and in the work on synthetic biology under the Convention, in accordance with decision X/40 [and with a human rights approach;]

10. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to consider the outcomes of the horizon scanning process [contained in the report of the multidisciplinary Ad Hoc Technical Expert Group],¹⁸ and make recommendations for the consideration of the Conference of the Parties at its [sixteenth [and seventeenth] meetings] and, as appropriate, the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol at its [eleventh [and twelfth] meetings] and the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol at its [fifth [and sixth] meetings];

11. *Also requests* the Subsidiary Body on Scientific, Technical and Technological Advice to consider the interim and final reports on effectiveness of the horizon scanning process established in paragraph 4 above, at its meetings prior to the [sixteenth [and seventeenth]] meetings of the Conference of the Parties, respectively, and to make a recommendation [on the need to extend that process];

12. *Requests* the Executive Secretary to continue pursuing cooperation with other regional and international organizations, conventions and initiatives, including academic and research institutions, on issues related to synthetic biology.

2. *Recommends* that the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol and the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol each take note of the decision of the Conference of the Parties on this matter.

Annex

BROAD AND REGULAR HORIZON SCANNING, MONITORING AND ASSESSMENT OF THE MOST RECENT TECHNOLOGICAL DEVELOPMENTS IN SYNTHETIC BIOLOGY

A. Process for the horizon scanning, monitoring and assessment

1. The process for broad and regular horizon scanning, monitoring and assessment (hereinafter “the process”) consists of the following steps:

- (a) Information gathering;
- (b) Compilation, organization and synthesis of information;
- (c) Assessment;
- (d) Reporting on outcomes.

2. [For each step, the coordinating actors, other actors and main considerations for the process are as set out in table 1.]

3. The Subsidiary Body on Scientific, Technical and Technological Advice shall review the outcomes of the process and make recommendations on technological developments in synthetic biology and their potential positive and negative impacts for the objectives of the Convention. [including social, economic and cultural impacts as well as related ethical issues].

4. The effectiveness of the process shall be reviewed [regularly] [in accordance with a decision] by the Conference of the Parties.

¹⁸ Ibid., sect. V.

B. [Terms of reference for the multidisciplinary Ad Hoc Technical Expert Group on Synthetic Biology to support the process for broad and regular horizon scanning, monitoring and assessment]

1. The multidisciplinary Ad Hoc Technical Expert Group, building on the previous relevant work under the Convention and its Protocols, including the work of the previous Ad Hoc Technical Expert Groups on Synthetic Biology, shall:

[(a) Assess, vis-à-vis the three objectives of the Convention and its Protocols [and making use of tools and approaches to enable a participatory assessment process], based on the results of steps in A1(a) and A1(b) above; (i) new technological developments and applications of synthetic biology, and (ii) state of knowledge on potential impacts on biodiversity and the environment of current and future synthetic biology applications, taking into account impacts on human, animal and plant health, and cultural and socioeconomic issues;]

(b) [Make use of tools and approaches to enable a participatory assessment process] to review and assess the information gathered through the process for broad and regular horizon scanning, monitoring and assessment and, on this basis, consider technological developments in synthetic biology and their potential positive and negative impacts [and their implications] for the objectives of the Convention;

[(c) Identify a methodology for the assessment of the compiled information, based on [scientific evidence] [best scientific knowledge and other knowledge system], considering the availability and accessibility of tools and expertise;]

(d) [Identify trends and issues, [including categories of synthetic biology that may need to be [prioritized[[identified] or] that may need to continue to be considered in [subsequent cycles,] as well as additional issues that may be regarded as priorities [vis-à-vis the three objectives of the Convention] [for the next intersessional period;]]

[(e) Identify capacity-building, technology transfer and knowledge sharing needs based on priorities determined by Parties on issues related to synthetic biology and in the light of the outcomes of the horizon scanning process;]

[(f) Evaluate the availability of tools to detect, identify and monitor the [organisms, components and products] [potential positive and negative impacts] of synthetic biology;]

(g) Prepare a report on the outcomes of its assessment to be submitted to the Subsidiary Body on Scientific, Technical and Technological Advice;

(h) Make recommendations to the Subsidiary Body on Scientific, Technical and Technological Advice on specific issues that may require further consideration by the Conference of the Parties and/or the Parties to the Cartagena Protocol and the Parties to the Nagoya Protocol.

1 *alt.* [The Subsidiary Body on Scientific, Technical and Technological Advice shall:

(a) Review and assess the information gathered through the process and, on this basis, consider technological developments in synthetic biology and the potential negative and positive impacts vis-à-vis the objectives of the Convention;

(b) Identify issues that may need to continue to be considered, as well as additional issues that may be considered priorities in the next intersessional period;

(c) Prepare conclusions and recommendations on technological development in synthetic biology and their potential positive and negative impacts for the objectives of the convention].

2. The multidisciplinary Ad Hoc Technical Expert Group on Synthetic Biology will be constituted for an initial duration of two intersessional periods and according to section H of the consolidated modus operandi of the Subsidiary Body on Scientific, Technical and Technological Advice, including, whenever possible, expertise from a broad range of disciplines, as well as interdisciplinary and intercultural expertise,

indigenous peoples and local communities. The continuing need for the Group will be assessed in the light of the overall assessment of the effectiveness of the horizon scanning process.

3. The procedure for avoiding or managing conflicts of interest in expert groups set out in the annex to decision 14/33 shall apply to the Multidisciplinary Technical Expert Group.

4. The multidisciplinary Ad Hoc Technical Expert Group on Synthetic Biology will work through a combination of face-to-face meetings, held physically and/or online, supported, as needed by online discussions.]

[Table 1. Process for broad and regular horizon scanning, monitoring and assessment of the most recent technological developments in synthetic biology

Process and steps		Coordinating actors	Other actors and considerations
Horizon scanning, monitoring and assessment process	(a) Information gathering	<ul style="list-style-type: none"> Secretariat, with the support of consultants as necessary 	<ul style="list-style-type: none"> Possible mechanisms include submissions of information through notifications; outreach to relevant institutions and intergovernmental organizations; online forums; collaborative activities with regional and national assessment platforms; and other existing tools, such as national reports, and the clearing-house mechanism. Seek inputs from a diverse range of actors, including other organizations working on synthetic biology, facilitate engagement of indigenous peoples and local communities, among others, and build on the work done by other relevant horizon scanning or technology assessment processes. Some issues identified during one cycle may need to continue to be considered in subsequent cycles, with consistency in the way the process is carried out with a view to obtaining results that could be comparable over time.
	(b) Compilation, organization and synthesis of information	<ul style="list-style-type: none"> Secretariat, with the support of consultants as necessary 	<ul style="list-style-type: none"> Use digital tools for dissemination of information and feedback, inter alia, by webinars, directed to Parties, and other stakeholders. The information compiled and synthesized will be made available, including through the clearing-house mechanism.
	(c) Assessment	<ul style="list-style-type: none"> Multidisciplinary Ad Hoc Technical Expert Group on Synthetic Biology Subsidiary Body on Scientific, Technical 	<ul style="list-style-type: none"> Expertise from a broad range of disciplines, as well as interdisciplinary and intercultural expertise necessary. Face-to-face meetings with support of online mechanisms.

Process and steps		Coordinating actors	Other actors and considerations
		and Technological Advice (approval of the main conclusions of the process)	<ul style="list-style-type: none"> • Make use of tools and approaches to enable a participatory assessment process. • Selection of experts for the multidisciplinary Ad Hoc Technical Expert Group will be undertaken in accordance with the consolidated modus operandi of the Subsidiary Body on Scientific, Technical and Technological Advice. • Key actors in the horizon scanning, monitoring and assessment process, including consultants and members of the multidisciplinary Ad Hoc Technical Expert Group, will be subject to the procedure for avoiding or managing conflicts of interest set out in decision 14/33. • Assessment step may be supported by, among other things, commissioning technology assessment studies.
	(d) Reporting on outcomes	<ul style="list-style-type: none"> • Multidisciplinary Ad Hoc Technical Expert Group reports to Subsidiary Body on Scientific, Technical and Technological Advice. • Subsidiary Body on Scientific, Technical and Technological Advice reports to Conference of the Parties (and/or the meeting of the Parties to the Cartagena Protocol, the meeting of the Parties to the Nagoya Protocol) on the outcome of step (a), (b) and (c). 	<ul style="list-style-type: none"> • External review of the draft outcomes. • Communicate the outputs effectively to a broad range of potential users, in a culturally appropriate format and languages.
	Use of outcomes in support of decision-making	<ul style="list-style-type: none"> • Subsidiary Body on Scientific, Technical and Technological Advice (review of outcomes, preparation of conclusions and recommendations) 	

Process and steps	Coordinating actors	Other actors and considerations
	<ul style="list-style-type: none"> • Conference of the Parties and/or the meeting of the Parties to the Cartagena Protocol, the meeting of the Parties to the Nagoya Protocol (decision-making) • Parties and others, including other United Nations bodies 	
Review of process and its effectiveness	<ul style="list-style-type: none"> • Conference of the Parties on basis of periodic review by Subsidiary Body on Scientific, Technical and Technological Advice 	

]

24/5. Risk assessment and risk management

The Subsidiary Body on Scientific, Technical and Technological Advice *recommends* that the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety, at its tenth meeting, adopt a decision along the following lines:

The Conference of the Parties serving as the meeting to the Parties to the Cartagena Protocol on Biosafety,

Recalling decision CP-9/13, paragraph 7, in which it decided to consider, at its tenth meeting, whether additional guidance materials on risk assessment are needed for (a) living modified organisms containing engineered gene drives, and (b) living modified fish,

Also recalling decision BS-VII/12, paragraph 17, in which it recommended to the Conference of the Parties to the Convention of Biological Diversity a coordinated approach with the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety on the issue of synthetic biology, taking into account the possibility that the provisions of the Protocol might also apply to living organisms resulting from synthetic biology,

Recalling the importance of the precautionary approach, in accordance with the Cartagena Protocol on Biosafety,

Noting the existing voluntary guidance on the assessment of socio-economic considerations in the context of Article 26 of the Cartagena Protocol on Biosafety,

1. *Welcomes* the outcomes of the discussions of the Ad Hoc Technical Expert Group on Risk Assessment;¹⁹

2. *Takes note* of the clarifications made by the Ad Hoc Technical Expert Group on annex I of decision CP-9/13 regarding the process for identification and prioritization of specific issues of risk assessment of living modified organisms that may warrant consideration;²⁰

3. *Welcomes* the analysis done by the Ad Hoc Technical Expert Group on the topics of (a) living modified organisms containing engineered gene drives and (b) living modified fish according to decision CP-9/13, annex I;

4. *Notes* the range of perspectives on the need for the development of guidance on risk assessment of living modified fish, decides not to proceed, at this stage, with the development of additional voluntary guidance materials on risk assessment regarding living modified fish, and encourages Parties and invites other Governments and relevant organizations to promote international cooperation, information sharing and capacity-building on risk assessment of living modified fish, and to make use of existing guidance materials, [with a view to considering further guidance on living modified fish at its eleventh meeting;]

5. *Endorses* the recommendation of the Ad Hoc Technical Expert Group that additional voluntary guidance materials to support case-by-case risk assessment of living modified organisms containing engineered gene drives should be developed, and agrees to develop such additional voluntary guidance materials as per annex I;

[6. *Requests* a panel of 3 to 6 experts selected in a way to warrant the required scientific expertise to develop a detailed outline and first draft of additional guidance materials on risk assessment of living modified organisms containing engineered gene drives to ensure a fast and efficient drafting process;]

7. *Decides* to establish an Ad Hoc Technical Expert Group on Risk Assessment that will work according to the terms of reference annexed hereto;

¹⁹ CBD/CP/RA/AHTEG/2020/1/5.

²⁰ See CBD/CP/RA/AHTEG/2020/1/5, annex I, sect. III.

8. *Invites* Parties, other Governments, indigenous peoples and local communities and relevant organizations to submit to the Executive Secretary information relevant to the work of the Ad Hoc Technical Expert Group;

9. *Invites* Parties to also submit information on their needs and priorities for further guidance materials on specific topics of risk assessment of living modified organisms, including a rationale [reflecting] [following] the criteria set out in decision CP-9/13, annex I;

10. *Calls* upon Parties, other Governments and relevant organizations to continue to disseminate information and share experiences, especially through the Biosafety Clearing-House, that are useful for risk assessments of living modified organisms, including living modified fish and organisms containing engineered gene drives;

11. *Requests* the Executive Secretary:

[(a) To contract, subject to the availability of resources, a panel of three to six experts selected in a way to warrant the required scientific expertise to develop a detailed outline and first draft of additional guidance materials on risk assessment of living modified organisms containing engineered gene drives;]

(b) To convene online discussions of the Online Forum on Risk Assessment and Risk Management to review an outline and a first draft of the additional voluntary guidance materials and to support the work of the Ad Hoc Technical Expert Group;

(c) To collect and synthesize relevant information to facilitate the work of the Online Forum and the Ad Hoc Technical Expert Group;

(d) To synthesize the views referred to in paragraphs 8 and 9 above and the discussions of the Online Forum and make them available to the Ad Hoc Technical Expert Group;

(e) To convene, subject to the availability of resources, two meetings of the Ad Hoc Technical Expert Group on Risk Assessment, with at least one of the meetings as a face-to-face;²¹

(f) To facilitate the process of identification and prioritization of specific issues of risk assessment of living modified organisms that may warrant consideration, as established in paragraph 6 of decision CP-9/13, by making information submitted by Parties on issues identified in accordance with annex I of the same decision, as well as information useful for the risk assessment of those topics, available through a dedicated web page within the Biosafety Clearing-House;

(g) To ensure the full and effective participation of indigenous peoples and local communities in the discussions and in the work on risk assessment under the Cartagena Protocol;

(h) To explore ways to facilitate and support capacity-building and knowledge-sharing and technology transfer regarding risk assessment and risk management of living modified organisms;

(i) To provide dedicated web pages in the Biosafety Clearing-House to facilitate easy access and raise awareness of available information that is relevant for risk assessment of living modified organisms, including living modified fish and organisms containing engineered gene drives;

12. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to consider the outcomes of the Ad Hoc Technical Expert Group on Risk Assessment and make a recommendation for consideration by the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol at its eleventh meeting;

13. *Decides* to consider, at its eleventh meeting, additional issues on which guidance materials on risk assessment may be needed, further to the process for the identification and prioritization of specific issues of risk assessment of living modified organisms established in

²¹ Depending on restrictions due to the pandemic situation.

decision CP-9/13, taking into account priorities identified by Parties pursuant to paragraph 9 above and the report of the Ad Hoc Technical Expert Group as per paragraph 1(f) of its terms of reference.

Annex

**TERMS OF REFERENCE FOR THE AD HOC TECHNICAL EXPERT GROUP ON
RISK ASSESSMENT**

1. The Ad Hoc Technical Expert Group (Group) on Risk Assessment shall:

(a) Be composed of experts selected in accordance with the section H of the consolidated modus operandi of the Subsidiary Body on Scientific, Technical and Technological Advice, ensuring specific [scientific] expertise on organisms containing engineered gene drives and their potential effects on biodiversity as well as on issues relevant to the mandate of the Group, and including experts from relevant international organizations,²² as well as indigenous peoples and local communities, and applying decision 14/33 on the procedure for avoiding or managing conflicts of interest in expert groups;

[(b Consider modalities of operation to ensure a fast and efficient drafting process, [including a small drafting group] based on a first draft reviewed by the Online Forum, as appropriate;]

(c) Meet twice, subject to the availability of funds and prior to the eleventh meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety, with at least one of the meetings being face-to-face, and perform necessary tasks between its two meetings supported by online means of communication and engagement;

[(d) Develop additional voluntary guidance materials for conducting case-by-case risk assessments of living modified organisms containing engineered gene drives in accordance with annex III of the Protocol. A specific focus of this material should be engineered gene drive mosquitos [taking into account general considerations of living modified organisms containing on gene drives,][challenges identified by the Ad Hoc Technical Expert Group on Risk Assessment²³ and process identified in annex 1 of decision CP-9/13] and existing national and regional risk assessment experiences. [taking into account human health, environmental and socioeconomic impacts as well as traditional knowledge and the value of biodiversity to indigenous peoples and local communities]]

(e) Analyse the information submitted by Parties as per paragraph 9 and, on the basis of this, prepare a list of prioritized topics on which further guidance materials on risk assessment may be needed according to criteria in decision CP-9/13, annex I;

(f) Prepare a report, including draft additional voluntary guidance materials on living modified organisms containing engineered gene drives and a list of prioritized topics as per paragraph (e) above, on which further guidance materials on risk assessment may be needed, for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice;

2. In undertaking its work, the Group shall consider the synthesis of views from the submissions and discussions in the online forum prepared by the Executive Secretary, existing resources, including those identified in the stock-taking exercise of the “study on risk assessment: application of annex I of decision CP-9/13 to living modified organisms containing engineered gene drives”,²⁴ guidance materials already available, relevant decisions on risk assessment and risk management taken under the Cartagena Protocol on Biosafety and any other relevant information collected by the Executive Secretary further to paragraph 11 (c) of decision CP-10/--.

²² Such as the World Trade Organization, the International Union for Conservation of Nature, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and the Food and Agriculture Organization of the United Nations.

²³ CBD/SBSTTA/24/5, annex, paras. 4-41.

²⁴ CBD/CP/RA/AHTEG/2020/1/4.

24/6. Review of the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity and updated plan of action

The Subsidiary Body on Scientific, Technical and Technological Advice,

Having considered the note by the Executive Secretary,²⁵

1. *Welcomes* the draft plan of action 2020-2030 for the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity, as contained in the annex to the present recommendation;

2. *[Takes note of] [Also welcomes]* the report entitled *State of Knowledge on Soil Biodiversity - Status, Challenges and Potentialities*,²⁶ prepared by the Food and Agriculture Organization of the United Nations in collaboration with the Intergovernmental Technical Panel on Soils of the Global Soil Partnership, the Global Soil Biodiversity Initiative, the European Commission and the Secretariat of the Convention on Biological Diversity, and its summary for policymakers;

3. *Also takes note* of the outcomes of the 2021 Global Symposium on Soil Biodiversity, jointly organized by the Food and Agriculture Organization of the United Nations and its Global Soil Partnership, and the Intergovernmental Technical Panel on Soils, together with the Secretariat of the Convention on Biological Diversity, the Global Soil Biodiversity Initiative and the Science-Policy Interface of the United Nations Convention to Combat Desertification;

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

The Conference of the Parties,

Recalling decisions III/11, V/5, [VI/5](#), [VIII/23](#) and [X/34](#),

Acknowledging the importance of soil biodiversity in underpinning the functioning of terrestrial ecosystems and, therefore, most of the services it delivers,

Recognizing that activities to promote the conservation, restoration and sustainable use of soil biodiversity, and the ecosystem functions and services they provide, are key in the functioning of sustainable agricultural systems for food and nutrition security for all, for climate change [mitigation and] adaptation, the transition towards more sustainable agricultural [and food] systems and to enhance the achievement of the Sustainable Development Goals,

[1. *Adopts* the plan of action 2020-2030 for the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity, as contained in the annex to the present decision, and considers it an instrument for supporting the implementation of the post-2020 global biodiversity framework on a voluntary basis and in accordance with national circumstances and priorities;]

2. *[Takes note of] [Welcomes]* the report entitled *State of Knowledge on Soil Biodiversity - Status, Challenges and Potentialities*,²⁶ prepared by the Food and Agriculture Organization of the United Nations in collaboration with the Intergovernmental Technical Panel on Soils of the Global Soil Partnership, the Global Soil Biodiversity Initiative, the European Commission and the Secretariat of the Convention on Biological Diversity;

3. *Encourages* Parties, other Governments and relevant organizations to support the implementation of, and capacity-building and development for, the plan of action 2020-2030 for the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity through, among other things, the integration of appropriate measures into national biodiversity strategies and action plans and national reports, sustainable soil management and relevant agricultural

²⁵ CBD/SBSTTA/24/7/Rev.1.

²⁶ CBD/SBSTTA/24/INF/8.

policies, plans, legislation, standards, programmes and practices, in accordance with national priorities and circumstances;

[4. *Urges* Parties to address the [direct and indirect] drivers of soil biodiversity loss and land degradation [, including land-use change, and to identify, phase out and eliminate incentives, taxes and subsidies harmful to soil biodiversity];]

5. *Encourages* Parties to integrate the conservation, restoration and sustainable use of soil biodiversity into agricultural systems [and other managed ecosystems] [and other sectors identified by previous decisions of the Conference of the Parties], land and soil management, development programmes and relevant policies [at all levels, including incentives, and other measures, such as taxes and subsidies, to promote sustainable soil management];

6. *Invites* academic and research bodies, relevant organizations, networks and indigenous peoples and local communities, [farmers,] women and youth, to increase knowledge and promote awareness-raising activities on the importance of soil biodiversity and to promote further research in order to address gaps identified in the plan of action[, including through North-South technology transfer and capacity-building];

7. *Invites* the Food and Agriculture Organization of the United Nations, including through the framework of the Global Soil Partnership, to facilitate the implementation of the plan of action, involving Parties, including their ministries of agriculture and environment at the national level, as appropriate;

8. *Invites* the United Nations Environment Programme, the Food and Agriculture Organization of the United Nations, the United Nations Convention to Combat Desertification, the Intergovernmental Technical Panel on Soils of the Global Soil Partnership and the Global Initiative for Soil Biodiversity to support the implementation of the post-2020 global biodiversity framework with regard to soil-related targets and actions, including their monitoring and reporting;

9. *Urges* [developed country Parties] [Parties] and invites other Governments and organizations [in a position to do so,] to provide technical and financial support, as appropriate, to enable developing country Parties and Parties with economies in transition to promote the research, technology transfer, monitoring and assessment of soil biodiversity [, consistent with Article 20 of the Convention];

10. *Invites* the Global Environment Facility, other donors, funding agencies and the private sector to provide financial assistance, including capacity-building and development activities, for national, subnational and regional projects, in particular for developing countries and countries with economies in transition, that address the implementation of the plan of action for the conservation and sustainable use of soil biodiversity;²⁷

11. *Invites* Parties to provide, on a voluntary basis, information on their activities and results from the implementation of the plan of action, in alignment with the post-2020 global biodiversity framework, as appropriate, and requests the Executive Secretary to compile the submissions and to make them available for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting held prior to the seventeenth meeting of the Conference of the Parties;

12. *Requests* the Executive Secretary to bring the present decision to the attention of the Food and Agriculture Organization of the United Nations, the United Nations Convention to Combat Desertification, the United Nations Framework Convention on Climate Change, other

²⁷ This paragraph, which addresses support from the Global Environment Facility, will eventually be reflected in a decision on the financial mechanism which will consolidate the guidance of the Conference of the Parties to the Global Environment Facility.

United Nations organizations, programmes and biodiversity-related conventions and the United Nations Decade on Ecosystem Restoration (2021-2030).²⁸

Annex

DRAFT PLAN OF ACTION 2020-2030 FOR THE INTERNATIONAL INITIATIVE FOR THE CONSERVATION AND SUSTAINABLE USE OF SOIL BIODIVERSITY

I. INTRODUCTION

1. Since the launch of the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity, a significant amount of new scientific, technical and other types of knowledge relevant to soils and their biodiversity has been released.
2. The plan of action 2020-2030 for the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity is based on the review of the Initiative, the *Status of the World's Soil Resources* report²⁹ and on the findings of the report on the *State of Knowledge on Soil Biodiversity - Status, Challenges and Potentialities*,³⁰ prepared by the Food and Agriculture Organization of the United Nations (FAO) and the Intergovernmental Technical Panel on Soils.
3. Improved management of soil and its biodiversity offers solutions for all sectors that rely on soils, including forestry and farming, [as well as natural areas,] while it can simultaneously increase carbon storage, improve water and nutrient cycling, resilience to climate change, [while preventing and avoiding potential impacts arising from the implementation of soil mitigation approaches and practices on indigenous peoples and local communities] [including through nature-based solutions,³¹] [including through ecosystem approaches] and mitigate pollution. Soil biodiversity depends on the type of climate, mineral soil and type of vegetation and, in turn, this biodiversity has an effect on soil. In order to maintain or restore the biodiversity of soils, it is necessary to maintain or restore their biophysical, biochemical and biological properties. Soil biodiversity and its biotic interactions are important levers to improve soil quality and function, highlighting the importance of research, monitoring and management that is geared directly at soil biodiversity, as an integrative part and key element of soil quality. Soil biodiversity is also crucial to improve not only soil health,³² but also plant, animal and human health.
4. However, soil is one of the world's most vulnerable resources in the face of pollution, climate change, desertification, land degradation, drought, land-use change, unsustainable agriculture practices, biodiversity loss, increased demand for water and food production, urbanization and industrial development. Therefore, in order to safeguard soils and ecosystems, it is necessary to prevent the loss of soil and soil biodiversity from anthropogenic drivers related to climate change, such as the increase in temperature, droughts or extreme rainfall, and to land-use change, [such as fires, agricultural burning crop

²⁸ See General Assembly resolution 73/284 of 1 March 2019.

²⁹ [Food and Agriculture Organization of the United Nations and Intergovernmental Technical Panel on Soils \(2015\). *Status of the World's Soil Resources – Main Report*. Rome.](#)

³⁰ CBD/SBSTTA/24/INF/8.

[³¹ At its fifth session, the United Nations Environment Assembly, in its resolution on “Nature-based solutions for supporting sustainable development”, formally adopted the definition of nature-based solutions as being “actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits.”]

³² Soil health is defined as: “The capacity of soil to function as a living system. Healthy soils maintain a diverse community of soil organisms that help to control plant disease, insect and weed pests, form beneficial symbiotic associations with plant roots, recycle essential plant nutrients, improve soil structure with positive repercussions for soil water and nutrient holding capacity, and ultimately improve crop production”. FAO. 2011. *Save and Grow: A Policymaker's Guide to the Sustainable Intensification of Smallholder Crop Production*. ISBN 978-92-5-106871-7112. <http://www.fao.org/3/i2215e/i2215e00.htm>

monoculture, improper and overuse of agrochemicals, soil pollution, soil sealing, soil compaction, soil salinization, intensive tillage, deforestation and introduction of invasive alien species].

5. The present plan of action presents global actions to support the integration of soil biodiversity considerations into the context of the post-2020 global biodiversity framework, as well as within and across productive sectors.

6. The elements of this plan of action recognize the need to mainstream soil biodiversity across sectors and the need for integrated approaches to better address the complex interactions that come into play as the conservation and sustainable use of soil biodiversity usually involve economic, environmental, cultural and social factors. The importance of implementation at the field level with due consideration of gender roles, local context and specificities is another element reflected in the plan, while awareness-raising, sharing of knowledge, capacity-building and research remain key to ensuring a better understanding of the role of soil biodiversity for sustainability.

7. The present plan of action has been prepared jointly by FAO, the Secretariat of the Global Soil Partnership (GSP) and the Secretariat of the Convention on Biological Diversity, in consultation with other partners and relevant experts, pursuant to decision [14/30](#).

II. PURPOSE AND OBJECTIVES

8. The *Status of the World's Soil Resources* report identified 10 threats critical to soil functions. The loss of soil biodiversity was identified as one of these threats, and a respective call for action was strongly recommended. The Voluntary Guidelines for Sustainable Soil Management³³ provide a framework for reverting it through a number of policies, research and field actions.

9. The *purpose* of this plan of action is to provide ways to encourage conservation, restoration and sustainable use of soil biodiversity and to support Parties, other Governments, subnational and local governments, indigenous peoples and local communities, women and youth, relevant organizations and initiatives, in accelerating and upscaling efforts towards the conservation, restoration and sustainable use of soil biodiversity, and towards the assessment and monitoring at the corresponding level of soil organisms to promote their conservation, sustainable use and/or restoration, and to respond to challenges that threaten soil biodiversity.

10. The *overall objective* of this plan of action is to mainstream soil biodiversity science, knowledge, and understanding into public policies, at all levels, and to foster coordinated action to invest in soil biodiversity assessments at the global level to safeguard and promote the conservation, restoration and sustainable use of soil biodiversity and its ecosystem functions and services, which are essential for sustaining life on Earth, while acknowledging that economic, environmental, cultural and social factors contribute to sustainable soil management, and to promote investment in soil biodiversity research, monitoring and assessment at the corresponding level. Achieving this objective will ensure that soil biodiversity recovers and continues to provide a full range of functions. It will also formally promote sustainable soil management practices, including artisanal forms of food production, which can enhance soil biodiversity while maintaining the productivity of managed ecosystems.

11. The *specific objectives* of this plan of action are to help Parties, other Governments, indigenous peoples and local communities, women and youth, and other stakeholders, in accordance with national priorities and circumstances, consistent with the Convention and other applicable international obligations, as well as relevant organizations and initiatives, with the following:

(a) Implementing coherent and comprehensive policies for the conservation, restoration and sustainable use of soil biodiversity at the local, subnational, national, regional and global levels, considering the different economic, environmental, cultural and social factors of all relevant productive sectors and their

³³ FAO 2017. *Voluntary Guidelines for Sustainable Soil Management*. Food and Agriculture Organization of the United Nations, Rome. <http://www.fao.org/documents/card/en/c/5544358d-f11f-4e9f-90ef-a37c3bf52db7/>.

soil management practices, and mainstreaming their integration into relevant sectoral and cross-sectoral plans, programmes and strategies;

(b) Encouraging the use of sustainable soil management practices and existing tools, sustainable traditional practices, guidance and frameworks to maintain and restore soil biodiversity and to encourage the transfer of knowledge and enable women, particularly rural women, indigenous peoples and local communities and all stakeholders to harness the benefits of soil biodiversity for their livelihoods, taking into account national circumstances;

(c) Promoting education, awareness-raising and developing capacities in the public and private sectors on the multiple benefits and application of soil biodiversity, sharing knowledge and improving the tools for decision-making, fostering engagement through collaboration, intergenerational transmission of traditional knowledge of indigenous peoples and local communities and partnerships, and providing practical and feasible actions to avoid, reduce or reverse soil biodiversity loss;

(d) Developing voluntary standard protocols to assess the status and trends of soil biodiversity, as well as monitor activities, in accordance with national legislation, to address gaps in knowledge and foster relevant research, and to enable compilation of large data sets to support research and monitoring activities;

(e) Recognizing and supporting the role, and land and resource rights of indigenous peoples and local communities, in accordance with national legislation and international instruments, as well as the role of women, smallholders and small-scale food producers, particularly family farmers, in maintaining biodiversity through sustainable agricultural practices, [such as agroecology and ecological intensification] [such as sustainable agricultural practices as identified by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services] [such as agroecology and sustainable intensification approaches]].

12. The plan of action seeks to contribute to the achievement of the Sustainable Development Goals, in particular Goals 2, 3, 6, 13, 14 and 15, the post-2020 global biodiversity framework, the 2050 Vision for Biodiversity, the FAO Strategy on Mainstreaming Biodiversity across Agricultural Sectors,³⁴ the 2018-2030 Strategic Framework under the United Nations Convention to Combat Desertification (UNCCD)³⁵ and the objectives, commitments and initiatives under other conventions and multilateral environmental agreements, including the three Rio conventions, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal,³⁶ the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade³⁷ and the Stockholm Convention on Persistent Organic Pollutants,³⁸ and the Minamata Convention on Mercury.

III. SCOPE AND PRINCIPLES

13. The *scope* of this updated plan of action focusses on soils across agricultural, other productive landscapes and other relevant ecosystems. It is wide and far-reaching and context-dependent to ensure that it responds to specific situations and farmer typologies and that it prioritizes actions on the basis of country goals and the needs of direct beneficiaries.

14. The Initiative continues to be implemented as a cross-cutting initiative by Parties to the Convention, the Secretariat, FAO and its Global Soil Partnership in partnership with the work of the Intergovernmental Technical Panel on Soils, the Global Soil Biodiversity Initiative, the Science-Policy Interface of the United Nations Convention to Combat Desertification, education, academic and research bodies, donor agencies

³⁴ FAO. 2020. *FAO Strategy on Mainstreaming Biodiversity across Agricultural Sectors*. Rome. <https://doi.org/10.4060/ca7722en>.

³⁵ United Nations Convention to Combat Desertification, Conference of the Parties, thirteenth session, decision 7/COP.13 (see ICCD/COP(13)/21/Add.1).

³⁶ United Nations, *Treaty Series*, vol. 1673, No. 28911.

³⁷ *Ibid.*, vol. 2244, No. 39973.

³⁸ *Ibid.*, vol. 2256, No. 40214.

and the private sector, as well as relevant organizations, farmers, land owners and land managers, indigenous peoples and local communities, women, youth, subnational governments and civil society.

15. When linked to the post-2020 global biodiversity framework, the United Nations Decade on Ecosystem Restoration,³⁹ the United Nations Decade of Family Farming 2019-2028, the 2030 Agenda for Sustainable Development and its Sustainable Development Goals,⁴⁰ the United Nations Framework Convention on Climate Change and the Paris Agreement,⁴¹ and United Nations Convention to Combat Desertification and land degradation neutrality targets, the scope of this plan of action can achieve multiple co-benefits of soil biodiversity processes for improved and more sustainable land-use practices.

16. The plan of action adheres to the *principles* of the ecosystem approach,⁴² which is aimed at providing better biological, physical, economic and human interactions associated with sustainable and productive ecosystems.

17. The plan of action focuses on the improvement of livelihoods, on the implementation of integrated and holistic solutions adapted to national and subnational contexts and in developing synergies for better soil biodiversity research, monitoring and assessment at the corresponding level while ensuring multi-stakeholder participation.

18. The plan of action recognizes the role of farmers, smallholders, small-scale food producers, family farmers, peasants, landowners, land managers, foresters, ranchers, indigenous peoples, local communities, women, youth, education, academia and research bodies, civil society, subnational governments, the private sector, and other relevant stakeholders in the conservation, restoration and sustainable use of soil biodiversity and for the implementation of the plan.

19. FAO is invited to facilitate the implementation of the plan of action, and it is intended to align activities on soil biodiversity more closely with other FAO-related activities including the International Network on Soil Biodiversity and the Global Soil Biodiversity Observatory, to monitor and forecast the conditions of soil biodiversity and soil health as well as with regional and country offices in order to create synergies and provide broader support. The full implementation of the plan of action at the national and subnational levels will depend on the availability of resources.

IV. GLOBAL ACTIONS

20. To support the implementation of coherent and comprehensive policies for the conservation, restoration and sustainable use of soil biodiversity at all levels, the following global actions have been identified and can be considered, as appropriate and on a voluntary basis, by Parties and other Governments, in collaboration with relevant organizations:

(a) Develop protocols, [follow] [adopt] harmonized methods and use tools to collect and digitize soil biodiversity data and to improve mapping capabilities of Parties, acknowledging the differences in soil types across regions;

(b) Include soil biodiversity as an important component of soil description surveys using a large range of tools, including state-of-the-art methods and technology, and the development of bioindicators;

(c) Establish or strengthen, as appropriate, a monitoring network to assess and keep track of the abundance and diversity of multiple soil taxa or units and of the changes in soil biodiversity and its functioning, in accordance with national legislation;

[(d) Prepare a global assessment of soil biodiversity based on the compilation of national information captured from field assessments in all regions that addresses the gaps in soil knowledge at the

³⁹ See General Assembly resolution 73/284 of 1 March 2019.

⁴⁰ General Assembly resolution [70/1](#).

⁴¹ United Nations, *Treaty Series*, Registration No. I-54113.

⁴² Decision [V/6](#).

global level and the need to invest in technologies to map soil biodiversity, especially in developing countries;]

[(e) Develop or identify and implement feasible indicators of soil biodiversity that are related to key ecosystem functions and services [and under the framework of the one-health concept];]

(f) Strengthen education, research and capacity-building to use tools to monitor soil microbiobiodiversity and contribute to human, plant and soil health;

(g) Promote ecosystem-based approaches to conserve, restore and sustainably manage soil biodiversity in response to numerous challenges, such as loss of soil organic carbon and the need for sustainable management of soil in the context of climate change, soil degradation, the control, prevention and suppression of soil-borne diseases, enhancement of soil nutrients, food security [and food safety], reducing water scarcity and disaster risk;

(h) Engage with the United Nations Decade on Ecosystem Restoration, to pursue restoration of degraded soils and their multifunctionality, including the utilization of restored areas and degraded agricultural areas for food production and avoiding expansion to natural areas where feasible;

(i) Encourage civil society groups, research bodies, subnational governments, cities and other local authorities, traditional authorities from indigenous peoples and local communities, to become involved in the implementation of the plan of action;

(j) Encourage awareness-raising on the importance of soil biodiversity and its functions and services through subnational, national, regional and global platforms, such as FAO and GSP, which provide existing channels to be leveraged;

(k) Promote both in-situ and ex-situ conservation, restoration and sustainable use activities and management practices while strengthening the systems of knowledge of indigenous peoples and local communities;

(l) Identify the cumulative impacts of multiple sectors on the quality of soil biodiversity;

[(m) Promote good agricultural practices, including integrated pest management in order to prevent and address negative impacts of fertilizers and pesticides on soil biodiversity, based on risk assessment approaches;]

[(n) Identify sources of financial resources for the implementation of the action plan.]

V. KEY ELEMENTS AND ACTIVITIES

21. The plan of action comprises four main elements that could be undertaken, as appropriate [and on a voluntary basis], by Parties and other Governments, in collaboration with relevant organizations:

- (a) Policy coherence and mainstreaming;
- (b) Encouraging the use of sustainable soil management practices;
- (c) Awareness-raising, sharing of knowledge, technology transfer and capacity-building and development;
- (d) Research, monitoring and assessment.

Element 1: Policy coherence and mainstreaming

Rationale

Soil loss and soil biodiversity loss is a cross-cutting issue, and policies should be designed to integrate considerations not only into the context of sustainable agriculture and sustainable forest management, but also within other sectors, especially infrastructure, mining, energy, transport and spatial planning. Appropriate and coherent national and subnational policies are needed to provide an effective and

enabling environment to support activities by farmers, with emphasis on small-holders, small-scale food producers, family farmers, women farmers, peasants, and land managers, foresters, indigenous peoples and local communities, youth and all relevant stakeholders. Inclusive policies that take soil biodiversity into consideration and promote its conservation, restoration and sustainable use can provide multiple benefits by linking agriculture, food production, forestry, marine, water, air, human health, culture, spiritual and environmental policies.

Activities

1.1 Promote the importance of mainstreaming soil biodiversity, including the conservation, restoration, sustainable use and management of soil biodiversity into policies aimed at the sustainability of agriculture, and other relevant sectors and support the development and implementation of coherent and comprehensive policies for the conservation, sustainable use and restoration of soil biodiversity at the local, subnational, national, regional and global levels;

1.2 Foster activities to safeguard and promote the importance as well as the practical application of soil biodiversity, and integrate them into broader policy agendas for food security, ecosystem and landscape restoration, climate change adaptation and mitigation, urban planning and sustainable development, including the post-2020 global biodiversity framework, UNCCD 2018-2030 Strategic Framework and the Sustainable Development Goals;

1.3 Promote the implementation of good practices of sustainable soil management⁴³ as a vehicle to promote integrated and holistic solutions that recognize the key role of above-ground/below-ground biodiversity interactions and of indigenous peoples and local communities and their traditional knowledge and practices, and that consider local contexts and integrated land-use planning, in a participatory manner;

1.4 Promote integrated ecosystem approaches for the conservation, restoration and sustainable use of soil biodiversity, considering, as appropriate traditional sustainable agricultural practices;

1.5 Promote policies that provide economic incentives for practices that protect or help increase soil biodiversity, avoiding policy measures that would [not be consistent with and would not be in harmony with the Convention [and World Trade Organization rules] and other relevant international obligations and] [distort trade] and create inefficiency; and [eliminate], [reform with a view to] phasing out incentives, including subsidies harmful to soil biodiversity;

1.6 Develop policies and actions based on the recognition that soil biodiversity is central for sustaining all ecosystems and a key asset in restoring soil multi-functionality in degraded and degrading ecosystems;

1.7 Strengthen synergies between scientific evidence, conservation, restoration and sustainable practices, farmer-researcher community practices, agricultural advisory services and traditional knowledge of indigenous peoples and local communities to better support policies and actions;

1.8 Address linkages between soil biodiversity [and human health], nutritious, healthy diets and pollutants exposure, [including pesticides, veterinary drugs, and overflow of fertilizers];

1.9 Promote ways and means to overcome obstacles to the adoption of good practices in sustainable soil management associated with land tenure, the rights of users of land and water, in particular women, the rights of indigenous peoples and local communities, and the rights of peasants and other people working in rural areas, in accordance with national legislation and international instruments, recognizing their important contributions through their knowledge and practices, gender equality, access to financial services, agricultural advisory services and educational programmes;

1.10 Consider the use and implementation of existing tools and guidance at the national, subnational, regional and global levels, such as the FAO agroecology knowledge hub, the FAO Voluntary Guidelines for

⁴³ See FAO 2017. *Voluntary Guidelines for Sustainable Soil Management*. Food and Agriculture Organization of the United Nations. Rome. <http://www.fao.org/3/a-b1813e.pdf>

Sustainable Soil Management,³³ the FAO's Revised World Soil Charter,⁴⁴ the Code of Conduct on Pesticide Management⁴⁵ and the International Code of Conduct for the Sustainable Use and Management of Fertilizers;⁴⁶ the Committee on World Food Security's Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forest in the Context of National Food Security;⁴⁷

1.11 Encourage Parties to include soil biodiversity in national reports and national biodiversity strategies and action plans, and coordinate at the national and subnational levels, in order to increase and improve public and private actions that improve soil biodiversity;

1.12 Promote coordinated spatial planning and other approaches to reduce the loss of soil and soil biodiversity and implement adequate monitoring of soil sealing.

Element 2: Encouraging the use of sustainable soil management practices

Rationale

Management practices and land-use decisions undertaken by farmers, ranchers, landowners, land managers, foresters, indigenous peoples, local communities, women and youth and all relevant stakeholders influence ecological processes, including soil-water-plant-atmosphere interactions with biodiversity. There is increasing recognition that the sustainability of agriculture and other managed systems depends on the optimal use of the available natural resources, biogeochemical cycles, biodiversity, including soil biodiversity, its functions and its contribution to ecosystem services. Improvement in sustainability requires the optimal use and management of soil fertility and soil physical properties and soil restoration, which rely, in part, on soil biological processes and soil biodiversity. Direct and indirect drivers of soil biodiversity loss need to be addressed at multiple scales, and special attention is needed at the farm and forestry level and across entire ecosystems.

Activities

2.1 Promote the improvement of soil health and the enhancement of soil organism abundance and diversity, by improving their food, water and habitat conditions through sustainable agricultural practices,^[48] [such as agroecology and ecological intensification] [sustainable intensification] and the restoration of degraded soils to increase ecosystem connectivity and restore production areas;

2.2 Develop, enhance and implement science-based risk assessment procedures, in conformity with risk assessment techniques developed by relevant international organizations, [as appropriate], on a regular basis, considering field-realistic exposures and longer-term effects, [for veterinary drugs (e.g., antibiotics⁴⁹), pesticides and pesticide-coated seeds, pollutants (including emerging substances, such as microplastics and new organic compounds), biocides and other contaminants to inform risk management decisions, to limit or minimize pollution and to promote the science-based application and minimization of veterinary drugs, fertilizers and pesticides (e.g., nematicides, fungicides, insecticides and herbicides)] [reducing the production and use of synthetic fertilizers,] to enhance the conservation, restoration and sustainable use of soil biodiversity, [human health and well-being];

2.3 Facilitate, for all relevant stakeholders, access to information, policies, tools and enabling conditions, such as access to technologies, innovation and funding, as well as to traditional practices that promote the conservation, restoration and sustainable use of soil biodiversity at the field level, taking into account the

⁴⁴ <http://www.fao.org/documents/card/en/c/e60df30b-0269-4247-a15f-db564161fee0/>

⁴⁵ <http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/code/en/>

⁴⁶ <http://www.fao.org/3/ca5253en/ca5253en.pdf>

⁴⁷ <http://www.fao.org/3/i2801e/i2801e.pdf>

^[48] These practices may include: agroforestry; the maintenance of adequate soil organic matter content and soil microbial biomass; provision of sufficient vegetative cover; multicropping; longer crop rotation; minimization of soil disturbance and tillage; no-tillage systems; use of organic fertilizers; use of biological nitrogen fixation; appropriate management of agricultural waste; integrated pest management; optimization and minimization of agricultural chemicals, in accordance with science-based risk assessment; and presence of native habitats within agricultural landscapes.]

⁴⁹ [For example, antibiotics used on livestock that can seep into the soil.]

full and effective participation of indigenous peoples, local communities, women, youth, education, academia and research bodies, subnational governments and stakeholders in the implementation of this Initiative;

2.4 Encourage sustainable agricultural practices, [such as agroecology, integrated production systems (crop, livestock, aquaculture, forest and agroforestry), no-tillage systems, crop rotation in the field, fallow periods, inter-cropping, perennial crops, multicropping, cover crops, mixed crops, addition of organic matter and preservation and development of perennial vegetation in field margins and biodiversity refuges, and of landscape features, such as hedgerows, contour bunds and terraces,] recognizing the wide range of approaches to enhance the sustainability of agricultural systems;

2.5 Facilitate site-specific remediation of contaminated soils,⁵⁰ preferring those alternatives that show minor risks to biodiversity, while exploring the implementation of bioremediation strategies that use native microorganisms;

2.6 Prevent the introduction and spreading, and minimize the impact of invasive alien species that present a direct and indirect risk to soil biodiversity, and monitor the dispersion and eradicate, control or manage those already established;

2.7 Protect, restore and conserve soils that provide significant ecosystem services, including through the use of sustainable soil management practices;

2.8 Promote sustainable soil and associated water and land management practices that maintain, restore and promote the resilience of carbon-rich soils (such as peatlands, black soils, mangroves, coastal wetlands, seagrasses and permafrost);

2.9 Promote sustainable soil and associated water and land management practices that support the achievement of land degradation neutrality;

2.10 Promote ecosystem-based approaches to avoid land-use changes that cause soil erosion, the removal of surface cover and loss of soil moisture and carbon, and implement mitigation measures to alleviate degradation [while preventing and avoiding potential impacts arising from the implementation of approaches and practices of soil mitigation on indigenous peoples and local communities, small-scale food producers and peasants];

2.11 Promote conservation, restoration and sustainable management of soil biodiversity, and implement where appropriate, ecosystem-based approaches for adaptation, mitigation and disaster risk reduction [while preventing and avoiding potential impacts arising from the implementation of approaches and practices of soil mitigation on indigenous peoples and local communities, small-scale food producers and peasants];

Element 3: Awareness-raising, sharing of knowledge and capacity-building

Rationale

Increased awareness and understanding are critical for the development and promotion of improved practices for the conservation, restoration and sustainable use of soil biodiversity and ecosystem management. This requires collaboration that ensures the full and effective participation of and feedback from a broad range of stakeholders, including farmers, landowners, land managers, smallholders and small-scale food producers, indigenous peoples and local communities, women and youth, decision makers, education, academia and research bodies and relevant institutions and organizations to ensure effective actions and collaborative mechanisms. Strengthening capacities to promote integrated and multidisciplinary approaches is needed to ensure the conservation, restoration, sustainable use and enhancement of soil

⁵⁰ The importance of special soils creating environments for specific soil biota (for example, natural extremely acidic or alkaline soils; natural hypersaline soils; natural soils containing high quantities of rare elements) should be recognized. Although they are not necessarily productive or high biodiverse soils, they host important communities as gene reserves and merit protection as they may contain unknown, adapted organisms that can be useful in the future.

biodiversity. This will further improve information flows and cooperation among actors to identify best practices and foster the sharing of knowledge and information.

Activities

3.1 Increase understanding and appreciation of the role of soil biodiversity and soil health in agroecosystems, forests, silvopastoral and other managed ecosystems, and of their effect on land management practices and ecosystem health;

3.2 Increase understanding and appreciation of the causes and consequences of soil biodiversity decline in specific agroecosystems, other managed ecosystems and natural environments and engage targeted key stakeholder groups, including farmers, ranchers, foresters, civil society, education, academia and research bodies, the mass media, and consumer organizations on the importance of soil biodiversity for health, well-being and livelihoods;

3.3 Strengthen understanding and appreciation of the impacts of sustainable land-use and soil-management practices, as an integral part of agricultural and their importance for sustainable livelihoods;

3.4 Promote awareness-raising and sharing of knowledge through tools and digital technology and promote capacity-building and mutual learning, including at the local and field levels by developing collaborative activities, such as peer-to-peer learning, for the promotion of best practices for soil biodiversity assessment, management and monitoring for all land management activities;

3.5 Enhance education on, and knowledge of soil biodiversity, soil health and the ecosystem functions and services they provide, through the update of educational curricula for professionals, in such fields as economy, agronomy, veterinary, taxonomy, microbiology, zoology and biotechnology, and through the creation and dissemination of training and information materials on soil biodiversity;

3.6 Support citizen science campaigns and awareness-raising activities to engage relevant stakeholders in the conservation, restoration and sustainable use of soil biodiversity, including celebrations on 5 December of World Soil Day, which was designated by the General Assembly of the United Nations in 2013;⁵¹

3.7 Build and strengthen the capacities of farmers, landowners, land managers, foresters, ranchers, the private sector, education, academia and research bodies, indigenous peoples and local communities, women and youth, and vulnerable communities, as appropriate, in designing and implementing sustainable soil management practices and the sustainable application of soil biodiversity and consider traditional knowledge and practices;

3.8 Compile, protect, maintain, promote [and share] traditional knowledge, innovations and sustainable practices of indigenous peoples and local communities, with their [free, prior and informed consent] [prior and informed consent, free, prior and informed consent, or approval and involvement], related to soil biodiversity maintenance, soil fertility and sustainable soil management and promote work mechanisms between traditional agricultural knowledge and scientific knowledge that contribute to implementing sustainable agricultural practices in accordance with local agroecological and socioeconomic contexts and needs;

3.9 Develop partnerships and alliances that support multi-disciplinary approaches, foster synergies and ensure multi-stakeholder participation with respect to sustainable soil management;

3.10 Foster scientific and technical cooperation and transfer of technology to promote access to the latest technologies and molecular tools for modern soilless agriculture, soil biodiversity assessment and monitoring in developing countries [in particular the least developed countries and small island developing States among them, and countries with economies in transition].

⁵¹ See General Assembly resolution [68/232](#) of 20 December 2013 on World Soil Day and International Year of Soils.

Element 4: Research, monitoring and assessment

Rationale

Assessing and monitoring the status and trends of soil biodiversity, of measures for the conservation, restoration and sustainable use of soil biodiversity and of the outcomes of such measures, is fundamental to inform adaptive management and to guarantee the functioning of all terrestrial ecosystems, including the long-term productivity of agricultural soils. Soil biodiversity data that can be globally aggregated is needed to guide the decision-making process, with particular focus on those regions and areas currently lacking data. Education, academia and research bodies and relevant international organizations and networks should be encouraged to undertake further research, taking into consideration soil biodiversity functions, regional pedodiversity,⁵² and relevant traditional knowledge, [free prior and informed consent] [with prior and informed consent, free prior and informed consent, or approval and involvement] to address gaps in knowledge, and to expand research and to support coordinated global, regional, national, subnational and local monitoring efforts.

Activities

- 4.1** Increase national capacities on soil biodiversity taxonomy and address taxonomic assessment needs in different regions, and design targeted strategies to fill the existing gaps;
- 4.2** Promote further research to identify ways to integrate the application of soil biodiversity into farming systems as part of efforts to improve yield quantity and facilitate the harmonization of protocols for research, data collection, management and analysis, storage and curation of samples;
- 4.3** Promote further research to identify risks to soil biodiversity under climate change and potential adaptation measures and mitigation tools, as well as risks caused by the use of hazardous or toxic chemicals, including the potential loss of key species and their habitats, as well as the role of soil biota in wider ecosystem resilience and restoration that contributes, as appropriate, to the formulation of policy plans;
- 4.4** Promote research and implementation of integrated pest management practices, [biological pest control, reverse logistics for pesticide packaging, and the application of biological inputs,] as they interact with functions and services provided by soil biodiversity [, taking into account the negative impact of unsustainable use of pesticides on soil organisms to support the development of more feasible and sustainable alternatives];
- 4.5** Promote capacity-building and research in order to qualify and quantify soil biodiversity in agriculture and in other managed ecosystems and cultural landscapes, and to develop consistent and comparable protocols to monitor soil quality;
- 4.6** Promote research, information management and dissemination, data collection and processing, community-based monitoring, transfer of knowledge and technologies, including modern geospatial technologies, [genomic technologies] [molecular biology techniques] and networking;
- 4.7** [Promote] [Ensure] access to the fair and equitable sharing of the benefits arising out of the utilization of genetic resources in the soil, considering the potential to develop new products and medicines, in line with the third objective of the Convention and with the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization;
- 4.8** Mobilize targeted participatory research and development, ensuring gender equality, women's empowerment, youth, [gender-responsive approaches] and the full and effective participation of indigenous peoples and local communities in all stages of research and development;
- 4.9** Develop and apply tools to assess the status of soil biodiversity in all regions and to address gaps in knowledge in all levels, by using a range of available tools, from traditional macroorganism and soil fauna

⁵² The term "pedodiversity" and many tools for studying pedodiversity were adapted from biology. Pedodiversity, for example, can be measured just as biodiversity is measured by means of special indices showing the abundance of species and the taxonomic distances between them. A set of mathematical methods, both parametric and non-parametric, can be applied to quantify soil spatial heterogeneity

observation and analysis, national and subnational statistics, soil surveys, to cutting-edge approaches and new technologies, as appropriate;

4.10 Generate data sets on soil biodiversity, pedodiversity and on soil degradation at the national, subnational and regional levels through a standard monitoring process that allows the creation of regional, national, subnational and local visual maps, georeferenced information systems and databases to indicate the status and trends of soil biodiversity and crop-specific vulnerability to support informed decision-making and comparisons;

4.11 Promote dissemination, co-creation of knowledge and exchange of information and data, in line with Articles 8(j) and 8(h) of the Convention on Biological Diversity and, through transdisciplinary approaches, ensure that all decision makers and stakeholders have access to reliable and up-to-date information;

4.12 Encourage the development of harmonized definitions, standard baselines, indicators and national and subnational-level monitoring activities of soil biodiversity with the inclusion of a vast range of soil organisms, from microorganisms to fauna, as well as monitoring the effectiveness of soil management interventions in the field;

4.13 Promote regional cooperation to compile, systematize and share [data and] lessons resulting from experiences or case studies on the implementation of sustainable soil management practices in the context of agricultural practices with positive impacts on soil biodiversity;

[**4.14** Encourage and support the development of community-based monitoring and information systems or simplified assessment methodologies and tools for measuring soil biodiversity, which are accessible by all regions of the world;]

4.15 Promote research and capacity-building on sustainable soil management practices, [including agroecological and other biodiversity-friendly management practices,] [including sustainable intensification,] that ensure conservation, restoration and sustainable use of soil biodiversity;

4.16 Promote development of commercial application, in a sustainable manner, of products based on soil biodiversity.

VI. SUPPORTING VOLUNTARY GUIDANCE, TOOLS, ORGANIZATIONS AND INITIATIVES RELATING TO THE CONSERVATION AND SUSTAINABLE USE OF SOIL BIODIVERSITY

22. Relevant voluntary guidance and tools developed under the Convention, and those developed by partner and relevant organizations and initiatives, such as the Voluntary Guidelines for Sustainable Soil Management and the World Soil Charter, issued by FAO, will be made available in the clearing-house mechanisms.

24/7. Biodiversity and health

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

The Conference of the Parties,

Recalling decisions XII/21, XIII/6 and 14/4 on biodiversity and health and decision XIII/3 on the mainstreaming and integration of biodiversity within and across sectors,

Recalling the Sharm El-Sheikh declaration on the theme of *Investing in biodiversity for people and the planet* and the Kunming declaration on the theme of *Ecological civilization: building a shared future for all life on Earth*,

[*Noting* the resolution 48/13 [on the human right to a clean, healthy and sustainable environment][entitled “The human right to a clean, healthy and sustainable environment”], adopted by the Human Rights Council,]

Also noting the resolution 5/6 on biodiversity and health of the United Nations Environment Assembly 5.2,

Taking note of the definition of One Health by the One Health High-level Expert Panel:

“One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and inter-dependent. The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development.”

Noting that this definition has not been discussed or agreed by the Convention and its Protocols,

Recognizing that the COVID-19 pandemic has further highlighted the importance of the relationship between health and well-being, and biodiversity, including the urgent need to reduce pressures on habitats and to decrease ecosystem degradation and consequently reduce the risk of pathogen spillover and outbreak, the importance of early warning, surveillance and prompt information-sharing for pandemic prevention, preparedness and response, and the need to address inequities in global health, including with respect to [equal and] equitable access to medicines, vaccines, diagnostics, and medical equipment,

Recognizing also the relevance of sustainable consumption and production patterns on biodiversity and health linkages,

Recognizing further that the One Health approach, among other holistic approaches, could contribute to the reduction of the risk of diseases of zoonotic origin, vector-borne and other infectious diseases, and to health and well-being for all,

[*Taking note* of the 2019 Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services⁵³ stating that zoonotic and vector-borne diseases are significant threats to human health, and that emerging infectious diseases in wildlife, domestic animals, plants or people can be exacerbated by human activities,]

Emphasizing the critical role of genetic resources, [in any form][digital sequence information,] [and associated traditional knowledge], in the research and development of health products and services, [including in the context of addressing emerging diseases which have potential to become pandemics,] and the importance of the fair and equitable sharing of benefits arising from their utilization in this regard, in line with the Convention, [and in a mutually-supportive manner with other relevant international agreements and instruments,]

⁵³ <https://ipbes.net/global-assessment>, approved by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services plenary at its 7th session in May 2019.

Noting ongoing efforts to draft and negotiate a World Health Organization convention, agreement or other international instrument to strengthen pandemic prevention, preparedness and response, [as well as ongoing negotiations to amend the International Health Regulations (2005),] and the need to [ensure alignment with the provisions][be consistent with, and not run counter to the objectives] of the Convention and its Protocols,

1. *Encourages* Parties and their subnational and local governments, and invites other Governments, in accordance with national circumstances and priorities, where appropriate, and relevant stakeholders:

(a) To take actions for a sustainable and inclusive recovery from the COVID-19 pandemic, which contribute to the conservation and sustainable use of biodiversity, and thereby contribute to minimizing the risk of future diseases of zoonotic origin, taking into account the One Health approach, among other holistic approaches;

(b) To further integrate the One Health approach, among other holistic approaches, in their national biodiversity strategies and action plans, national health plans, as appropriate, to support the implementation of the post-2020 global biodiversity framework;

(c) To further support capacity-building development for mainstreaming biodiversity and health linkages into the implementation of the post-2020 global biodiversity framework;

(d) To strengthen compliance with international and national provisions on access and benefit-sharing, in order to enhance the fair and equitable sharing of benefits arising from the utilization of genetic resources [and associated information] in the relevant health sectors.

2. *Invites* the Quadripartite for One Health (comprising the World Health Organization, the World Organisation for Animal Health, the Food and Agriculture Organization of the United Nations, and the United Nations Environment Programme), the One Health High-level Expert Panel, and other relevant expert groups and initiatives:

(a) To take into account in their work [and outcomes] the linkages between health and biodiversity, [and] the need for the One Health approach, among other holistic approaches, pursuant to decisions XIII/6 and 14/4[, and the need to recognize socioeconomic inequities between developing and developed countries, particularly health inequalities, as well as the principles of equity and solidarity];

(b) To contribute with guidance, interdisciplinary education and training, to the implementation of health-related elements and the application of the One Health approach, among other holistic approaches, in the post-2020 global biodiversity framework;

(c) To contribute to the development of, and reporting on, health-related indicators of the monitoring framework for the post-2020 global biodiversity framework;

(d) To collaborate with the Executive Secretary in providing Parties with capacity-building, technology transfer, and resource mobilization opportunities for mainstreaming biodiversity and health linkages.

[3. *Invites* the Global Environment Facility, in accordance with its mandate, as appropriate, to consider providing technical and financial support for mainstreaming biodiversity and health linkages;]

4. *Invites* Parties, other Governments and all relevant donors and funding organizations in a position to do so, to consider providing technical support and mobilizing resources for mainstreaming biodiversity and health linkages;

[5. *Requests* the Executive Secretary, subject to the availability of resources, in consultation with the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice, and in collaboration with members of the Quadripartite for One Health, to complete the work pursuant to decision 14/4, paragraph 13 (b)(c) on targeted messages and a draft global action plan, drawing on the deliberations of the resumed session of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, as follows:

(a) To produce an updated version of the draft global action plan and targeted messages based on the inputs received from Parties, other Governments, indigenous peoples and local communities, women, youth, and other relevant stakeholders [and prioritize the issues of equity, particularly through the fair and equitable sharing of benefits arising from the utilization of genetic resources, [digital sequence information] and associated [traditional] information];

(b) To invite Parties, other Governments, indigenous peoples and local communities, women, youth, and other relevant stakeholders to review the updated version of the draft global action plan;

(c) To make the outcomes of this work available for consideration by the Subsidiary Body on Scientific, Technical and Technological Advance at a future meeting, with a view to making recommendations to the Conference of the Parties at its sixteenth meeting.]

24/8. Invasive alien species

The Subsidiary Body on Scientific, Technical and Technological Advice

1. *Notes* the outcomes of the Online Forum on Invasive Alien Species⁵⁴ and the December 2019 meeting of the Ad Hoc Technical Expert Group on Invasive Alien Species contained in the report of the Ad Hoc Technical Expert Group;⁵⁵

2. *Welcomes* the work undertaken by the Inter-agency Liaison Group on Invasive Alien Species and by the World Customs Organization to address the risks of living organisms as environmentally hazardous goods in transport and cross-border e-commerce;⁵⁶

3. *Encourages* Parties and invites other Governments and international organizations to collaborate to share information, technology and expertise on managing e-commerce in alien and invasive alien species to improve the ability to manage shipments for compliance verification;

4. *Encourages* Parties and invites other Governments, subnational governments, where appropriate, and relevant organizations to increase the accessibility and standardization of data formats and analysis on past management activities across species and ecosystems to support evidence-based management prioritization and decision-making, updating or developing, as appropriate, standardized voluntary guidelines for vocabulary and on how to collate and report on such data (including species, management objective, cost and/or effort, area covered, and outcome of management actions), to assist in the creation of common approaches to sharing and reporting experience and information;

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

The Conference of the Parties,

Noting with concern that invasive alien species is one of the main drivers of biodiversity loss worldwide, as reported by the Intergovernmental Platform on Biodiversity and Ecosystem Services, in its 2019 *Global Assessment Report*,

Noting the increasing volume of international consignments containing living organisms and propagules, as well as changes in trade patterns and consumer behaviour and habits,

Recognizing that anthropogenic changes in the environment, including climate change, land- and sea-use change, overexploitation and pollution, add further complexity and increased risk of biological invasions and consequent threats to biodiversity,

Emphasizing the need for increased collaboration among Parties, other Governments, subnational governments, where appropriate, indigenous peoples and local communities, relevant organizations and all relevant sectors, including business,

Recalling decisions XII/16, XIII/13 and 14/11, and recognizing that voluntary guidance in relation to invasive alien species and trade in live organisms may also apply to e-commerce,

1. *Takes note* of the outcomes of the Online Forum on Invasive Alien Species⁵⁷ and the meeting of the Ad Hoc Technical Expert Group on Invasive Alien Species including:⁵⁸

(a) Methods for cost-benefit and cost-effectiveness analysis which best apply to the management of invasive alien species, and risk analysis on the potential consequences of the introduction of invasive alien species on social, economic and cultural values;

⁵⁴ CBD/IAS/AHTEG/2019/INF/1.

⁵⁵ [CBD/IAS/AHTEG/2019/1/3](#).

⁵⁶ See CBD/SBSTTA/24/10.

⁵⁷ CBD/IAS/AHTEG/2019/INF/1.

⁵⁸ CBD/IAS/AHTEG/2019/1/3.

(b) Methods, tools and measures for the identification and minimization of additional risks associated with cross-border e-commerce in live organisms and the impacts thereof;

(c) Methods, tools and strategies for the management of invasive alien species as it relates to prevention of potential risks arising from climate change and associated natural disasters and land-use changes;

(d) Use of existing databases on invasive alien species and their impacts, to support risk communication;

(e) Additional advice and guidance on invasive alien species management.

2. *Requests* the Executive Secretary to organize a peer-review process to solicit advice, pursuant to decision 14/11, on annexes I to VI below, taking into account the earlier decisions of the Conference of the Parties, [multilaterally agreed rules and specific circumstances in different regions,] to convene a moderated open-ended online forum on the results of the peer-review process and to make the outcomes available for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice, with a view to making recommendations to the Conference of the Parties at its sixteenth meeting;

[3. *Invites* Parties, other Governments and relevant organizations to more explicitly include diverse social and cultural values of biodiversity across communities at the national and/or subnational levels, including those of indigenous peoples and local communities, women, youth and the elderly, [noting the assessment of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services regarding the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services,⁵⁹] and in accordance with the rights and obligations derived from relevant multilateral agreements, when assessing the costs, benefits and prioritization of management of invasive alien species, and to build on existing processes, and international and national best practices for engagement of relevant actors, in order to feed effectively into multi-criteria decision-making processes based on scientific evidence and risk assessments;]

4. *Welcomes* the inclusion of invasive alien species by the World Customs Organization in the Technical Specifications under its Framework of Standards on Cross-border E-Commerce;

5. *Encourages* Parties and invites other Governments and relevant organizations to develop national, regional or international open access portals or other websites directed to the general public, to raise cooperation, awareness and understanding of the threats of invasive alien species to biodiversity and ecosystems, and offering practical help for identification and management of invasive alien species, as well as to enlist the help of the public in reporting occurrences, and in controlling and managing invasive alien species;

[6. *Reaffirms* that, when considering methods, such as engineered gene drives, to manage invasive alien species, the precautionary approach described in the preamble of the Convention and the Cartagena Protocol should be applied, recalling paragraph 11 of decision 14/19;]

7. *[Urges]/[Encourages]* Parties and other Governments to foster monitoring of the effects of large-scale changes of pathways and releases of alien translocated or captive raised populations of, for example, fish, trees and game species, on the genetic diversity of local native populations and their long-term ability to adapt to a changing environment, to take adequate actions to address any detrimental effects on native populations, and to share knowledge and best practices with other Parties, as appropriate;

⁵⁹ Expected to be published in July 2022.

8. *Invites* the Secretariat of the United Nations Economic and Social Council, the World Customs Organization, the International Plant Protection Convention, the World Organisation for Animal Health, the World Health Organization, the Food and Agriculture Organization of the United Nations and its Codex Alimentarius, the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, and the Invasive Species Specialist Group of the International Union for Conservation of Nature, within the scope of their respective mandates, to support the national implementation of the post-2020 global biodiversity framework with regard to targets and actions related to invasive alien species, including their monitoring and reporting;

9. *Notes* that the Economic and Social Council's Sub-Committee of Experts on the Transport of Dangerous Goods will consider including environmentally hazardous living organisms in chapter 2.9, class 9, of the United Nations *Recommendations on the Transport of Dangerous Goods - Model Regulations*,⁶⁰ at its upcoming session, taking into account the risk of unintentional introduction of invasive alien species, including pathogens, in collaboration with the Inter-agency Liaison Group on Invasive Alien Species and other experts;

10. *[Welcomes]/[Takes note of]* the ongoing work of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention)⁶¹ on the subject of emerging infectious diseases caused by alien pathogens and parasites, as well as invasive alien species that may act as vectors or hosts of pathogens and parasites,⁶² in view of the growing threat that this presents to biodiversity, and invites Parties, other Governments and organizations to submit information to the Executive Secretary on experiences and relevant initiatives of horizon scanning, monitoring and managing emerging infectious diseases affecting biodiversity [and, especially, the health of wild animals and plants, caused by alien pathogens or parasites and invasive alien species acting as vectors or hosts for pathogens or parasites];

[11. *[Welcomes]/[Takes note of]* the ongoing work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on the thematic assessment of invasive alien species and their control, expected to be published in May 2023;]

[12. *Invites* the Invasive Species Specialist Group of the International Union for Conservation of Nature to undertake assessments on the magnitude of the negative impacts from alien pathogens or parasites and invasive alien species that may transmit pathogens or parasites that may affect biodiversity and make the information available through the Global Invasive Species Database of the International Union for Conservation of Nature;]

13. *Requests* the Executive Secretary, [in consultation with the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice,] subject to the availability of resources:

[(a) To prepare a proposal to the Economic and Social Council's Sub-Committee of Experts on the Transport of Dangerous Goods on a globally harmonized labelling system for consignments of environmentally hazardous living organisms or propagules, consistent and in harmony with international agreements and in consultation with the Inter-agency Liaison Group on Invasive Alien Species and the Secretariat of the Sub-Committee, for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice prior to the sixteenth meeting of the Conference of the Parties;]

[(b) To collaborate with the World Tourism Organization, to consider joint efforts in addressing tourism as a major sector for introducing invasive alien species and the management thereof;]

⁶⁰ United Nations publication, Sales No. E.19.VIII.1.

⁶¹ United Nations, *Treaty Series*, vol. 1284, No. 21159.

⁶² See, for example, T-PVS/Inf(2019)18.

(c) To continue collaboration with the International Plant Protection Convention, as well as other members of the Inter-agency Liaison Group on Invasive Species towards developing a globally harmonized and operational voluntary guidance on the [use and transport of sea containers]/[cleanliness of sea containers and their cargos];

(d) To continue and enhance collaboration with members of the Inter-agency Liaison Group on Invasive Alien Species, including with a view to determining how approaches for the prevention, control and management of invasive alien species may be usefully applied to biological invasions of pathogenic agents, in particular zoonotic pathogens;

(e) To develop, on the basis of the national reports and in cooperation with the Inter-agency Liaison Group on Invasive Alien Species and other relevant organizations, advice on the evaluation of existing capacity and needs for monitoring, preventing and controlling the introduction and spread of invasive alien species and their harmful effects to biodiversity, taking into account relevant multilateral instruments, and thereafter as relevant, update the online toolkit on invasive alien species of the Convention on Biological Diversity and develop additional training materials for such topics as management of priority species and pathways of introduction, identification and management of priority areas, as well as the application of international data standards in national and regional databases containing information on invasive alien species;

(f) To collaborate with members of the Inter-agency Liaison Group on Invasive Alien Species and other relevant organizations, with a view to identifying gaps in knowledge, monitoring, and management of emerging infectious diseases affecting biodiversity and human health that relate to or are facilitated by invasive alien species, and to propose measures for mitigating and minimizing the negative effects on biodiversity and human health and preventing the further introduction and spread of relevant invasive alien species;

(g) To report the progress on the above to the Subsidiary Body on Scientific, Technical and Technological Advice prior to the sixteenth meeting of the Conference of the Parties.

Annex I

DRAFT METHODS FOR COST-BENEFIT AND COST-EFFECTIVENESS ANALYSIS WHICH BEST APPLY TO THE MANAGEMENT OF INVASIVE ALIEN SPECIES

(PROVISIONAL ADVICE PURSUANT TO DECISION 14/11, ANNEX II, PARAGRAPH 1 (A))

1. Aichi Biodiversity Target 9 states the need for invasive alien species and pathways to be identified and prioritized and for priority species to be controlled or eradicated. The extended technical rationale for this target (CBD/COP/10/INF/12/Rev.1) includes the statement that “Given the multiple pathways for invasive species introductions and that multiple alien species are already present in many countries, it will be necessary to prioritize control and eradication efforts to those species and pathways which will have the greatest impact on biodiversity and/or which are the most resource effective to address.” Accordingly, a clear need exists to develop methods to prioritize invasive alien species and the active management thereof.

2. Established cost-benefit and cost-effectiveness methods are widely available and already in use in some regions to assist invasive alien species management decision-making, including prioritization. However, these existing analyses typically require detailed information, for example on costs, and may need technical expertise to apply. Including consideration of biodiversity, animal welfare and public acceptability in cost-benefit analyses can also be problematic as, although possible, these are often difficult to represent in simple financial terms.

3. The final decision to eradicate or manage an invasive alien species carries significant costs and risks. While these rapid methods may produce “short lists” of priority species to consider for management, more detailed pilot studies and economic assessments are recommended before commitments to management are made.

4. To support risk management, methods may be required when large numbers of species need to be rapidly assessed, where detailed information is often lacking and where non-monetary based inputs on social and cultural values are required.

A. Multi-criteria methods

5. Multi-criteria methods can be used in circumstances where more detailed, but data-hungry approaches, such as cost-benefit analysis, may be impractical. Multi-criteria methods provide a route to the rapid assessment of options and are already widely used to support invasive alien species decision-making – for example through the risk assessment process. There is scope to use multi-criteria methods more widely to support decision-making to answer questions such as how to prioritize species for management, when to choose between prevention, eradication or long-term management objectives, how to produce rapid assessments of large numbers of species, or how to compare the feasibility of different management options?

6. Multi-criteria decision-making is concerned with structuring and solving decision and planning problems involving multiple criteria. By breaking problems down into their different components they can be used to assess decisions in a transparent and rational manner, they can be rapidly applied to large numbers of cases, and by using expert opinion, or the knowledge of indigenous peoples and local communities with their prior and informed consent, free prior and informed consent or approval and involvement, they can still be applied where published information is lacking. These modelling and methodological tools are designed to find optimal solutions to complex problems where assessment criteria or data are measured in different currencies.

7. Because multi-criteria approaches often operate in the absence of published data, this may raise concerns over the use of opinion or unsubstantiated information. The way in which multiple criteria are combined to support an overall conclusion can also be problematic and is often based on pragmatism rather than a validated approach. Nevertheless, multi-criteria methods and cost-benefit analysis benefit complement each other, for example an initial prioritization based on a large number of options may be undertaken using a multi-criteria approach, but the proposed priorities may then be more fully assessed using a more rigorous approach such as cost-benefit before resources are committed.

B. Advice for actions

8. A coordinated national, subnational and local response strategies should be developed to minimize incursions and impacts of invasive alien species, such as national, subnational and local invasive species strategies and action plans as a part of national, subnational and local biodiversity strategies and action plans. This could include strengthening and coordinating existing programmes, identifying and filling gaps with new initiatives, and building on the strengths and capacities of partner organizations, including academia and scientific institutions, indigenous peoples and local communities and women and youth at the national, regional and local levels.

9. The best available prioritization methods should be applied to prioritize management of dispersal pathways of invasive alien species within as well as between countries, and for assessing feasibility and cost-effectiveness. These methods should be in a form compatible and complementary to existing approaches to risk assessment. Methods used for risk-prioritization of invasive alien species include cost-benefit, cost-effectiveness and risk analysis. However, the detailed information required to undertake cost-benefit and cost-effectiveness analyses are often in short supply or uncertain, and these analyses require sufficient technical expertise. A number of science-based prioritization methodologies for invasive alien species, horizon-scanning, and impact and management for single or multiple types of invasive alien species have been developed by Parties or independent international science teams and are worth consideration by other countries.

10. Knowledge exchange should be promoted, as well as training and capacity-building to apply the best available prioritization methods consistently across environments.

11. The best available methods for prioritizing the invasive alien species to be managed and for assessing feasibility and cost-effectiveness, in a form compatible and complementary to existing approaches

to risk assessment. Multi-criteria decision-making approaches should be used to support risk-based prioritization for management when information required to undertake cost-benefit and cost-effectiveness analysis is lacking or uncertain.

12. States, sectoral authorities and organizations and subnational governments are encouraged to share information on their best practices regarding tools and technologies for the management⁶³ of invasive alien species that can be implemented across sectors at all levels.

13. *Multi-criteria decision-making* approaches can be used, wherever possible, when applying risk analysis, cost-benefit and cost-effectiveness analyses to support risk-based prioritization. Invasive alien species prioritized by actual or potential impacts using such rapid methods can then be considered in more detail to ensure that management, based on clear objectives, is indeed cost-effective and feasible. Multi-criteria decision-making can consider such aspects as effectiveness, practicality, feasibility, likelihood of success, cost, public acceptability, including to indigenous peoples and local communities, women and youth of proposed actions as well as any unintended negative impacts of management alongside the risks and impacts posed by the targeted invasive alien species, in line with relevant multilateral agreements. These methods involve a structured process and can help resolve issues associated with decision-making and planning that involve multiple criteria and are designed to find optimal solutions to complex problems where assessment criteria or data are measured in different ways. They can also be used with expert elicitation when only incomplete or imprecise information is available.

14. Multi-criteria methods to support invasive species prioritization, risk management and decision-making need to be developed further. Opportunities for development include:

(a) There is considerable variation in the methods and approaches to prioritization and decision making used in different countries – reviewing the strengths and weaknesses of other approaches to this issue would be valuable;

(b) Risk management as part of a larger risk analysis process is widely used in other fields, such as plant health – increased dialogue with experts from these fields would help to develop best-practice;

(c) Other considerations will be needed when applying the approach to different management questions;

(d) Cases in which multi-criteria methods have been applied to invasive alien species management decision making are still limited – more trials and applications would help refine the approach;

(e) Where possible, published quantitative data should be used to underpin decision-making, in order to better identify and access key information.

15. It is suggested that guidelines be developed in order to more explicitly include social and cultural values when assessing the costs, benefits and prioritization of management. This could build on existing processes (for example, Socio-economic Impact Classification of Alien Taxa (SEICAT)) and international best practices on stakeholder engagement in decision-making. Decisions and risk analyses should be based on science and should follow international standards agreed under relevant international organizations, such as the agreement on the application of sanitary and phytosanitary measures, as appropriate.

16. It is recommended that efforts be made to increase the accessibility of data and vocabulary on management activities across species and ecosystems to support evidence-based management prioritization and decision-making. This will be assisted by the creation of common approaches to sharing and reporting experience and information, common data formats that include information on the taxon, management objective, cost and/or effort, area covered and the outcome of management. To promote the production of prioritized lists for action, there is a need for knowledge exchange, training and capacity-building.

⁶³ This refers to the “application of measures to prevent the introduction of, control or eradicate invasive alien species” (see [CBD/IAS/AHTEG/2019/1/2](#), para. 13(e)).

17. It is recommended that, in communicating risks associated with invasive alien species it be highlighted that these risks can affect biodiversity and the economy of indigenous regions/peoples and local communities as well as public health.

Annex II

DRAFT METHODS, TOOLS AND MEASURES FOR IDENTIFICATION AND MINIMIZATION OF ADDITIONAL RISKS ASSOCIATED WITH CROSS-BORDER E-COMMERCE IN LIVE ORGANISMS AND THE IMPACTS THEREOF

(PROVISIONAL ADVICE PURSUANT TO DECISION 14/11, ANNEX II, PARAGRAPH 1 (B))

A. Suggested actions for national and/or subnational authorities/border agencies

1. Legislation and policy set by States

1. Investigate and evaluate the risks posed by all forms of e-commerce to the introduction and spread of invasive alien species and their parts and, if necessary, develop and implement appropriate risk management activities. See also decision XII/17, paragraph 9 (d).

2. Implement when addressing trade with invasive alien species through e-commerce, decision XIII/13, paragraphs 7 and 8 and use the voluntary guidance on devising and implementing measures to address the risks associated with the introduction of alien species as pets, aquariums and terrarium species, and as live bait and live food (decision XII/16) and the supplementary guidance for avoiding unintentional introductions of invasive alien species associated with trade in live organisms (decision 14/11), as relevant.

3. Review existing national and/or subnational legislation, regulations and policies to verify that e-commerce is adequately addressed or make changes as needed to ensure that enforcement actions can be taken, in accordance with decision XIII/13, paragraph 2.

4. Establish mechanisms to identify commodities of concern that may be obtained via e-commerce with a focus on high and potential high-risk consignments, such as soils, growing media, and living organisms.

5. Consider the use of lists that specify which species may be imported and restrict the remainder, rather than lists that only identify those species whose import is prohibited or restricted, in the interests of preventing the unintended introduction of invasive alien species, and especially in the case of countries that are vulnerable to invasive alien species, such as small island developing States, island countries, and countries with islands. These considerations should be consistent with the guidance contained in decisions XII/16, paragraph 23,⁶⁴ and decision 14/11(a),⁶⁵ as well as other applicable international obligations and standards, including those recognized by the World Trade Organization Agreement on the General Agreement on Trade in Services (GATS) that are relevant for cross-border e-commerce, as well as in accordance with decisions XII/16, paragraphs 22 and 14/11, paragraph 11(a).

2. Indigenous peoples, local communities and relevant stakeholders' engagement

6. In accordance with decision XIII/13, paragraph 7, develop mechanisms, in collaboration with e-commerce stakeholders, for identification of e-commerce traders, their locations and other stakeholders with a view to facilitating inter-agency and multi-stakeholder participation and cooperation.

7. Engage with indigenous peoples and local communities, women and youth, as well as the wider community and general public for detection of early incursion, establishment or spread of invasive alien

⁶⁴ Encourages Parties and other Governments (a) to develop and share a list of regulated invasive alien species, based on the results of risk analysis, where appropriate. Decision 14/11, para. 11 (a).

⁶⁵ States should maintain lists of species with the assessed potential to become invasive and associated with unacceptable risks for biodiversity and make it available through the clearing-house mechanism or other appropriate means. Decision XII/16, para. 23.

species, including from e-commerce, across traditional lands and waters, as well as the wider community and general public.

8. Ensure, in accordance with decision 14/11, paragraph 10, compliance with the sanitary, phytosanitary and veterinary import requirements of importing countries among e-commerce customers and traders by providing quality information on the risks to the customer's country (legal, environmental and health related).

9. Strengthen coordination with postal and express courier services to ensure that relevant information on the risks and preventive measures are conveyed to e-commerce users in accordance with decision XII/16, paragraph 24, and taking into consideration decision 14/11, annex I, paragraphs 7, 9-11, 13 and 29.

10. Ensure, in collaboration with national and regional trade authorities, that import/export requirements are up-to-date, clear and accessible to e-commerce traders, indigenous peoples, local communities and relevant stakeholders.

11. Aim to inform both sellers and buyers about potentially invasive alien species, focusing on their legal responsibility. Both social media and specialized media, such as pet magazines/journals/books, especially journals from pet or plant association/society and multi-agency targeted publicity campaigns should be used to disseminate correct information, aiming to shift consumer values (e.g. towards native and non-invasive species) and to change behaviours (e.g. to prevent impulse purchase of invasive alien species) in accordance with decision XIII/13, paragraph 7(a).

12. Encourage, taking into consideration decision XIII/13, paragraph 7, e-commerce platforms and e-payment service providers, postal and express courier services to adhere to national regulations, international standards and guidance on invasive alien species in their operations, in consistency with other international obligations.

13. Consider implementing the Single Window⁶⁶ approach, which allows the sharing of standardized information and documents with a single-entry point to fulfil all import, export and transit-related regulatory requirements. Its implementation at the national and/or subnational level may facilitate reporting on regulated articles (including live alien organisms with phytosanitary and sanitary risks, and risks to biodiversity), taking into account decision XII/16, paragraph 6, decision XIII/13, paragraph 7(c) and decision 14/11, annex I, paragraph 33.

14. Establish legal and policy frameworks that allow for the advanced international electronic sharing and exchange of data between all actors involved in the international supply chain, as appropriate, and use these data to triage packages and determine the level of inspection needed (risk-based inspection).

3. *Monitoring and compliance*

15. Gather data, taking into consideration decision 14/11, annex I, paragraphs 34-36, and in compliance with national legislation and circumstances, using all available means and tools (e.g. crowdsourcing) to monitor compliance and to evaluate the efficacy of activities that are implemented to mitigate risks associated with e-commerce. The data collected should be used, together with other relevant information including compliance history, and relevant information from indigenous peoples and local communities with their free, prior and informed consent, to inform risk-based inspections and determine if investigation or enforcement action is needed. Data analytics should be applied to discern any abnormal trends and patterns, including potential invasive alien species incursion and impact risks.

16. Disseminate good practices and risk-based interventions using best practice methods of data analytics to facilitate legitimate e-commerce and, at the same time, identify and stop illicit trade. Wherever possible, prioritize the use of non-intrusive inspection (NII) technologies, and promote the adequacy of

⁶⁶ A single window is defined as a facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements (see <http://www.wcoomd.org/~media/wco/public/global/pdf/topics/facilitation/activities-and-programmes/tf-negotiations/wco-docs/info-sheets-on-tf-measures/single-window-concept.pdf>).

existing technologies e.g. scanners, sniffer dogs and other available tools for the detection of invasive alien species, and the further development of automated biosensors to improve efficient detection of prohibited and restricted articles moving through the express courier and postal systems.

17. Develop and implement training and tools to facilitate appropriate level of monitoring and inspection in e-commerce markets. This could include developing guidance on monitoring of e-commerce platforms and on the issuance of warnings, notices and other enforcement actions when non-compliances are found in e-commerce transactions, and the proper handling of restricted items seized in compliance with national and/or subnational law.

B. Suggested actions for web marketplaces (sale platforms) and e-payment service providers, postal and express courier services

18. Web marketplaces (sale platforms) and e-payment service providers, postal and express courier services are strongly encouraged to:

(a) Consider the information available from relevant international bodies, national and/or subnational authorities and other sources, regarding the risks (both legal and environmental) posed by invasive alien species and take steps accordingly to make their users aware of them, taking into account decision 14/11, annex I, paragraphs 11-13;

(b) Monitor e-commerce taking place within their platforms or jurisdiction and, consistent with relevant national and/or subnational legislation, alert relevant authorities where there is evidence of illegal or otherwise potentially damaging trade in invasive alien species taking place;

(c) Develop and apply improved management measures to minimize the risks of introduction of invasive alien species through e-commerce, consistent with international and national obligations.

C. Suggested actions for international bodies/agreements and cross-jurisdictional collaboration

19. International bodies/agreements, in collaboration with regional organizations and national authorities, as relevant, are strongly encouraged to undertake the following:

(a) Collaborate to share data, information, technology and expertise on e-commerce in potential invasive alien species;

(b) Draw on guidance from other international bodies, including the ongoing work by the World Customs Organization and in the Bern Convention;

(c) Continue to monitor e-commerce with potential invasive alien species at the global and regional levels with a view to identifying trends and risks in trade of invasive alien species;

(d) Prepare guidance to assist national border agencies in responding to non-compliance, considering that both domestic and international actions may be required to respond effectively;

(e) Improve collaboration between national border agencies in order to enhance opportunities to link existing security initiatives with invasive alien species risk management and targeted (risk-based) inspections. This will also provide a mechanism for timely information-sharing among national border agencies and other relevant ministries/departments on issues related to cross-border e-commerce trade;

(f) Conduct joint capacity-building activities with relevant organizations, Parties and other Governments and provide technical assistance and resources for implementing existing international guidelines and standards, and developing national and/or subnational regulatory frameworks or measures to address the risks associated with e-commerce for all relevant stakeholders including indigenous peoples and local communities;

(g) Expand the concept of “authorized economic operators”⁶⁷ (AEO); trusted trader to cross-border e-commerce and include invasive alien species risks in AEO criteria and requirements.

⁶⁷ See also WCO *Compendium of Authorized Economic Operator Programmes* (2019), <http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/instruments-and-tools/tools/safe-package/aeo-compendium.pdf?db=web>

Implementing AEO and trusted trader programmes in the e-commerce environment for postal operators, express carriers and e-platforms, which would result in a lower frequency of inspections;

(h) Establish frameworks that allow for the advanced electronic exchange of data between all parties involved in the international supply chain and use these data to triage packages and determine the level of inspection needed (risk-based inspection).

D. Suggested actions for relevant international expert organizations

20. Relevant international expert organizations are strongly encouraged to:

(a) Raise awareness among international, national organizations and e-commerce stakeholders about import/export requirements and what can be done to minimize the risk of introduction and spread of alien and potentially invasive species associated with e-commerce, taking into account decision XIII/13 paragraph 7(a);

(b) Building on such frameworks as EICAT,⁶⁸ establish an international invasive alien species risk-based labelling system, to be used for all species sold via e-commerce and provide guidance on the handling and care of organisms. On consignments of live alien species, such labelling should include information to enable identification of hazards for biodiversity and the identification of species or lower taxa (e.g., scientific name, taxonomic serial number or its equivalent), taking into account decisions XII/17 and 14/11 as well as the ongoing work of the Economic and Social Council's Sub-Committee of Experts on the Transport of Dangerous Goods.

Annex III

DRAFT METHODS, TOOLS AND STRATEGIES FOR THE MANAGEMENT OF INVASIVE ALIEN SPECIES AS IT RELATES TO PREVENTION OF POTENTIAL RISKS ARISING FROM CLIMATE CHANGE AND ASSOCIATED NATURAL DISASTERS AND LAND USE CHANGES

(PROVISIONAL ADVICE PURSUANT TO DECISION 14/11, ANNEX II, PARAGRAPH 1 (C))

1. The interactions of climate change, associated changes in land and marine ecosystems and biological invasions will have profound consequences for biodiversity. These interactions are considered and potential responses enumerated in CBD/AHTEG/IAS/2019/1/2.

2. Climate change is aiding increased rates of (and risk of spread of many alien species). Human adaptations to climate change will alter land-use and increase disturbances in the ecosystem that, in turn, facilitate the establishment of alien species.

3. Not all invasive alien species incursions are successful, nor will all invasive alien species benefit from climate change, as some may become less abundant under particular changing climates. Some invasive alien species will decline in importance while some currently low impact alien species may become significant invasive alien species.

4. Climate change may exacerbate existing problems and impacts of invasive alien species, with both direct and indirect impacts on biodiversity and socioeconomic values. Changing ocean currents will have huge impacts on species movements in marine environments as well as influence climatic conditions on land. Loss of permanent sea ice is opening up new sea transport routes and shipping in the Arctic is creating greater probability of invasive alien species introduction and establishment in the Arctic terrestrial and marine environments.

5. Climate change is associated with more frequent extreme weather events like cyclones and flooding. Extreme weather events cannot only transport invasive alien species to new areas, but also cause disturbances in habitats which enable invasive alien species to establish themselves and spread. Climate-

⁶⁸ IUCN *Environmental Impact Classification for Alien Taxa*, <https://ipbes.net/policy-support/tools-instruments/environmental-impact-classification-alien-taxa-eicat>

induced extreme weather events can also lead to sudden human population movements and displaced people can inadvertently transport invasive alien species.

6 Prevention and management of invasive alien species under climate change becomes an even greater challenge with climate change. New prioritization actions will be required.

7 For more information on tools that support management of invasive alien species in the face of climate change.⁶⁹

A. Prediction

8. Managing the impacts of invasive alien species on biodiversity and ecosystem services requires knowledge of the manner in which the actual and potential impact will vary as a result of climate change so that management priorities can be adapted accordingly.

9. States, organizations and relevant stakeholders, taking into account, among other things, decision 14/5, are strongly encouraged:

(a) To undertake horizon scanning to forecast/predict future changes in actual and potential risks and impacts of invasive alien species arising from climate change;

(b) To identify changes in invasive alien species pathway risks arising from climate change. Climatically similar regions posing the greatest current mutual risks today are likely to change in the future along with changes in vectors and pathways, including changes in trade and the movement of people between these regions;

(c) To prioritize invasive alien species on the basis of potential direct and indirect impacts in the context of climate change;

(d) To identify effects of climate change on new potential invasive alien species introductions or pathways of introductions and establishment into pristine and invaded communities;

(e) To determine and prioritize for action sites at the greatest risk from climate change and invasive alien species;

(f) To prioritize efforts to maintain ecosystem goods and services, as well as ecosystem structures and functions on sites at the greatest risk from climate change and invasive alien species;

(g) To apply climate models to understand the impacts of invasive alien species on biodiversity and ecosystem services arising from climate change, and to further develop models for use on a broad scale by developing countries;

(h) To develop better methods to integrate (i) climate change models, (ii) land-use scenarios and (iii) trends in trade with invasive alien species data analysis to improve prediction capability;

(i) To define scenarios to understand where invasive alien species may indirectly increase the impacts of climate change on biodiversity and ecosystem services by transforming ecosystems;

(j) To modify/fine-tune invasive alien species risk analysis, and identify potential alien invasive species⁷⁰ (including disease vectors) that remain only casual under current conditions without significant impact; and are likely to become established and/or invasive and have an increased impact due to rapid population growth as a result of climate change;

(k) To identify and study potential future invasive alien species that can establish and spread and have an increased impact as a result of climate change. This can be done by using such approaches as

⁶⁹ See the synthesis report of the Online Forum (CBD/IAS/AHTEG/2019/1/INF/1).

⁷⁰ Sleeper alien species: alien species whose population persistence is limited by the current climate and which are expected to exhibit greater rates of establishment as a result of climate change.

sentinel sites to monitor changes in abundance, spread and impacts of such species or by carrying out trait- and impact-based risk assessments;

(l) To identify invasive alien species that are likely to benefit under increased CO₂ levels, rising temperatures, increased frequency of extreme events, fire regimes of increased frequency and intensity, high salt-water incursions, changes in ocean currents and changes in precipitation patterns, and prioritize management to prevent their spread and impacts, including humane methods of eradication and control;

(m) To improve knowledge of the risks of invasive alien species adapting to new environmental conditions, including rapid evolution and hybridization;

(n) To identify impacts of invasive alien species arising from climate change on biodiversity and ecosystem services;

(o) To ensure the meaningful participation of indigenous peoples and local communities, use of their biocultural indicators, early identification and warning systems and traditional knowledge in the development of predictions of invasive alien species under climate change with their “free, prior and informed consent” or “free, prior informed consent” or “approval and involvement”, depending on national circumstances.

B. Planning and prevention

10. States are encouraged, in collaboration with experts, subnational government, indigenous peoples, local communities and relevant stakeholders:

(a) To develop climate change relevant risk analysis for prioritizing invasive alien species for management (e.g. fire enhancing weeds);

(b) To develop and implement management strategies to eradicate, contain or control high ranking potential alien species and introduced or established invasive alien species before they can respond to climate change. Those strategies should be object of an appropriate risk analysis, in order to avoid unnecessary biosafety concerns;

(c) To monitor the spread and impact of all established and potential alien species, particularly in sites or regions where biodiversity and ecosystem services are likely to deteriorate rapidly under climate change. Best-practice approaches using, for example, remote sensing or sensor networks are suggested to be undertaken;

(d) To minimize the potential of biological invasions or develop spatial response planning for areas in which communities are threatened with a high risk of extreme weather events (e.g. relocate zoos, botanical gardens, exotic aquaculture facilities from extreme-event-prone areas);

(e) To adapt current pathway management with a view to reducing changes in risks arising from climate, including predicted associated changes in trade and movement of people;

(f) To engage all sectors, including agriculture and public health agencies and industries, in invasive alien species planning activities where climate change risks are cross-sectoral;

(g) To raise public awareness of changing invasive alien species threats arising from climate change and include the participation of the public and all relevant sectors in response planning;

(h) To collect best practices of indigenous peoples and local communities on the monitoring, controlling and mitigation of the impacts of invasive alien species caused by climate change;

(i) To engage with regional and local specialists when considering prevention, planning and mitigation measures.

C. Management

11. It is suggested that States take the following actions:

- (a) Apply adaptive management approaches to future prioritized management actions in the context of climate change and share the information with other Parties to improve outcomes;
- (b) Take steps to increase the long-term functional resilience of threatened ecosystems and habitats to climate change, extreme weather events and natural disasters and associated invasive alien species incursions, particularly for islands and coastal systems, taking into account guidance in decision 14/5, paragraphs 3(h), 4(b) and its annex as well as decision X/33, paragraph 8(n);
- (c) Undertake focused management actions, including containment, eradication when possible or control of invasive alien species in areas that could act as non-native sources for spread into identified vulnerable areas and/or native communities;
- (d) Collate existing knowledge into international online databases to allow the interoperable collection and dissemination of data and knowledge on the effectiveness of actions to mitigate impacts of invasive alien species arising from climate change. An example of such a database is the Database of Island Invasive Species Eradications (DIISE);⁷¹
- (e) Develop and integrate invasive alien species management strategies into “threatened climate vulnerable species movement-assisted translocation actions” to avoid unintended consequences, taking into account decision X/33, paragraph 8(e);
- (f) Collect best practices of indigenous peoples and local communities on the monitoring, control and mitigation of the impacts of invasive alien species, diseases and shifting species distributions caused by climate change.

D. National and international cooperation

12. States and relevant international organizations are strongly urged to integrate pathway and invasive alien species risk based multi-criteria prioritization approaches into all levels of planning to obtain multiple benefits and shared outcomes, including the following:

- (a) National and international climate mitigation and adaptation strategies, environmental impact assessments, and response planning activities in accordance with decision X/33, paragraph 8(p);
- (b) Other relevant conventions (e.g. United Nations Framework Convention on Climate Change, Convention on the Conservation of Migratory Species of Wild Animals) and providing relevant United Nations implementing agencies with policy guidance;
- (c) National and international commitments and actions under the Sustainable Development Goals;
- (d) Market incentive programmes and other actions funded by multilateral agencies or forums, such as the Global Environment Facility, the Clean Development Mechanism and the Green Climate Fund.

13. It is suggested that relevant international organizations organize training for governmental and non-governmental development assistance agencies and operatives engaged in disaster relief, identify risks of introducing and spread of invasive alien species with their activities and undertake rapid response with appropriate measures, such as quarantine of equipment and goods, emergency response, eradication, containment and control.

⁷¹ <http://diise.islandconservation.org>.

*Annex IV***DRAFT RISK ANALYSIS ON THE POTENTIAL CONSEQUENCES OF THE INTRODUCTION OF INVASIVE ALIEN SPECIES ON SOCIAL, ECONOMIC AND CULTURAL VALUES
(PROVISIONAL ADVICE PURSUANT TO DECISION 14/11, ANNEX II, PARAGRAPH 1 (D))**

1. It is suggested that guidelines be developed in order to more explicitly include social and cultural values when assessing the costs, benefits and prioritization of management. This could build on existing processes (for example, Socioeconomic Impact Classification of Alien Taxa (SEICAT)) and international best practices on engagement of indigenous peoples, local communities and relevant stakeholders in decision-making. New Zealand incorporates cultural knowledge, values and perspectives (mātauranga) in the management of invasive alien species. Māori are involved in the governance of invasive alien species management, especially when culturally and spiritually significant (taonga) species are at risk. This system is worthy of emulation. States should seek formal participation and ensure bidirectional data streams between data holders and generators through the national data portals (where applicable) to the global-level aggregators. Country membership status, capacity, resources and other aspects should be understood by all Parties. Open access to data and seamless integration of this data between data tools used by indigenous peoples, local communities and relevant stakeholders is an imperative for better management and monitoring of this threat. This will (a) increase data flows necessary for analysis at the level of the Convention on Biological Diversity and international decision-making and (b) open opportunities for national capacity-building and resourcing.
2. It is suggested that efforts be made to increase qualitative and quantitative knowledge and data on socioeconomic and cultural impacts of invasive alien species on communities and society, including indigenous peoples and local communities, and methods to use this knowledge when prioritizing invasive alien species for impact and management feasibility and likelihood of success. It will be important to define socioeconomic, cultural and community well-being criteria in order to collectively evaluate such impacts, for example how the impacts of invasive alien species on treasured, sacred, culturally and spiritually significant native species can be measured, and impact thresholds understood and addressed.
3. Enhanced risk communication is essential to facilitate dialogue and understanding between and among indigenous peoples, local communities and relevant stakeholders, who may include the general public and indigenous peoples and local communities. Risk communication seeks to reconcile the views of all interested parties in order to achieve a common understanding of the risks posed by invasive alien species, develop credible risk management options and consistent regulations, and promote awareness of issues concerning invasive alien species.
4. There is a lack of well-documented semi-quantitative criteria for socioeconomic, cultural and community well-being on which not only to evaluate impacts, but also to evaluate the effectiveness of the applied risk management option.
5. Social impact assessment offers a structured process for identifying, evaluating and addressing social costs and benefits. It has potential value for enabling public participation in planning and as a key component of integrated assessments of management options.

*Annex V***DRAFT USE OF EXISTING DATABASES ON INVASIVE ALIEN SPECIES AND THEIR IMPACTS, TO SUPPORT RISK COMMUNICATION
(PROVISIONAL ADVICE PURSUANT TO DECISION 14/11, ANNEX II, PARAGRAPH 1 (E))**

1. This advice is aimed at assisting Parties, other Governments and organizations in developing and maintaining efficient, timely and up-to-date data and information for management of invasive alien species.
2. Enhanced risk communication is essential to facilitate dialogue and understanding between and among indigenous peoples, local communities and relevant stakeholders. Risk communication seeks to

reconcile the views of all interested Parties in order to achieve a common understanding of the risks posed by invasive alien species, develop credible risk management options and consistent regulations, and promote awareness of issues concerning invasive alien species.

3. It is essential that regularly updated and curated data is maintained on invasive alien species distribution, impact and management action and relevant knowledge. Relevant publicly available data should be shared with the key global data aggregators to support processes under the Convention on Biological Diversity and other international and regional agreements.

4. It is essential that Parties, other Governments and organizations engage with key global aggregators and data providers (e.g. Global Biodiversity Information Facility (GBIF), Global Registry of Introduced and Invasive Species (GRIIS)) and ensure bidirectional data streams between data holders and generators through the national data portals (where applicable) to the global-level aggregators. Open access to data, seamless integration of this data between data tools and availability of the data to indigenous peoples, local communities and relevant stakeholders are imperative for better management and monitoring of invasive alien species. National or central coordination of data streams is essential for timely, comprehensive and fair availability of the occurrence data on invasive alien species from multiple sources. This will (a) increase data flows necessary for global and regional analysis and decision-making and (b) open opportunities for national capacity-building and resourcing.

5. It is important to facilitate data sharing and, where appropriate, use common international data standards, standard terminology in national, regional, local and thematic databases, even if languages differ between data portals.

6. It is also important to obtain free, prior and informed consent from indigenous peoples and local communities when using their traditional knowledge.

7. Real-time data sharing is recommended to allow access to up-to-date information to enable early detection and rapid response.

8. There is a great need for States, organizations and the scientific community to identify gaps in knowledge and information on alien species in existing databases and strive to improve knowledge and data, especially for organism groups on which knowledge is especially poor, such as alien marine species, invertebrates, microorganisms and fungi. Increased interaction between data generators, data providers and experts may provide improvements in the quality of data. Collaboration between experts in collating existing databases using existing standards could also contribute to filling these information gaps. Errors in current databases should be identified and corrected in existing databases.

9. Existing global invasive alien species data providers, such as the IUCN-Invasive Species Specialist Group (IUCN-ISSG), the Global Biodiversity Information Facility (GBIF) and CABI, could be invited to provide a global platform for sharing information, experiences and analysis of the results of management activities for invasive alien species, best practices in policy and regulatory mechanisms and codes of conduct to address activities that lead to the introduction and spread of alien and invasive species, aquariums and local productive activities.

10. IUCN-ISSG and partners could be invited to index, collate and archive the development of policy response indicators within the Biodiversity Indicators Framework (BIP) and Sustainable Development Goal indicator 15.8.1.

11. States, organizations and experts are invited to continue supporting the ongoing development of the Global Registry of Introduced and Invasive Species (GRIIS) and other expert networks focused on collation and curation of new and existing data.

12. GBIF could be invited to include distribution data on invasive alien species in their global biodiversity databases.

13. States, sectoral authorities, international, regional and local organizations and relevant stakeholders could be invited to contribute to and use the CABI Invasive Species Compendium, which is an encyclopedic resource of scientific information on invasive alien species to help inform decision-making.

14. States, sectoral authorities, international, regional and local organizations, experts and relevant stakeholders are invited to use and further develop, as needed, impact assessment frameworks (e.g. EICAT and SEICAT) to develop science-based policies and prioritization of invasive alien species management actions.⁷²

Annex VI

DRAFT ADDITIONAL ADVICE AND TECHNICAL GUIDANCE ON INVASIVE ALIEN SPECIES MANAGEMENT

A. Advice on the use of sanitary and phytosanitary measures

1. The application of sanitary and phytosanitary (SPS) measures to regulate import/export of alien organisms at the national level requires close collaboration between national authorities and other relevant ministries and departments. Some countries closely coordinate their activities on import requirements for alien organisms among relevant ministries and agencies, including national plant protection organizations and the veterinary authorities (e.g., coordination in Australia between the Department of Agriculture and the Department of Environment and Energy).

2. Environmental authorities, national plant protection organizations and veterinary authorities should be advised to establish strong partnerships with national, regional and local governments in connection with mandates for alien species management. This will help prevent the introduction of invasive alien species and support early detection, rapid response and effective management. Such partnerships could include collaboration in setting national and regional priorities, completing risk assessments, carrying out surveillance, developing response plans, sharing information and exchanging expertise.

3. A large number of the international standards that are recognized by the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) are relevant for protecting biodiversity. These SPS measures should be applied more widely, not only in the context of agriculture, but also to protect the health of wild fauna and flora.

4. A number of guides, manuals and training materials have been developed under the International Plant Protection Convention (IPPC) to build capacity and support the implementation of international standards. These materials should be used to raise awareness and build capacity among partner organizations to address the issue of invasive alien species.

5. There is a need for capacity-building among developing countries, for implementing existing IPPC and the World Organisation for Animal Health (OIE) international guidelines and standards and for developing national regulatory frameworks to address the risks associated with invasive alien species.

6. Regional cooperation and partnerships should be further developed to support the achievement of Aichi Biodiversity Target 9 and beyond, through regular coordination and communication, identification of common priorities and alignment of efforts on a regional basis. This could be supported through IPPC by using the model of regional plant protection organizations to foster cooperation on invasive alien species.

7. A key gap that needs additional attention and guidance is pathogens affecting wildlife and invasive alien species that may be a vector or host of pathogens or parasites and other organisms that do not meet the IPPC definition of quarantine pests, the pathogens causing diseases listed under OIE and other organisms (e.g. invasive ants) that are not covered by IPPC or OIE.

8. As countries adopt different approaches in regulating invasive alien species (e.g., lists of restricted, prohibited and permitted species or hybrids), guidelines could be developed on how such approaches can be implemented in compliance with the SPS Agreement, with a view to facilitating the development of better regulation and ensure transparency.

⁷² For more information on using these tools, see CBD/AHTEG/IAS/2019/1/2, pp 31-35.

B. Advice on management-specific pathways

1. Inter-basin water transfer and navigational canals

9. The ratification and application of relevant international maritime agreements (e.g. the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention), mentioned in paragraph 25 of decision VIII/27, and the Guidelines for the control and management of biofouling mentioned in paragraphs 29 and 30 of decision VIII/27) should be promoted in order to diminish the spread of invasive alien species through new shipping routes opening up as a result of climate change.

10. Regional cooperation among States should be enhanced on planning, monitoring and data exchange on invasive alien species specifically related to inter-basin water channels to establish early warning and rapid response systems as well as researching and employing methodologies to reduce new invasions through these channels.

11. Measures to prevent the introduction and spread of invasive alien species in the procedures for planning, development and management of the inland waterway infrastructure should be promoted, as appropriate. Relevant organizations, indigenous peoples and local communities, women and youth and other stakeholders, including local fishers and other groups that are dependent on the waterways (e.g., boaters, recreational boat users, outfitters), should be consulted and engaged when planning and designing such measures.

2. International aid programmes

12. Developing countries need capacity-building, resource mobilization and information sharing for assessing and managing the invasive alien species risks associated with international aid programmes.

13. Aid agencies should ensure that any initiatives/projects/programmes/agreements avoid the introduction of invasive alien species into the area.

Emergency relief, aid and response

14. Environmental authorities should consult the relevant enforcement agencies to comply with the SPS Agreement or the country's quarantine regulation to prevent risk of biological invasions associated with emergency relief, aid and response.

15. Documenting any case of invasive alien species in aid-recipient countries should be initiated across broad sectors.

16. The risk of invasive alien species should be incorporated into emergency response strategies.

17. The responsibilities of aid-providers and aid-recipients should be identified to avoid any invasive alien species introduction through contaminants in aid transports and transfers.

3. Air transport

18. Relevant organizations should engage indigenous peoples, local communities and relevant stakeholders at all levels to develop standards to prevent hitchhiker or stowaway species arriving by air.

19. Relevant organizations, including IPPC, OIE, ICAO, WCO and IATA, should collaborate to develop harmonized operating standards related to air cargo, with input from indigenous peoples, local communities and relevant stakeholders.

20. States should avoid the introduction and spread of invasive alien species through the transport of living organisms, in accordance with the guidance annexed to decisions XII/16 and 14/11.

4. Tourism

21. Parties, in collaboration with travel operators and non-governmental organizations, should develop awareness programmes and campaigns to educate tourists, tourism agencies, local communities and policymakers on the risk and management of invasive alien species, and strategies and techniques to minimize risks.

22. Minimizing the impact of touristic activity to prevent the introduction and spread of invasive alien species should be prioritized, taking into account vulnerable ecosystems, such as in protected areas, and island ecosystems.

23. The Secretariat should collaborate with the World Tourism Organization to consider joint efforts in addressing tourism as a major possibility for introducing invasive alien species and the management thereof.

5. *Sea containers and cargos*

24. Parties and other Governments should be aware that sea containers may carry invasive alien species with any cargoes, including industrial products, not only cargoes containing living organisms.

25. Relevant organizations should engage indigenous peoples, local communities and relevant stakeholders at all levels to develop guidelines to prevent invasions of hitchhiker or stowaway species through sea containers.

26. Relevant organizations, including IPPC, OIE, IMO and WCO, should further collaborate to develop harmonized operational standards to address the pathways of biological invasion (contaminants and stowaway) via sea containers, in close cooperation with the relevant business sector and input from indigenous peoples, local communities and relevant stakeholders, taking into account the appropriate treatment of sea containers prior to loading cargos.

27. The introduction and spread of invasive alien species through the transport of sea containers should be avoided, in accordance with the guidance annexed to decision XIII/13 and take appropriate actions to prevent the unintentional spread of invasive alien species via sea containers, taking into account paragraphs 10, 34, 35 and 36 of the guidance annexed to decision 14/11 and other relevant international guidance, for example, the IPPC Guidance from the International Plant Protection Convention's Sea Container Task Force.⁷³

28. Trade partners involved in operation of sea containers should act proactively to prevent unintentional introduction and spread of invasive alien species.

C. **Advice on capacity-building activities**

29. The capacity-building programme under the Convention, should include capacity-building in invasive alien species management.

30. Training programmes at the international, national, subnational or local level should be established by inviting broad sectors, especially academics and scientific expert organizations and other relevant organizations, including indigenous peoples and local communities and women and youth.

31. The evaluation of existing capacity and the development of training packages for relevant topics, such as taxonomy, ecology, invasion biology, risk analysis – in particular horizon scanning – biological control, management of priority species and pathways should be considered within the long-term strategic framework for capacity-building.

32. There is a need to develop technical resources, including technical manuals for broad sectors, as follows:

(a) Taxonomic identification of organisms, including identification keys based on morphology, and the link to databases with images and to lists of specialists, DNA barcoding, artificial-intelligence-aided identification and citizen science;

(b) How to apply sanitary and phytosanitary measures to prevent spread of invasive alien species;

(c) How to publish and use data on invasive alien species using international data standards to ensure cross-linking national, subnational and regional and global thematic databases;

⁷³ Reducing the spread of invasive pests by sea containers (<http://www.fao.org/3/ca7670en/CA7670EN.pdf>)

- (d) Best practices published on successful eradications, and other useful information resources on technical advice on websites;
- (e) How to use shared information on invasive alien species for national and subnational policy-setting and implementation;
- (f) How to apply classical biological control agents against invasive alien species and under what circumstances;
- (g) How to apply an ecosystem-based approach to control invasive alien species;
- (h) Multi-criteria decision support manual for policymakers;
- (i) If needed, a model regulatory act on invasive alien species with shared responsibility among broad sectors;
- (j) Management manuals for broad sectors to communicate on invasive alien species among different stakeholders, including indigenous peoples and local communities and women and youth.

24/9. Conservation and sustainable use of marine and coastal biodiversity*The Subsidiary Body on Scientific, Technical and Technological Advice*

1. *Takes note* of the outcomes of the unresolved discussions during its twenty-fourth meeting under agenda item 6 on the conservation and sustainable use of marine and coastal biodiversity, contained in the annex to the present recommendation, and the proposals submitted by Parties and observers on this issue, which were provided at the invitation of the Chair, contained in document (CBD/SBSTTA/24/INF/42), which are to be taken as the basis for further negotiations on this issue by the Conference of the Parties at its fifteenth meeting;

2. *Notes* that work reflected in the annex to the present document was not completed due to the extraordinary circumstances resulting from the limitations on in-person meetings caused by the COVID-19 pandemic, the need to urgently negotiate the post-2020 global biodiversity framework and the need to take into account the availability of delegates who participated in the fourth session of the intergovernmental conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction;⁷⁴

3. *Also notes* that the practice described in paragraph 1 will not set a precedent for the future and that sufficient time will be allocated in the future to allow thorough, fair, just and equitable deliberations by the Subsidiary Body on Scientific, Technical and Technological Advice;

4. *Requests* the Executive Secretary, in advance of the fifteenth meeting of the Conference of the Parties, and subject to the availability of financial resources, to facilitate consultations, both in person and online, among Parties, other Governments and relevant stakeholders, including indigenous peoples and local communities, women and youth, with a view to advancing discussions on the conservation and sustainable use of marine and coastal biodiversity;

5. *Recognizes* that the outcomes of these consultations will help to form the basis for focused deliberations on this issue at the fifteenth meeting of the Conference of the Parties and requests that dedicated time be given to this issue in the organization of work for the fifteenth meeting of the Conference of the Parties;

6. *Transmits* the work facilitated by the Secretariat, referred to in paragraph 4 above, to the Conference of the Parties to the Convention on Biological Diversity for consideration at its fifteenth meeting with a view to adopting a decision on this matter.

*Annex***OUTCOMES OF THE DELIBERATIONS OF THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE, AT ITS TWENTY-FOURTH MEETING, ON THE CONSERVATION AND SUSTAINABLE USE OF MARINE AND COASTAL BIODIVERSITY UNDER AGENDA ITEM 6⁷⁵**

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

The Conference of the Parties,

Recalling its decisions IX/20, X/29, XI/18, XII/23, XIII/9, XIII/11, XIII/12 and 14/30 with respect to cooperation and collaboration with relevant global and regional organizations and initiatives,

Recognizing the need to strengthen collaboration and cooperation with [other] [the] competent intergovernmental organizations with a mandate [to protect and conserve marine biodiversity at the regional

⁷⁴ Held from 7 to 18 March 2022

⁷⁵ This annex reflects the outcomes of the deliberations of the Subsidiary Body on Conference Room Paper 2 (“Conservation and Sustainable Use of Marine and Coastal Biodiversity”) on 23 March 2022.

level] in areas beyond national jurisdiction in support of the application of the ecosystem approach and the conservation and sustainable use of marine biodiversity[, within the jurisdictional scope of the Convention and its Protocols],

[Also recognizing the need to strengthen collaboration and cooperation with other competent intergovernmental organizations in support of the conservation and sustainable use of marine biodiversity, including of areas beyond national jurisdiction, applying the ecosystem approach and the precautionary principle and using the best available science,]

[Acknowledging the importance of science for decision-making and welcoming the work under initiatives such as the United Nations Decade of Ocean Science for Sustainable Development and the United Nations Decade for Ecosystem Restoration,]

Recognizing the importance of marine and coastal biodiversity as [a cross-cutting element] [one of the key elements] of the post-2020 global biodiversity framework and critical to achieving the 2050 Vision for Biodiversity,

1. *[Takes note of][Welcomes] the report of the Thematic Workshop on Marine and Coastal Biodiversity for the Post-2020 Global Biodiversity Framework,⁷⁶ and requests the Executive Secretary to conduct a strategic review and analysis of the programme of work on marine and coastal biodiversity [in the context of][to inform] the implementation of the post-2020 global biodiversity framework, and to prepare a draft update to the programme of work on the basis of this analysis, also considering the outcomes of the above-referenced workshop, as appropriate, for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice [prior to the sixteenth meeting of] the Conference of the Parties;*

[1.alt [Takes note of][Welcomes] the report of the Thematic Workshop on Marine and Coastal Biodiversity for the Post-2020 Global Biodiversity Framework,⁷⁷ and requests the Executive Secretary to compile submissions from Parties, other Governments and relevant stakeholders to be considered as potential elements of a strategic review and analysis of the programme of work on marine and coastal biodiversity within national jurisdiction in the context of the implementation of the post-2020 global biodiversity framework, and to prepare a compilation of views based on the aforementioned submissions to support the preparation of an draft update to the programme of work by Subsidiary Body on Scientific, Technical and Technological Advice, taking into account, where appropriate, the outcomes of the above-referenced workshop, as appropriate, for consideration by the Conference of the Parties at its sixteenth meeting;]

2. *Requests the Executive Secretary to develop a strategic review and analysis of the programme of work on island biodiversity in the context of the implementation of the post-2020 global biodiversity framework, in collaboration with the Global Islands Partnership and building on other relevant efforts to review progress towards global commitments and goals for island biodiversity, and to prepare a draft update to the programme of work on the basis of this analysis for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties;*

[2.alt Requests the Executive Secretary to compile submissions from Parties, other Governments and relevant stakeholders to be considered as potential elements of a strategic review and analysis of the programme of work on island biodiversity in the context of the implementation of the post-2020 global biodiversity framework, in collaboration with the Global Islands Partnership and building on other relevant efforts to review progress towards global commitments and goals for island biodiversity, and to prepare a compilation of views based on the aforementioned submissions to support the preparation of a draft update to the programme of work by the Subsidiary Body on Scientific, Technical and Technological Advice, for consideration of the Conference of the Parties at its sixteenth meeting;]

3. *Urges Parties and invites other Governments to take [action to conserve and sustainably use][into account the importance of] marine and coastal biodiversity [in efforts to implement][in the*

⁷⁶ CBD/POST2020/WS/2019/10/2.

⁷⁷ CBD/POST2020/WS/2019/10/2.

implementation of] the post-2020 global biodiversity framework, including through enhancing the conservation, protection, restoration and sustainable use of marine and coastal ecosystems, [particularly the most vulnerable marine ecosystems in accordance with the need to effectively protect at least 30 per cent of the global oceans,] addressing threats and pressures, such as marine plastic litter and [illegal, unreported and unregulated][unsustainable] fishing, and conserving and sustainably using marine genetic resources as well as supporting appropriate access to marine genetic resources and the fair and equitable sharing of the benefits arising out of their utilization, within the jurisdictional scope of the Convention and its protocols[, and recognizing the role of indigenous peoples and local communities in conserving and sustainably managing marine and coastal biodiversity];

4. *Invites* relevant global and regional organizations, including the United Nations Framework Convention on Climate Change, the International Maritime Organization, the International Seabed Authority, the Food and Agriculture Organization of the United Nations, regional fishery bodies, and regional seas conventions and action plans, to support the implementation of the post-2020 global biodiversity framework with respect to marine and coastal biodiversity, and to contribute to monitoring and reporting with respect to the implementation of the framework;

5. *Welcomes* the work of the Executive Secretary on the compilation and synthesis of information on:

(a) Impacts of anthropogenic underwater noise on marine and coastal biodiversity and means to minimize and mitigate these impacts;

(b) Impacts of marine debris on marine and coastal biodiversity and habitats and means to minimize and mitigate these impacts;

(c) Experiences with the application of marine spatial planning;

(d) Efforts to implement the Priority Actions to Achieve Aichi Biodiversity Target 10 for Coral Reefs and Closely Associated Ecosystems;

(e) Efforts to implement the Voluntary Specific Workplan on Biodiversity in Cold-water Areas within the Jurisdictional Scope of the Convention;

6. *Encourages* Parties and invites other Governments and relevant organizations to use the information referred to in paragraph 5 above in their efforts to conserve and sustainably use marine and coastal biodiversity, according to national priorities and circumstances, and requests the Executive Secretary to facilitate the compilation, synthesis and sharing of information on efforts to implement the post-2020 global biodiversity framework with respect to various thematic issues related to marine and coastal biodiversity, in line with decisions of the Conference of the Parties;

7. *Also encourages* Parties and invites other Governments to support the development of a global agreement to reduce marine plastic litter under the auspices of the United Nations Environment Assembly;

8. *Requests* the Executive Secretary to support the implementation of marine spatial planning, including through capacity-building and partnership activities under the Sustainable Ocean Initiative, in collaboration with Parties, other Governments and relevant organizations;

9. *Encourages* Parties and invites other Governments to minimize and mitigate the impacts of deep-sea mining on marine and coastal biodiversity as well as its impacts on other uses of the marine environment;

10. *Welcomes* the cooperation between the Food and Agriculture Organization of the United Nations, the International Union for Conservation of Nature and the Executive Secretary to support efforts to mainstream the conservation and sustainable use of biodiversity in fisheries, and requests the Executive Secretary to continue this cooperation in an open and transparent manner and building on the results of the Expert Meeting on Other Effective Area-Based Conservation Measures in the Marine Capture Fishery

Sector, including for the development of voluntary guidance on identifying and applying other effective area-based conservation measures in fisheries;

11. *Also welcomes* the capacity-building and partnership activities being facilitated by the Executive Secretary, including through the Sustainable Ocean Initiative, at the national, regional and global levels in collaboration with Parties, other Governments and relevant organizations, expresses its gratitude to donor countries and many other partners for providing financial and technical support for the implementation of activities under the Sustainable Ocean Initiative, and requests the Executive Secretary to continue to facilitate capacity-building activities under the Sustainable Ocean Initiative in order to facilitate implementation of the post-2020 global biodiversity framework with respect to marine, coastal and island biodiversity;

12. *Further welcomes* the collaborative efforts among the Secretariat, the United Nations Environment Programme, the Food and Agriculture Organization of the United Nations, the International Maritime Organization, the International Seabed Authority, the regional seas conventions and action plans, regional fishery bodies, large marine ecosystem projects/programmes and other relevant regional initiatives to strengthen cross-sectoral cooperation at the regional scale in order to accelerate progress to achieve the Aichi Biodiversity Targets and the Sustainable Development Goals, including through the Sustainable Ocean Initiative Global Dialogue with Regional Seas Organizations and Regional Fishery Bodies, and requests the Executive Secretary to continue this collaboration in the context of the implementation of the post-2020 global biodiversity framework;

13. *Requests* the Executive Secretary to enhance cooperation and synergies with other global and regional organizations in support of the implementation of the 2030 Agenda for Sustainable Development⁷⁸ and the achievement of the Sustainable Development Goals;

14. *Also requests* the Executive Secretary to build synergies with other relevant global and regional organizations to support the implementation of an international legally binding instrument under the United Nations Convention on the Law of the Sea⁷⁹ on the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction, upon its adoption;

15. *Further requests* the Executive Secretary to enhance cooperation and synergies with global and regional organizations, in particular the United Nations Framework Convention on Climate Change,⁸⁰ with respect to matters related to marine and coastal biodiversity and climate change.

⁷⁸ General Assembly resolution 70/1.

⁷⁹ United Nations, *Treaty Series*, vol. 1833, No. 31363.

⁸⁰ *Ibid.*, vol. 1771, No. I-30822.

24/10. Ecologically or biologically significant marine areas

The Subsidiary Body on Scientific, Technical and Technological Advice

1. *Takes note* of the outcomes of the unresolved discussions during its twenty-fourth meeting, under agenda item 6 on ecologically or biologically significant marine areas, contained in the annex to the present recommendation and the proposals submitted by Parties and observers on the matter, which were provided at the invitation of the Chair, contained in document (CBD/SBSTTA/24/INF/41), which are to be taken as the basis for further negotiations on this issue by the Conference of the Parties at its fifteenth meeting;

2. *Notes* that work reflected in the annex to the present document was not completed due to the extraordinary circumstances resulting from the limitations on in-person meetings caused by the COVID-19 pandemic, the need to urgently negotiate the post-2020 global biodiversity framework and the need to take into account the availability of delegates who participated in the fourth session of the intergovernmental conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction;⁸¹

3. *Also notes* that the practice described in paragraph 1 above will not set a precedent for the future, and that sufficient time will be allocated in future to allow thorough, fair, just and equitable deliberations on this matter by the Subsidiary Body on Scientific, Technical and Technological Advice;

4. *Requests* the Executive Secretary, in advance of the fifteenth meeting of the Conference of the Parties, and subject to the availability of financial resources, to facilitate consultations, both in person and online, among Parties, other Governments and relevant stakeholders, including indigenous peoples and local communities, women and youth, with a view to advancing discussions on ecologically or biologically significant marine areas;

5. *Recognizes* that the outcomes of these consultations will help to form the basis for focused deliberations on this issue at the fifteenth meeting of the Conference of the Parties, and requests that dedicated time be given to this issue in the organization of work for the fifteenth meeting of the Conference of the Parties.

6. *Transmits* the work facilitated by the Secretariat, referred to in paragraph 4 above, to the Conference of the Parties to the Convention on Biological Diversity for consideration at its fifteenth meeting with a view to adopting a decision on this matter.

*Annex to the recommendation**

OUTCOMES OF THE DELIBERATIONS OF THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE, AT ITS TWENTY-FOURTH MEETING, ON ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS UNDER AGENDA ITEM 6

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

The Conference of the Parties,

Reaffirming Article 22 of the Convention as well as decisions X/29, XI/17, XII/22, XIII/12 (in particular paragraph 3) and 14/9 of the Conference of the Parties on ecologically or biologically significant marine areas,

⁸¹ Held from 7 to 18 March 2022

* This reflects the results of the deliberations of the Subsidiary Body, which was only able to address annexes I – VI to the draft decision.

Recalling United Nations General Assembly resolution 75/239 on oceans and the law of the sea and its preambular paragraphs on the United Nations Convention on the Law of the Sea,⁸²

Reiterating the important role of the General Assembly of the United Nations in addressing issues relating to the conservation and sustainable use of biodiversity in marine areas beyond national jurisdiction,

Noting the negotiations under way in the intergovernmental conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, following United Nations General Assembly resolution 72/249,

1. *Expresses its appreciation* to the Governments of Belgium and Germany for supporting the organization of the Expert Workshop to Identify Options for Modifying the Description of Ecologically or Biologically Significant Marine Areas and Describing New Areas, and welcomes the report of the workshop;⁸³

2. *Endorses* the annexes to the present decision addressing modalities for modifying descriptions of ecologically or biologically significant marine areas (EBSAs) and for describing new areas, encourages Parties and invites other Governments to implement these modalities, while fully respecting the sovereignty, sovereign rights and jurisdiction of States and requests the Executive Secretary to facilitate the implementation of these modalities;^{84,85}

3. *Decides* to extend the term of the Informal Advisory Group on Ecologically or Biologically Significant Marine Areas, and also decides to include in the terms of reference of the Informal Advisory Group the tasks and responsibilities of a “relevant expert advisory body” in the context of modalities for modifying the descriptions of ecologically or biologically significant marine areas and describing of new areas, as outlined in the annexes to the present decision;⁸⁶

4. *Requests* the Executive Secretary to develop voluntary guidelines on peer-review processes for the identification of areas meeting the criteria for ecologically or biologically significant marine areas and other relevant compatible and complementary scientific criteria, for the consideration of the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties;

5. *Encourages* Parties to take into consideration the scientific aspects of the EBSA process in the deliberations of the Intergovernmental Conference on an International Legally Binding Instrument under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction.

⁸² Parties to the Convention on Biological Diversity which are not a Party to the United Nations Convention on the Law of the Sea, 1982 reaffirm that the United Nations Convention on the Law of the Sea is not the only legal instrument governing all of the activities carried out in the oceans and seas. Their participation in this conference does not affect their status or rights, nor can it be interpreted as their tacit or express acceptance of the provisions of the United Nations Convention on the Law of the Sea.

⁸³ CBD/EBSA/WS/2020/1/2.

⁸⁴ No action or activity taken on the basis of this document shall be interpreted or considered as prejudicing the position of State Parties on a land or maritime sovereignty dispute or a dispute concerning the delimitation of maritime areas. The description of marine areas meeting the criteria for ecologically or biologically significant marine areas does not imply the expression of any opinion whatsoever concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Nor does it have economic or legal implications; it is strictly a scientific and technical exercise.

⁸⁵ [Nothing in this document can be interpreted as prejudicing developments under the United Nations Convention on the Law of the Sea.]

⁸⁶ The terms of reference for the “relevant expert advisory body” will be considered for adoption by the Conference of the Parties at its fifteenth meeting on the basis of a draft prepared by the Executive Secretary, taking into account annex III of decisions XIII/12 and 14/9 on the terms of reference of the Informal Advisory Group on Ecologically or Biologically Significant Marine Areas, in the context of modalities for modifying descriptions of ecologically or biologically significant marine areas and describing new areas, as outlined in the annexes to this recommendation.

Annex I

**GENERAL CONSIDERATIONS IN THE MODIFICATION OF DESCRIPTIONS OF
ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS AND THE
DESCRIPTION OF NEW AREAS**

1. Those who develop and submit proposals for the modification of EBSA descriptions and the description of new EBSAs are encouraged to consider:

(a) Collaboration with relevant organizations, experts and knowledge holders, including indigenous peoples and local communities, as holders of traditional knowledge, with their prior and informed consent or free, prior and informed consent or approval and involvement, in accordance with national circumstances and legislation and international obligations;

(b) A strong scientific basis as well as the importance of transparency;

(c) Regional dimensions of marine and coastal ecosystems and their ecological and biological features and processes, including regional differences in data availability, as well as collaboration across regions.

[2. Any existing or proposed EBSA causing concerns of States on a land or maritime sovereignty dispute or a dispute concerning the delimitation of marine areas shall be modified.]

[2. *alt* [The description of marine areas meeting the criteria for ecologically or biologically significant marine areas does not imply the expression of any opinion whatsoever concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, nor does it have economic or legal implications. It is strictly a scientific and technical exercise.] No action or activity taken on the basis of this document shall be interpreted or considered as prejudicing the position of States Parties on a land or maritime sovereignty dispute or a dispute concerning the delimitation of maritime areas.]

3. Any and all action taken on the basis of this document shall be considered strictly a scientific and technical exercise and shall not have any socioeconomic implications.

Annex II

**REPOSITORY AND INFORMATION-SHARING MECHANISM FOR ECOLOGICALLY OR
BIOLOGICALLY SIGNIFICANT MARINE AREAS**

1. The EBSA repository is to contain:

(a) Descriptions of areas meeting the EBSA criteria that were considered and endorsed by the Conference of the Parties, and which the Conference of the Parties requested the Executive Secretary to include in the repository and transmit to the United Nations General Assembly [for information] and its relevant processes as well as to relevant international organizations.

2. The EBSA information-sharing mechanism is to contain:

(a) Links to national processes and information pertaining to areas meeting the EBSA criteria and other relevant compatible and complementary nationally agreed scientific criteria within national jurisdiction that were provided as information for the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties;

(b) Reports of the CBD regional workshops to facilitate the description of EBSAs;

(c) Guidance related to the application of the EBSA criteria and the use of EBSA information;

(d) Other relevant scientific and technical information and other forms of knowledge, [including the indigenous and local knowledge of indigenous peoples and local communities with their prior and informed consent, free, prior and informed consent or approval and involvement, where appropriate,] related to areas described as meeting the EBSA criteria;

- (e) Information and experience relating to the application of other relevant and complementary intergovernmentally agreed scientific criteria;
- (f) Previous versions of EBSA descriptions that were in the repository, in cases where the descriptions have been modified [by a decision of the Conference of the Parties], including information on the modality by which the EBSA description was initially included in the repository.

Annex III

REASONS FOR MODIFICATION OF DESCRIPTIONS OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS

1. Reasons for the modification of an EBSA description (which can entail a modification to the textual description of the EBSA, [including its name,] a modification to the ranking of the area against the EBSA criteria and/or a change in the location, shape and/or size of the EBSA) are:
- (a) Newly available/accessible knowledge, including scientific and traditional knowledge, on features associated with an EBSA;
 - (b) Change in the information that appears in the current description of an EBSA;
 - (c) Change in the ecological or biological feature(s) of an EBSA;
 - (d) Scientific error(s) identified in an EBSA description;
 - (e) Modification(s) to the EBSA criteria, to guidance in the application of the EBSA criteria or to the template⁸⁷ used to describe EBSAs;
 - [(f) Land and/or maritime boundary disputes;]
 - (g) Editorial errors in an EBSA description.

Annex IV

PROPONENTS OF THE MODIFICATION OF DESCRIPTIONS OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS

1. For reasons (a) through (g) of annex III, the following can submit a proposal⁸⁸ for the modification of an EBSA description:
- (a) Within national jurisdiction [delimited by agreement and where no ongoing jurisdictional disputes exists between States]: the State(s) within whose jurisdiction(s) the modification is proposed;
 - [(b) In areas beyond national jurisdiction: [any] State and/or [competent intergovernmental organization] with provision of notice to all States and to any other relevant global, regional, subregional and sectoral bodies dealing with other relevant compatible and complementary measures to enhance the conservation and sustainable use of marine areas;]
 - [(c) In areas both within and beyond national jurisdiction(s): the State(s) within whose jurisdiction(s) the area subject to a modification proposal is partially located and any State and/or competent intergovernmental organization for the part of the EBSA that is located in areas beyond national jurisdiction, without prejudice to the measures taken and the exercise of the sovereign rights of the State(s) within whose jurisdiction(s) the proposed area is partially located.]
2. For reason (g), the Secretariat may propose the modification of an EBSA description.

⁸⁷ <http://www.cbd.int/doc/meetings/mar/ebaws-2015-01/other/ebaws-2015-01-template-en.dot>

⁸⁸ A proposal for modification is comprised of a submission to the Secretariat explaining the elements of the EBSA description in potential need of modification and why.

3. The proponents are encouraged to collaborate with holders of relevant knowledge, including traditional knowledge holders, in the development of proposals for modification.

Annex V

**MODIFICATION OF DESCRIPTIONS OF ECOLOGICALLY OR BIOLOGICALLY
SIGNIFICANT MARINE AREAS FOR EDITORIAL REASONS**

1. In the case of editorial errors in a previous EBSA description:
 - (a) The Secretariat, on its own initiative or when informed by State(s), disseminates a notification regarding the proposed modification;
 - (b) The Secretariat implements the proposed modification within three months of issuance of the above notification;
 - (c) A report on modifications made for reason (g) is made available to the Subsidiary Body on Scientific, Technical and Technological Advice and to the Conference of the Parties for information.

Annex VI

**MODIFICATION OF DESCRIPTIONS OF ECOLOGICALLY OR BIOLOGICALLY
SIGNIFICANT MARINE AREAS WITHIN NATIONAL JURISDICTION, INCLUDING EBSAS
STRADDLING MULTIPLE NATIONAL JURISDICTIONS**

1. For reasons (a) through (f) of annex III and for inclusion in the EBSA repository:
 - (a) The proposal for modification of an EBSA description is submitted to the Secretariat by [relevant proponents in accordance with annex IV] [[all] the State(s) within whose jurisdiction(s) the modification is located [which are affected by the modification]], together with information on the process that produced the proposed modification, including any scientifically sound peer-review process [,and, in cases where information based on traditional knowledge is included, any information on consultations with indigenous peoples and local communities conducted with their prior and informed consent or free, prior and informed consent or with the approval and involvement of indigenous peoples and local communities [, in accordance with United Nations Declaration on the Rights of Indigenous Peoples]];⁸⁹
 - (b) The Secretariat disseminates information about the proposed modification through a CBD notification. The proposed modification will be open for comments by Parties, and [if requested by the proponent(s),] [other Governments] [and relevant organizations][and holders of relevant knowledge] for a period of three months. The Secretariat sends the comments directly to the proponent(s) for consideration, and the proponent(s) will then have three months to consider adjusting the proposal in response to the comments, as appropriate, and/or to issue a response to [any] of the comments, [if they wish];
 - (c) The Secretariat also issues notifications biannually regarding the status of all proposals for modifications received by the Secretariat;
 - [(d) The Secretariat compiles a report, including comments received and responses, if applicable, [and, in cases where information based on traditional knowledge is included, any information on consultations with indigenous peoples and local communities, with their prior and informed consent or free, prior and informed consent or with the approval and involvement of indigenous peoples and local communities,[in accordance with United Nations Declaration on the Rights of Indigenous Peoples]], to be made available to the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties for consideration and endorsement with a view to including the endorsed

⁸⁹ Voluntary guidelines on peer-review processes to be developed by the Executive Secretary for the consideration of the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties.

modification in the repository. [In preparing the report, the Secretariat may seek the advice of a relevant expert advisory body mandated by the Conference of the Parties];]

(e) As an alternative to paragraph 1(d), and as decided by the proponent, the Secretariat compiles a report to be made available for the [information] / [consideration] of the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties and inclusion in the repository;]

(f) The previous EBSA description, and the modality by which it was included in the repository, will remain available in the information-sharing mechanism.

[2. For reasons (a) through (f) of annex III and for inclusion of the modification in the EBSA information-sharing mechanism;

(a) The modification of an EBSA description is submitted to the Secretariat together with information on the process that produced the proposed modification, including the scientifically sound nationally agreed peer-review process;

(b) The Secretariat disseminates information about the modification through a CBD notification. [The modification will be open for comments by Parties, other Governments, relevant organizations and holders of relevant knowledge for a period of three months. The Secretariat sends the comments directly to the proponent(s) for consideration, and the proponent(s) will then have three months to consider adjusting the proposal in response to the comments, as appropriate, and/or to issue a response to the comments, if they wish];

(c) The Secretariat also issues notifications biannually regarding all modifications received by the Secretariat;

(d) The Secretariat compiles a report to be made available to the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties for information. Links to information on the modification, which should be supported with best available information and using best practices, are included in the information-sharing mechanism, and are reflected on the EBSA website.]

Annex VII

MODIFICATION OF DESCRIPTIONS OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS IN AREAS BEYOND NATIONAL JURISDICTION

1. For reasons (a) through (f) and inclusion in the EBSA repository:

(a) The proposal for a modification of an EBSA description is submitted to the Secretariat, together with information on the process that produced the proposal for modification, including the scientifically sound peer review;

(b) The Secretariat posts information about the proposed modification on the EBSA website and issues notifications biannually regarding proposals for modifications received by the Secretariat;

(c) The Secretariat prepares a report on the proposal that is disseminated through a CBD notification, including to relevant global and regional organizations, with a period of three months for public comment. The proponent will then have three months to adjust the proposal in response to the comments, as appropriate, and/or to issue a response to any of the comments. A revised report on modifications, including comments received, is prepared by the Secretariat and submitted to the Subsidiary Body on Scientific, Technical and Technological Advice and to the Conference of the Parties for consideration. Experts who participated in the workshop at which the EBSA was originally described as well as a relevant expert advisory body mandated by the Conference of the Parties may provide advice in the preparation of this report;

(d) On the basis of the revised report, the Conference of the Parties decides on one of the following:

- (i) Request inclusion of the modification in the repository;
- (ii) If further analysis and review of the proposal is required, request the Secretariat to convene an expert workshop, subject to the availability of resources, to review the proposed modifications. The Secretariat may seek the advice of a relevant expert advisory body mandated by the Conference of the Parties in the planning of the workshop. Experts who participated in the workshop at which the EBSA were originally described will be involved, if possible, in the review. The output of the workshop is submitted to the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties for consideration;
- (e) The previous EBSA description, and the modality by which it was included in the repository, will remain available in the information-sharing mechanism.

Annex VIII

MODIFICATION OF DESCRIPTIONS OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS STRADDLING AREAS WITHIN AND BEYOND NATIONAL JURISDICTION

1. For reasons (a) through (f) and inclusion in the EBSA repository:
 - (a) The proposal for a modification of an EBSA description is submitted to the Secretariat, together with information on the process that produced the proposal for modification, including the scientifically sound peer review;
 - (b) The Secretariat posts information about the proposed modification on the EBSA website and issues notifications biannually regarding proposals for modifications received by the Secretariat;
 - (c) On the basis of those proposals, the Secretariat prepares a report on the proposals that is disseminated through a CBD notification, including to relevant global and regional organizations, with a period of three months for public comment. The proponent(s) will then have three months to adjust the proposal in response to the comments, as appropriate. A revised report on modifications, including comments received, is prepared by the Secretariat and submitted to the Subsidiary Body on Scientific, Technical and Technological Advice and to the Conference of the Parties for consideration. Experts who participated in the workshop at which the EBSAs were originally described may provide, if relevant, advice in the preparation of this report;
 - (d) On the basis of the revised report, the Conference of the Parties decides on one of the following:
 - (i) Request inclusion of the modification(s) in the repository;
 - (ii) If further analysis and review of the proposals is required, request the Secretariat to convene an expert workshop, subject to the availability of resources, to review the proposed modifications. The Secretariat may seek the advice of a relevant expert advisory body mandated by the Conference of the Parties to provide advice in the planning of the workshop. Experts who participated in the workshop at which the EBSAs were originally described will be involved, if possible, in the review process. The output of the workshop is submitted to the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties for consideration;
 - (e) The previous EBSA description(s), and the modality by which it was included in the repository, will remain available in the information-sharing mechanism.

*Annex IX***PROPONENTS FOR THE DESCRIPTION OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS**

1. The following can submit a proposal for the description of an EBSA:
 - (a) Within national jurisdiction: the State(s) within whose jurisdiction(s) the area is proposed;
 - (b) In areas beyond national jurisdiction: any State and/or competent intergovernmental organization;
 - (c) In areas straddling within and beyond national jurisdiction: the State(s) within whose jurisdiction(s) the proposed area is partially located.
2. The proponents are encouraged to collaborate with holders of relevant knowledge, including traditional knowledge holders, in the development of proposals.

*Annex X***DESCRIPTION OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS WITHIN NATIONAL JURISDICTION, INCLUDING EBSAs STRADDLING MULTIPLE NATIONAL JURISDICTIONS**

1. For inclusion in the EBSA repository:
 - (a) The proposal is submitted to the Secretariat by the State(s) within whose jurisdiction(s) the proposed EBSA is located, using the EBSA template, together with information on the process that produced the proposal, including the scientifically sound nationally agreed peer-review process;⁹⁰
 - (b) The Secretariat disseminates the proposal through a CBD notification. [If requested by the proponent(s),] the notification will be kept open for a period of three months for comments by Parties, [other Governments][and relevant organizations][and knowledge holders] on the proposal. The Secretariat sends the comments directly to the proponent(s) for consideration, and the proponent(s) will then have three months to consider adjusting the proposal in response to the comments, as appropriate, and/or to issue a response to any of the comments, if they wish;
 - (c) The Secretariat also issues notifications biannually regarding the status of all proposals for new EBSAs received by the Secretariat;
 - (d) The Secretariat compiles a report, including comments received, [and in cases where information based on traditional knowledge is included, any information on consultations with indigenous peoples and local communities, and information on whether such knowledge was obtained with their prior and informed consent or free, prior and informed consent or with the approval and involvement of indigenous peoples and local communities], to be made available to the Subsidiary Body on Scientific, Technical and Technological Advice and to the Conference of the Parties, for consideration with a view to inclusion of the proposed description in the repository. [In preparing the report, the Secretariat may seek the advice of a relevant expert advisory body mandated by the Conference of the Parties];
 - [(e) As an alternative to paragraph 1(d), and as decided by the proponent, the Secretariat compiles a report to be made available to the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties for information and inclusion in the repository];
 - (f) As an alternative to paragraph 1(a)-(e), and in line with paragraph 36 of decision X/29, new EBSAs may be described through a regional workshop convened by the Secretariat, subject to the availability of resources, the outputs of which are submitted for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice and by the Conference of the Parties. For new areas

⁹⁰ Voluntary guidelines on peer-review processes to be developed by the Executive Secretary for the consideration of the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties.

proposed within national jurisdiction, the proponent(s) will be the State(s) in whose jurisdiction(s) the area is proposed.

[2. For inclusion in the EBSA information-sharing mechanism:

(a) The description is submitted to the Secretariat by [all] the State(s) within whose jurisdiction(s) the proposed EBSA is located, together with information on the process that produced the proposed modification, including the scientifically sound nationally agreed peer-review process;

(b) The Secretariat disseminates the description through a CBD notification;

(c) The Secretariat also issues notifications biannually regarding all descriptions of new areas received by the Secretariat;

(d) The Secretariat compiles a report to be made available to the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties for information. Subsequently, links to the information on the description, which should be supported with best available information and using best practices, are included in the information-sharing mechanism and are reflected on the EBSA website.]

Annex XI

DESCRIPTION OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS IN AREAS BEYOND NATIONAL JURISDICTION

1. For inclusion in the EBSA repository:

(a) The proposal for an EBSA description is submitted to the Secretariat, using the EBSA template, together with information on the process that produced the proposal, including the scientifically sound peer review;

(b) The Secretariat posts information about the proposal on the EBSA website;

(c) The Secretariat also issues notifications biannually regarding all proposals for new areas received by the Secretariat;

(d) On the basis of those proposals, the Secretariat submits a report to the Conference of the Parties, which decides on one of the following two approaches:

(i) Request the Secretariat to convene an expert workshop, subject to the availability of resources, to review the proposals. The Secretariat may seek the advice of a relevant expert advisory body mandated by the Conference of the Parties to provide advice in the planning of the workshop. The output of the workshop is submitted to the Subsidiary Body on Scientific, Technical and Technological Advice and to the Conference of the Parties for their consideration;

(ii) Request the Secretariat to disseminate the report through CBD notification with a period of three months for public comment. The proponent will then have three months to adjust the proposal in response to the comments, as appropriate. A report on the proposals is prepared by the Secretariat and submitted to the Subsidiary Body on Scientific, Technical and Technological Advice and to the Conference of the Parties for consideration;

(e) Alternately, and in line with decision X/29, paragraph 36, new EBSAs may be described through a regional workshop convened by the Secretariat, subject to the availability of resources, the outputs of which are submitted for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice and by the Conference of the Parties. Description of new EBSAs should be supported with the best available information.

*Annex XII***DESCRIPTION OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS STRADDLING AREAS BOTH WITHIN AND BEYOND NATIONAL JURISDICTION**

1. For inclusion in the EBSA repository:
 - (a) The proposal for an EBSA description is submitted to the Secretariat, using the EBSA template, together with information on the process that produced the proposal;
 - (b) The Secretariat posts information about the proposal on the EBSA website;
 - (c) The Secretariat also issues notifications biannually regarding all proposals for new areas received by the Secretariat;
 - (d) On the basis of those proposals, the Secretariat submits a report to the Conference of the Parties, which decides on one of the following two approaches:
 - (i) Request the Secretariat to convene an expert workshop, subject to the availability of resources, to review the proposals. The Secretariat may seek the advice of a relevant expert advisory body mandated by the Conference of the Parties to provide advice in the planning of the expert workshop. The output of the expert workshop is submitted to the Subsidiary Body on Scientific, Technical and Technological Advice and to the Conference of the Parties for their consideration;
 - (ii) Request the Secretariat to disseminate the report through CBD notification with a period of three months for public comment. The proponent will then have three months to adjust the proposal in response to the comments, as appropriate. A report on the proposals is prepared by the Secretariat and submitted to the Subsidiary Body on Scientific, Technical and Technological Advice and to the Conference of the Parties for consideration;
 - (e) Alternately, and in line with decision X/29, paragraph 36, new EBSAs may be described through a regional workshop convened by the Secretariat, subject to the availability of resources, the outputs of which are submitted for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice and by the Conference of the Parties. Description of new EBSAs should be supported with best available information.

II. ACCOUNT OF PROCEEDINGS

INTRODUCTION

A. Background

1. Part I of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biological Diversity was held online from 3 May to 9 June 2021, back-to-back with part I of the third meeting of the Subsidiary Body on Implementation. It was understood that the meeting would be resumed for a second part, in-person, at a later date.

2. Part II of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biological Diversity was held at the International Conference Centre Geneva in Geneva, Switzerland, from 14 to 27 March 2022, in conjunction and concurrently with part II of the third meeting of the Subsidiary Body on Implementation and part II of the third meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework.

B. Attendance⁹¹

3. The meeting was attended by representatives of the following Parties and other Governments:

Albania	Chad**	Guatemala
Algeria	Chile	Guinea**
Angola**	China	Guinea-Bissau**
Antigua and Barbuda	Colombia	Guyana
Argentina	Comoros	Haiti
Armenia	Costa Rica	Holy See**
Australia	Croatia	Hungary
Austria	Cuba	Iceland
Azerbaijan*	Czechia	India
Bahamas	Côte d'Ivoire**	Indonesia
Bahrain**	Democratic Republic of the Congo	Iran (Islamic Republic of)
Bangladesh	Denmark	Ireland
Barbados*	Djibouti**	Israel
Belarus	Dominican Republic	Italy
Belgium	Ecuador	Jamaica
Belize	Egypt	Japan
Benin**	El Salvador*	Jordan
Bhutan	Eritrea**	Kenya
Bolivia (Plurinational State of)**	Estonia	Kuwait
Bosnia and Herzegovina	Ethiopia	Latvia
Botswana	European Union	Lebanon**
Brazil	Fiji	Lesotho**
Bulgaria*	Finland	Liberia
Burkina Faso	France	Libya*
Burundi**	Gabon**	Lithuania**
Cabo Verde	Georgia	Luxembourg
Cambodia	Germany	Madagascar
Cameroon	Ghana	Malawi
Canada	Greece	Malaysia
Central African Republic**	Grenada	Maldives
		Malta

⁹¹ Participants with one asterisk (*) registered for part I of the meeting only; participants with two asterisks (**) registered for part II of the meeting only.

Mauritius**	Portugal	Syrian Arab Republic*
Mexico	Qatar**	Tajikistan**
Micronesia (Federated States of)*	Republic of Korea	Thailand
Monaco	Republic of Moldova**	Togo
Mongolia**	Russian Federation	Tonga
Montenegro**	Saint Kitts and Nevis**	Trinidad and Tobago
Morocco	Saint Lucia	Tunisia
Mozambique	Saint Vincent and the Grenadines	Turkey
Myanmar*	Samoa	Uganda
Namibia	Saudi Arabia	Ukraine
Nepal**	Senegal	United Arab Emirates
Netherlands	Serbia	United Kingdom of Great Britain and Northern Ireland
New Zealand	Seychelles	Ireland
Nicaragua**	Singapore	United Republic of Tanzania**
Niger**	Slovakia	United States of America
Nigeria	Slovenia	Uruguay**
Norway	Somalia**	Uzbekistan**
Oman**	South Africa	Venezuela (Bolivarian Republic of)
Pakistan	Spain	Viet Nam
Palau	Sri Lanka	Yemen**
Panama	State of Palestine	Zambia
Paraguay	Sudan	Zimbabwe**
Peru	Suriname	
Philippines	Sweden	
Poland	Switzerland	

4. Observers from the following United Nations bodies, specialized agencies, convention secretariats and other bodies also attended:

African-Eurasian Migratory Waterbird Agreement**	Secretariat of the Basel, Rotterdam and Stockholm Conventions**
Convention on International Trade in Endangered Species of Wild Fauna and Flora**	Secretariat of the Carpathian Convention
Convention on the Conservation of Migratory Species of Wild Animals	UNEP World Conservation Monitoring Centre
Food and Agriculture Organization of the United Nations	UNEP/MAP Regional Activity Centre for Specially Protected Areas
Global Environment Facility	UNESCO World Heritage Centre**
Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services	United Nations Conference on Trade and Development
International Fund for Agricultural Development**	United Nations Convention to Combat Desertification
International Labour Organization**	United Nations Development Programme
International Maritime Organization	United Nations Division for Ocean Affairs and the Law of the Sea
International Seabed Authority*	United Nations Economic Commission for Latin America and the Caribbean*
International Treaty on Plant Genetic Resources for Food and Agriculture**	United Nations Educational, Scientific and Cultural Organization
Minamata Convention on Mercury**	United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women)
Office of the United Nations High Commissioner for Human Rights	United Nations Environment Programme
	United Nations Human Settlements Programme**

United Nations Office for Project Services
 United Nations Permanent Forum on Indigenous
 Issues**
 United Nations University

World Health Organization
 World Intellectual Property Organization**
 World Meteorological Organization*

5. The following organizations were also represented by observers:

ABS Capacity Development Initiative
 Advanced Conservation Strategies**
 African Centre for Biodiversity
 African Indigenous Women's Organization
 (Nairobi)
 African Institute for Development Policy**
 African Union
 African Union Development Agency-NEPAD
 African Wildlife Foundation
 Agroecología Universidad Cochabamba**
 Aichi Prefecture
 ALMACIGA-Grupo de Trabajo Intercultural**
 Amazon Cooperation Treaty Organization**
 American Institute of Biological Sciences**
 Andes Chinchasuyo
 Arabian Leopard Fund**
 ASEAN Centre for Biodiversity
 Asia Indigenous Peoples Pact Foundation
 Asociación Ak'Tenamit**
 Asociación de la Juventud Indígena Argentina**
 Assembly of First Nations*
 Association of Fish and Wildlife Agencies
 Association of Indigenous Village Leaders in
 Suriname**
 Australian Conservation Foundation**
 Avaaz
 Barnes Hill Community Development
 Organization
 Beijing Chaoyang District Yongxu Global
 Environmental Institute**
 Beijing Greenovation Institute for Public
 Welfare Development**
 Biodiversity Hub International**
 Bioversity International
 BirdLife International
 Blue Ventures**
 Born Free Foundation
 Botanic Gardens Conservation International*
 Brahma Kumaris World Spiritual University**
 Brazilian Foundation for Sustainable
 Development**
 Brazilian Network of Plant-Pollinators
 Interactions*
 Brighter Green**
 CAF Development Bank of Latin America**
 California Natural Resources Agency*

Campaign for Nature*
 Canadian Environmental Network**
 Capitals Coalition
 Caribbean Community Secretariat*
 CBD Alliance
 Center for Biological Diversity*
 Center for Support of Indigenous Peoples of the
 North/Russian Indigenous Training Centre
 Centre de Coopération Internationale en
 Recherche Agronomique pour le
 Développement**
 Centre for European Policy Studies**
 Centre for Indigenous Peoples Research and
 Development**
 Centre for International Sustainable
 Development Law*
 Centro para la Investigación y Planificación del
 Desarrollo Maya
 CGIAR**
 Change our Next Decade
 Chartered Institute of Ecology and
 Environmental Management**
 China Biodiversity Conservation and Green
 Development Foundation**
 China Environmental Protection Foundation**
 Clan Ancestral Quinatoa*
 ClientEarth
 Coalition of the Willing on Pollinators**
 Coastal Oceans Research and Development in
 the Indian Ocean
 College of the Atlantic**
 Colorado State University*
 Comité français de l'UICN**
 Commission des Forêts d'Afrique Centrale**
 Confederação Nacional da Indústria**
 Consejo Shipibo Konibo Xetebo
 Conselho Empresarial Brasileiro para o
 Desenvolvimento Sustentavel**
 Conservation International
 Convention on the Conservation of European
 Wildlife and Natural Habitats, Council of
 Europe (Bern Convention)**
 Cooperativa Autogestionaria de Servicios
 Profesionales para la Solidaridad Social, R.L.
 Coordinadora Andina de Organizaciones
 Indígenas**

Coordinadora de las Organizaciones Indígenas
de la Cuenca Amazónica**
 Coral Triangle Initiative on Coral Reefs,
Fisheries and Food Security**
 Cornell University
 CropLife International
 Cultural Survival**
 David Shepherd Wildlife Foundation
 Deep Sea Conservation Coalition**
 Deep-Ocean Stewardship Initiative / University
of Southampton**
 Defenders of Wildlife
 DHI Water & Environment
 Duke Kunshan University
 Duke University
 Earth BioGenome Project / University of
California, Davis**
 Earth Island Institute**
 Earth Law Center**
 Earthjustice**
 Ecologistas en Acción**
 EcoNexus
 ECOROPA
 Elephant Protection Initiative Foundation**
 Enda Santé**
 Endangered Wildlife Trust**
 Environmental Defense Fund**
 Environmental Investigation Agency*
 ETC Group
 Eurogroup for Animals**
 European Bureau for Conservation and
Development
 Every Woman Hope Centre*
 Expertise France**
 Fauna & Flora International*
 Federación Indígena Empresarial y
Comunidades Locales de México**
 Federation of German Scientists
 Finance for Biodiversity Foundation**
 Fondation Franz Weber
 Fondo para el Desarrollo de los Pueblos
Indígenas de América Latina y el Caribe**
 Forest Peoples Programme
 Forest Stewardship Council
 Forest Watch Indonesia**
 Forests of the World**
 Forum Environment and Development (Forum
Umwelt & Entwicklung)*
 Forum for Environment and Development**
 Foundation for the National Institutes of Health
 Foundation of Future Farming (Zukunftsstiftung
Landwirtschaft)**
 Friends of the Earth Europe
 Friends of the Earth International
 Friends of the Earth U.S.*
 Friends of the Siberian Forests**
 Fundación Ambiente y Recursos Naturales
 Fundación para la Promoción del Conocimiento
Indígena**
 Future Earth
 GenØk - Centre for Biosafety*
 German Centre for Integrative Biodiversity
Research (iDiv) Halle-Jena-Leipzig
 German Nature Conservation Union (NABU)**
 German Research Foundation (DFG)**
 Ghent University
 Global Biodiversity Information Facility
 Global Forest Coalition
 Global Industry Coalition
 Global Ocean Biodiversity Initiative
 Global Youth Biodiversity Network
 Global Youth Online Union
 Greenpeace International
 Griffith University
 Group on Earth Observations**
 Group on Earth Observations Biodiversity
Observation Network
 Heinrich Böll Foundation**
 Helmholtz Centre for Environmental Research -
UFZ**
 Heñói**
 Heriot-Watt University
 ICCA Consortium
 ICLEI - Local Governments for Sustainability
 Ifakara Health Institute**
 Imperial College London
 Indigenous Information Network
 Indigenous Peoples of Africa Co-ordinating
Committee**
 Indigenous Peoples' Center for Documentation,
Research and Information**
 Indigenous Reference Group of the Fisheries
Research and Development Corporation**
 Indigenous Women's Biodiversity Network**
 Institut de la Francophonie pour le
développement durable**
 Institut de recherche en sciences de la santé
 Institut de Recherche pour le Développement*
 Institut du développement durable et des
relations internationales
 Institute for Biodiversity Network
 Institute for Global Environmental Strategies*
 Inter-American Institute for Cooperation on
Agriculture
 International Chamber of Commerce

International Collective in Support of Fishworkers
 International Coral Reef Initiative
 International Council for Game and Wildlife Conservation (CIC)**
 International Council of Environmental Law*
 International Council on Mining and Metals*
 International Environment Forum**
 International Federation of Pharmaceutical Manufacturers and Associations
 International Federation of Red Cross and Red Crescent Societies**
 International Fertilizer Association
 International Fund for Animal Welfare
 International Grain Trade Coalition*
 International Indian Treaty Council**
 International Indigenous Forum on Biodiversity
 International Institute for Applied Systems Analysis**
 International Institute for Environment and Development
 International Partnership for the Satoyama Initiative
 International Planning Committee for Food Sovereignty
 International Studies Association**
 International Trade Centre**
 International Tropical Timber Organization*
 International Union for Conservation of Nature (IUCN)
 International Union for the Protection of New Varieties of Plants**
 International Union of Biological Sciences*
 International University Network on Cultural and Biological Diversity
 International Whaling Commission**
 Inuit Circumpolar Council*
 IPIECA
 Island Conservation
 Italian Climate Network (ItaliaClima)**
 J. Craig Venter Institute
 Jabalbina Yalanji Aboriginal Corporation*
 Japan Civil Network for the United Nations Decade on Biodiversity
 Japan Committee for IUCN
 Japan Environmental Lawyers for Future
 Japan Wildlife Research Center
 Keele University**
 Kenya Plant Health Inspectorate Service**
 Land is Life**
 Leibniz Institute of Plant Genetics and Crop Plant Research**
 Leibniz-Institute DSMZ (German Collection of Microorganisms and Cell Cultures)
 Les Amis de la Terre - Togo**
 Linking Tourism & Conservation**
 Lupane State University**
 Malaria Research and Training Center**
 Marine Conservation Society**
 Max Planck Institute for Social Anthropology**
 McGill University*
 McMaster University
 Mesa Nacional Indígena de Costa Rica**
 Ministry of Environment of Finland**
 Missionary Society of St. Columban**
 Missouri Botanical Garden*
 Mount Holyoke College**
 Mouvement d'Organisation des Ruraux pour le Développement**
 Nagoya University
 National Geographic Society
 National Institute for Environmental Studies*
 Natural Resources Defense Council
 Nature Conservancy of Canada**
 Nature Conservation Society of Japan
 North Carolina State University
 New Wind Association*
 Nia Tero
 Nirmanee Development Foundation*
 Nordic Council of Ministers
 Norwegian Forum for Development and Environment**
 OceanCare*
 OGIEK Peoples Development Program**
 On the EDGE Conservation**
 One World Analytics**
 Organisation for Economic Co-operation and Development
 Pacific Environment**
 Pan African Sanctuary Alliance**
 Pan-African Mosquito Control Association (PAMCA)**
 Panthera**
 Parabukas*
 Partners for Indigenous Knowledge Philippines**
 PBL Netherlands Environmental Assessment Agency
 Pesticide Action Network UK
 Planet Tracker
 Plantlife International**
 Plateforme Océan et Climat**
 POLLINIS
 Polo Innovazione Genomica Genetica e Biologia**

Public Research and Regulation Initiative
 Rainforest Foundation Norway
 Ramsar Convention on Wetlands
 Ramsar Network Japan
 Rare
 Re:wild**
 Red de Cooperación Amazónica**
 Red de Mujeres Indígenas sobre Biodiversidad
 para América Latina y el Caribe
 Reforestamos México AC**
 Regions4 Sustainable Development
 Research Institute for Humanity and Nature*
 Réseau des gestionnaires d'aires marines
 protégées en Méditerranée
 Resources Legacy Fund**
 Revive & Restore**
 Royal Botanic Gardens, Kew
 Royal Society for the Protection of Birds
 Rueda de Medicina y Asociados, A.C.**
 Saami Council*
 Saami Council - Norway**
 Saami Parliament**
 Sasakawa Peace Foundation
 Save our Seeds
 Secretariat of the Pacific Regional Environment
 Programme
 Smithsonian Institution*
 Society for Ecological Restoration
 Society for the Preservation of Natural History
 Collections (SPNHC)
 Society for Wetland Biodiversity Conservation -
 Nepal
 Soka Gakkai International**
 South Asia Co-operative Environment
 Programme
 South Centre
 Southeast Asia Regional Initiatives for
 Community Empowerment
 Stand.earth**
 Stockholm Resilience Centre
 Stop Ecocide Foundation**
 Survival**
 Sustainable Development Solutions Network**
 Sustainable Environment Food and Agriculture
 Initiative**
 SVS/BirdLife Switzerland**
 Tebtebba Foundation
 The Nature Conservancy
 The Pew Charitable Trusts
 The World Bank Group*

Third World Network
 TRAFFIC International
 Tulalip Tribes
 Uganda Virus Research Institute
 Union for Ethical BioTrade
 United States Council for International
 Business**
 Universidad Nacional Agraria La Molina**
 Universidad Nacional Federico Villarreal*
 Université Saint-Louis - Bruxelles**
 University of California*
 University of Cambridge*
 University of Cambridge Conservation
 Leadership Alumni Network**
 University of Edinburgh*
 University of Geneva - GEDT Research Hub**
 University of Ghana**
 University of Guelph
 University of Manchester**
 University of Oxford**
 University of the Philippines Los Banos**
 University of Vienna**
 Unnayan Onneshan**
 Wellcome Sanger Institute**
 Western Ghats Hotspot Conservation Forum*
 Western Michigan University
 Wetlands International**
 Wetlands International - Japan*
 Wildlands Conservation Trust**
 Wildlife Conservation Society
 Women Engage for a Common Future
 Women's Environment & Development
 Organization**
 World Agroforestry Centre
 World Animal Protection
 World Business Council for Sustainable
 Development
 World Federation for Animals**
 World Future Council**
 World Overview of Conservation Approaches
 and Technologies**
 Worldrise Onlus**
 WWF International
 Yellowstone to Yukon Conservation Initiative**
 Youth Biotech
 Zambia Alliance for Agroecology and
 Biodiversity**
 Zoi Environment Network**
 Zoo and Aquarium Association Australasia**
 Zoological Society of London

ITEM 1. OPENING OF THE MEETING

6. Part I of the meeting was opened at 11.00 Universal Time Coordinated (UTC) (7 a.m. Montreal time) on Monday, 3 May 2021, by the Chair, Mr. Hesiquio Benítez Díaz (Mexico), who welcomed the participants to the first of nine virtual plenary sessions that would take place in three blocks during May and June, back-to-back with the third meeting of the Subsidiary Body on Implementation, which would also hold its plenary sessions online in three blocks. He expressed the hope that the participants, and those close to them, were healthy and safe, and his condolences to those that had lost loved ones. He called for a moment of silence to remember those lost during the coronavirus disease (COVID-19) pandemic.

7. Opening statements were made by Mr. Hamdallah Zedan (Egypt) and Ms. Elizabeth Maruma Mrema, Executive Secretary of the Convention on Biological Diversity.

8. Mr. Zedan, speaking on behalf of the President of the Conference of the Parties, welcomed the participants and expressed his solidarity with them during the pandemic and his hope that they and their loved ones were well. He thanked the Chair of the Subsidiary Body and the members of the Bureau for their leadership in preparing for the meeting and said that, under their guidance, the participants would carry forward the work of the Convention and its Protocols. The current meeting would advance preparations for the fifteenth meeting of the Conference of the Parties. The agenda items covered the principal areas of work of the Convention and its Protocols, and progress on them would allow the development of an ambitious and transformative post-2020 global biodiversity framework by providing advice to the Open-ended Working Group on the Post-2020 Global Biodiversity Framework for its third meeting. The discussions at the current meeting would advance the work of the Working Group and ultimately the work of the Conference of the Parties, which was scheduled to adopt the post-2020 global biodiversity framework at its fifteenth meeting, in Kunming, China.

9. Ms. Elizabeth Maruma Mrema, Executive Secretary of the Convention on Biological Diversity, also delivered opening remarks, thanking the Chair and the other members of the Bureau for their leadership in preparing for the formal session of the Subsidiary Body in difficult times, as well as the Government of Canada for covering the additional costs of the virtual formal session and providing a dedicated team of volunteers. Noting that over 1,500 people representing 102 countries were registered, she expressed the hope that participants had had the opportunity to attend the pre-meeting webinars and the informal session held earlier in the year in preparation for the current formal session. The Executive Secretary briefly reviewed the items that were on the agenda of the meeting.

10. The Chair also provided an update on the fifth Science-Policy Forum for Biodiversity and the eighth International Conference on Sustainability Science, which had been held virtually as joint sessions the previous month. The main message conveyed was that coming decade would be crucial for bending the curve of biodiversity loss, putting biodiversity on a path towards living in harmony with nature. The post-2020 global biodiversity framework would need to be both nature positive, aiming for a net gain in the status of biodiversity and nature's contribution to people by 2030, and reflect the systemic challenges. For mainstreaming of biodiversity to be implemented effectively, central attention needed be given to nature-based solutions that were framed by ecosystem approaches. Ambitious targets were needed to address the systemic drivers of biodiversity loss, as were actions that went beyond limiting biodiversity loss to supporting restoration and moved towards a "net gain" through regenerative practices.

11. Part II of the meeting was opened at 10.15 a.m. on Monday, 14 March 2022, by Ms. Zhou Guomei (China), representing the Presidency of the fifteenth meeting of the Conference of the Parties, also on behalf of the Chair of the Subsidiary Body, Mr. Hesiquio Benítez Díaz (Mexico), in a joint session held to also open part II of the third meeting of the Subsidiary Body on Implementation and part II of the third meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework.

12. Opening statements were made by Ms. Zhou, Mr. Franz Perrez (Switzerland) and Ms. Elizabeth Maruma Mrema, Executive Secretary of the Convention on Biological Diversity.

13. Ms. Zhou delivered her statement on behalf of Mr. Huang Runqiu, Minister of Ecology and Environment of China and President of the fifteenth meeting of the Conference of the Parties. She thanked

the Government and people of Switzerland for hosting the meeting, which would advance preparations for part II of the fifteenth meeting of the Conference of the Parties and the adoption of a new global biodiversity framework, setting the pathway for addressing the biodiversity crisis and achieving the vision of living in harmony with nature by 2050. That meeting would mark a turning point in the global effort to safeguard cultural and biological diversity and build a shared future for all life on Earth. Its theme, “Ecological civilization: building a shared future for all life on Earth”, highlighted the shared future of humanity and nature; nature was essential for life and required respect and protection to ensure that it was used sustainably and its benefits were shared fairly and equitably.

14. Part I of the fifteenth meeting of the Conference of the Parties had demonstrated political energy by boosting ambition, enhancing collaboration and synergies across multilateral agreements, and strengthening global biodiversity governance. The Kunming Declaration would ensure that biodiversity was on a path towards recovery by 2030, and the Kunming Biodiversity Fund announced by President Xi Jinping would help to implement the new global biodiversity framework in developing countries. The present meeting would continue to deliver on the Kunming Declaration to aid in the creation of a global ecological civilization that conserved and protected biodiversity for sustainable development by helping the international community to enhance cooperation and built consensus, in order to bend the curve of biodiversity loss and place biodiversity on the path to recovery.

15. Speaking on behalf of the Government of Switzerland, Mr. Perrez welcomed participants to Geneva but registered concern regarding Ukraine, in particular the humanitarian situation and widespread damage, including ongoing environmental degradation. Switzerland considered that problems should be solved together, in full respect of international law and the Charter of the United Nations, and placed a high value on multilateralism, including the work to be done at the current meetings. The adoption of an ambitious, effective and transformative post-2020 global biodiversity framework was a high priority for Switzerland. While the 17 days allocated for the meetings allowed enough time to finalize the preparatory work for a successful meeting of the Conference of the Parties in Kunming, the time had to be used efficiently and wisely, with a focus on what was needed, namely the constructive, solution-oriented engagement and commitment of the participants. Rather than focusing on what could they get out of the framework and its enabling conditions, Parties should focus on how they could contribute to biodiversity protection and sustainable use, and agree on goals and targets that each Party would strive to achieve because stopping and reversing biodiversity loss was in its own best interest. Geneva’s *jet d’eau* should inspire Parties to high ambitions and readiness for compromise, for the benefit of all.

16. In her statement, the Executive Secretary welcomed the participants to the first in-person meetings under the Convention since the start of the coronavirus disease (COVID-19) pandemic and expressed appreciation to China for its hosting of part I of the fifteenth meeting of the Conference of the Parties, which had culminated in the adoption of the Kunming Declaration and the establishment of the Kunming Biodiversity Fund; to the Chairs of the subsidiary bodies and Co-Chairs of the Working Group for their continued leadership in difficult times; to the Government of Switzerland for hosting the current meetings; to the Governments of Australia, Austria, Belgium, Canada, Finland, Germany, Japan, Malta, Monaco, the Netherlands, New Zealand, Sweden, Switzerland and the United Kingdom of Great Britain and Northern Ireland, as well as the European Union, for providing the support to ensure the participation of every eligible Party; and to the Governments of Australia, Germany, New Zealand, Norway, Slovakia and Sweden for their support to ensure the presence of experts and representatives of indigenous peoples and local communities.

17. The work of the subsidiary bodies and the Working Group over the coming days, underpinned by the clear political direction provided by the Kunming Declaration, would, she said, be key to ensuring the progress needed to enable the world leaders attending part II of the fifteenth meeting of the Conference of the Parties to achieve the historic outcome of a post-2020 global biodiversity framework with the necessary resources and a sufficiently effective monitoring and review mechanism to respond to the world’s call for urgent action to transform humanity’s unsustainable relationship with nature and bend the curve of biodiversity loss. Already, the Global Environment Facility, in partnership with the United Nations Development Programme and the United Nations Environment Programme, was taking action to fast-track

support to governments to prepare for the rapid implementation of the framework; China was developing modalities for the Kunming Biodiversity Fund; and developed countries were committing to doubling their funding for biodiversity. Commending those initiatives and others under the Sharm El-Sheikh to Kunming Action Agenda for Nature and People, she called upon on all actors to strengthen and act on their commitments. To that end, it was crucial to emerge from the shadows of the global pandemic and military conflict that threatened peace and human well-being and to work together in a spirit of international cooperation and multilateralism. There was no time to waste. With the entire Secretariat team and the Bureaux standing ready to support them over the course of the coming days, she wished the participants every success in their deliberations.

18. The Executive Secretary led the participants in observing a few moments of silence for Mr. Orestes Plasencia, a member of the Secretariat who had passed away earlier in the year.

19. Regional statements were made by the representatives of Argentina (on behalf of the Latin American and Caribbean Group), France (on behalf of the European Union and its member States), Kuwait (on behalf of the Asia and Pacific Group), New Zealand (on behalf of Australia, Canada, Iceland, Israel, Japan, Monaco, Norway, the Republic of Korea, Switzerland, the United Kingdom and the United States of America) and Senegal (on behalf of the African Group). The statements are available under the “statements” tab, at <https://www.cbd.int/conferences/geneva-2022/sbstta-24/documents>.

20. The representative of Ukraine, asking that his statement be put on record, said that the Russian Federation was engaged in a full-scale, unprovoked and unjustified war against Ukraine, Europe and the entire world. The Russian Federation, he said, was attacking residential areas with missiles, destroying cities, towns and villages, with high civilian casualties, and was also destroying natural habitats, with more than half the Ramsar sites in Ukraine having been affected; it was estimated that the Russian Federation was currently conducting military operations in one third of Ukraine’s nature reserve fund area. He characterized the invasion of Ukraine as a flagrant violation of the Charter of the United Nations, international law, human rights, environmental and nuclear safety and security and global peace, posing an existential threat to the environment and human habitat, and called upon the international community to act to address the environmental consequences of the war.

21. The representative of the Russian Federation, exercising her right of reply to the statement of the representative of Ukraine, as well as those of the representatives of France (on behalf on the European Union and its member States) and New Zealand (on behalf of Australia, Canada, Iceland, Israel, Japan, Monaco, Norway, the Republic of Korea, Switzerland, the United Kingdom and the United States), rejected the accusations against her country as false and irrelevant to the substance of the issues being considered under the Convention and called on Parties to abstain from politicizing the current forum. She said that the Russian Federation was exercising its right to self-defence under Article 51 of the Charter of the United Nations by carrying out a special military operation aimed at demilitarizing and denazifying Ukraine and making it a neutral peaceful state. She asserted that the Russian Federation had consistently upheld the Convention as the main international instrument for cooperation on biodiversity and had been constructive in the development of the post-2020 global biodiversity framework, and affirmed her country’s commitment to depoliticizing interaction with all interested delegations, warning that continued anti-Russian rhetoric could result in unjustifiable delays in the negotiation process.

22. Statements were also made by representatives of the following organizations on behalf of major groups and stakeholders: Business for Nature coalition and Finance for Biodiversity Foundation; CBD Alliance; CBD Women’s Caucus; Global Youth Biodiversity Network (GYBN); Advisory Committee on Subnational Governments and Biodiversity; International Indigenous Forum on Biodiversity (IIFB); International Union for Conservation of Nature (IUCN); Liaison Group of the Biodiversity-related Conventions; University of Cambridge Conservation Leadership Alumni Network (UCCLAN); and World Wide Fund for Nature International (WWF). The statements are available under the “statements” tab, at <https://www.cbd.int/conferences/geneva-2022/sbstta-24/documents>.

23. At the second plenary session of part II of the meeting, on 14 March 2022, the Chair of the Subsidiary Body also welcomed the participants and expressed his pleasure at meeting in person with them.

He thanked the Executive Secretary and her staff for the preparations for the meeting and the members of the Bureau for their support in organizing it, and introduced Ms. Jihyun Lee, the new director of Science, Society and Sustainable Futures at the Secretariat, who would act as the secretary of the meeting.

24. The Chair recalled that since the previous in-person meeting of the Subsidiary Body, in November 2019, there had been over 70 virtual sessions of various types, including a formal and an informal session of the Subsidiary Body. While new ways of communicating had been developed, the previous method of work would still be essential for the smooth conduct of the present meeting and advancing progress towards the fifteenth meeting of the Conference of the Parties, and in particular the post-2020 global biodiversity framework. Pending the adoption of that framework, it would also be important to continue leveraging synergies with other processes. An example of that was the Government of Germany's contribution of 50 million euros to the Nature for Health trust fund, which had been jointly established by the German Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, the United Nations Environment Programme and the Secretariat of the Convention and was precisely the sort of partnership that would strengthen the implementation of the new framework and build a sustainable future for the planet.

ITEM 2. ORGANIZATIONAL MATTERS

25. At the first plenary session of part I of the meeting, on 3 May 2021, the Chair recalled that the informal virtual session of the Subsidiary Body held in February 2021 had contributed to maintaining momentum towards, and advancing the preparations for, the fifteenth meeting of the Conference of the Parties to the Convention, scheduled to be held from 11 to 24 October 2021, and the third meeting of Open-ended Working Group on the Post-2020 Global Biodiversity Framework, scheduled to be held in August 2021. The current meeting had been organized in the light of both those meetings and the extraordinary circumstances of the COVID-19 pandemic. It did not set a precedent for the organization of similar meetings under the Convention in the future. At the informal session, the Subsidiary Body had already considered six of the eight topics on the agenda, in a manner similar to the first reading of pre-session documents at a formal meeting of the Subsidiary Body. At that time, participants had been encouraged to focus their interventions on the draft recommendations set out in the pre-session documents, but no negotiations had taken place and no formal substantive outcomes or conference room papers had been produced.

26. While all Parties maintained their right to take the floor and make statements at the current meeting, the Chair urged participants not to repeat the points already made during the informal session and to only add new points in their statements, except for agenda items 8 and 9, which had not been considered at the informal session. The statements made at the informal session would be taken into account in the preparation of any conference room papers or non-papers produced for the current meeting. No final documents would be considered or adopted at the present virtual sessions of the meeting (part I); that would be deferred to later physical sessions of the meeting (part II), to be organized back-to-back with either a physical meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework or the fifteenth meeting of the Conference of the Parties, unless otherwise decided by the bureaux of the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties. The Chair would report to the Co-Chairs of the Working Group on items needed for the post-2020 process.

A. Adoption of the agenda

27. At the first plenary session of part I of the meeting, on 3 May 2021, the Subsidiary Body adopted the following agenda on the basis of the provisional agenda prepared by the Executive Secretary in consultation with the Bureau (CBD/SBSTTA/24/1):

1. Opening of the meeting.
2. Organizational matters: election of officers and adoption of the agenda and organization of work.
3. Post-2020 global biodiversity framework.

4. Synthetic biology.
5. Risk assessment and risk management of living modified organisms.
6. Marine and coastal biodiversity.
7. Biodiversity and agriculture.
8. Programme of work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.
9. Biodiversity and health.
10. Invasive alien species.
11. Other matters.
12. Adoption of the report.
13. Closure of the meeting.

28. At the second plenary session of part II of the meeting, on 14 March 2022, the Chair recalled that, at part I of the meeting, the Subsidiary Body had adopted the agenda on the basis of the provisional agenda (CBD/SBSTTA/24/1).

B. Election of officers

29. In accordance with the elections held at the twenty-second and twenty-third meetings of the Subsidiary Body, the Bureau for the twenty-fourth meeting comprised the following members:

Chair: Mr. Hesiquio Benítez Díaz (Mexico)
 Vice-Chairs: Ms. Alison McMorrow (Australia)
 Ms. Senka Barudanović (Bosnia and Herzegovina)
 Ms. Marina Von Weissenberg (Finland)
 Ms. Kongchay Phimmakong (Lao People's Democratic Republic)
 Mr. Larbi Sbai (Morocco)
 Ms. Gwendalyn Sisor (Palau)
 Mr. Adams Toussaint (Saint Lucia)
 Ms. Marie-Mae Muzungaile (Seychelles)
 Mr. Volodymyr Domalishnets (Ukraine)

Substitute Vice-Chairs for the Nagoya Protocol:

Ms. Helena Jeffery Brown (Antigua and Barbuda) for Saint Lucia
 Ms. Tatsiana Lipinskaya (Belarus) for Bosnia and Herzegovina and Ukraine
 Mr. Moustafa M.A. Fouda (Egypt) for Morocco

Substitute Vice-Chair for the Cartagena Protocol and the Nagoya Protocol:

Mr. Gaute Voigt-Hanssen (Norway) for Australia

30. At the first plenary session of part I of the meeting, on 3 May 2021, the Subsidiary Body was reminded that it needed to nominate new members to the Bureau to replace the outgoing members from Finland, Morocco, the Lao People's Democratic Republic and Ukraine. Depending on the outcome of those nominations, it might also be necessary to nominate substitute members of the Bureau that were also Parties to the Protocols to the Convention. As the current virtual sessions of the meeting (part I) of the Subsidiary Body would not have a closing session, and new Bureau members only took office after the closure of the meeting of the Subsidiary Body, it was agreed that the Subsidiary Body would elect the new members of the Bureau during the resumed part of the meeting.

31. Following a recommendation from the Bureau, Ms. Senka Barudanović (Bosnia and Herzegovina) was elected Rapporteur for the meeting.

32. At the invitation of the Chair, the Rapporteur made a statement on behalf of all the participants in the meeting. She congratulated the Chair of the Subsidiary Body, the members of the Bureau and the Executive Secretary and her team for the high quality of the preparations for the meeting. She expressed confidence that the deliberations would be productive and thanked the Chair for giving her the opportunity to speak on behalf of all the participants.

33. At the second plenary session of part II of the meeting, on 14 March 2022, the Chair recalled that new members of the Bureau had to be nominated to replace the outgoing members from Finland, Lao People's Democratic Republic, Mexico, Morocco and Ukraine, for a term commencing at the end of the twenty-fourth meeting and ending at the close of the twenty-sixth meeting. He also recalled that depending on the outcome of those nominations it might be necessary to nominate substitute members to substitute for those members from countries that were not Parties to the Protocols to the Convention.

34. The Chair added that his own term of office would end with the closure of fifteenth meeting of the Conference of the Parties, when a new Chair would be elected. In line with established practice, nominations would be received for the position of Chair from the Central and Eastern European region. He also noted that Ms. Senka Barudanović, having been elected as rapporteur at part I of the twenty-fourth meeting, would continue in that role for part II of the meeting.

35. At the seventh plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body elected the following officers, for a term commencing at the end of the twenty-fourth meeting and expiring at the end of the twenty-sixth meeting, to replace the members from Lao People's Democratic Republic, Mexico, Morocco and Ukraine: Mr. Jan Plesnik (Czech Republic), Mr. Jean Bruno Mikissa (Gabon), Mr. Bilal Qteshat (Jordan), and Ms. Ana Teresa Lecaros Terry (Peru). Ms. Marina von Weissenberg (Finland) was re-elected to the Bureau.

36. The representative of Georgia paid tribute to Mr. Volodymyr Domalishnets (Ukraine), an outgoing member of the Bureau, and said that her region would nominate a candidate for Chair of the Subsidiary Body at part II of the fifteenth meeting of the Conference of the Parties.

37. The representative of the Russian Federation, asking that the statement be reflected in the report, expressed disappointment with the candidate for the Central and Eastern European region and said that she was unable to support or agree to the election of the representative of the Czech Republic, a candidate from the European Union, as she doubted that the representative of a country that had imposed illegal, unilateral sanctions on Russia could be considered as friendly or would represent the interests or position of the Russian Federation in the governing bodies of the Convention independently and without coordinating with the European Union. She asserted that the election had shattered the traditions, practices and customs, established in the region since 2008, and the more than 20 years of cooperation with five Central Asian countries; which for the first time, she said, had been excluded from voting. In her view, one group of countries, the European Union, now had two seats in the Bureau of the Subsidiary Body, which was a gross violation of the balance of the representation and rights of other countries and regions. She had serious concerns about a possible paralysis of work within the region and its inability to develop a unified position, as well as further restrictions on the use, within the region, of an official language of the Convention, namely the Russian language, thereby undermining the principle of multilingualism at the United Nations. She called for the current and new members of the Bureau to strictly observe the following requirements: the continuation of the usual practice of participation of Central Asian countries in the work of the region; the organization of communication with representatives of the region in Russian; prior agreement and written consent of the Russian delegation for any statement be made on behalf of the region; and timely and full disclosure of the work of the Bureau of the Subsidiary Body. In closing, she said that she looked forward to working with stakeholders to restore a fair system of elections to the governing bodies of the convention.

C. Organization of work

38. At the first plenary session of part I of the meeting, on 3 May 2021, the Chair drew the attention of the meeting to the annotated provisional agenda (CBD/SBSTTA/24/1/Add.1) and the scenario note for part I of the meeting (CBD/SBSTTA/24/1/Add.2). While all agenda items would be addressed, priority at part I of the meeting would be given to elements directly related to the post-2020 process to enable the Open-ended

Working Group on the Post-2020 Global Biodiversity Framework, and its Co-Chairs, to develop a high-quality global biodiversity framework at the third meeting of the Working Group.

39. Taking into account the extraordinary circumstances prevailing due the ongoing pandemic situation and recognizing the complexities involved in holding the meeting in a virtual setting, it was indicated in the scenario note (CBD/SBSTTA/24/1/Add.2) that finalization of the recommendations of the Subsidiary Body would be deferred to a later date at a physical meeting organized back-to-back with a physical meeting of the Working Group on the Post-2020 Global Biodiversity Framework or the fifteenth meeting of the Conference of the Parties, unless otherwise decided by the Bureau. Owing to the suspension of the meeting, the last three items of the agenda, namely items 11 (other matters), 12 (adoption of the report), and 13 (closure of the meeting), were deferred to a resumed session of the meeting that would be held at a later date.

40. The Subsidiary Body agreed to the organization of work for part I of the meeting as set out in the annotated provisional agenda (CBD/SBSTTA/24/1/Add.1) and the scenario note for part I of the meeting (CBD/SBSTTA/24/1/Add.2). The Chair said that he would chair all plenary sessions except the session on agenda item 9, on biodiversity and health, would be chaired by Ms. Helena Jeffery Brown (Antigua and Barbuda).

41. The Chair then explained how contact groups would operate during part I of the meeting. Contact groups would meet for sessions of up to three hours and multiple sessions could be scheduled each day provided that different contact groups did not meet in parallel. The sessions would be open to representatives of all Parties, other Governments and observers. The usual practice would apply to participation of observers: at the discretion of the co-chairs of the contact groups, they might be given the floor after Parties had spoken and any substantive proposals made by them would need to be supported by at least one Party for it to be taken up by the contact group. The participants were encouraged to use the chat function of the web-based Interactio conference system to indicate such support rather than by requesting the floor. The contact groups would only be accessible through the Interactio conference system, and, in order to maintain the integrity of that system, Parties and other accredited organizations were asked to limit themselves to one or two speakers. The remaining members of delegations could observe the discussion and speakers could be exchanged at any time. All other participants could join as viewers. Following the usual practice, the deliberations could not be recorded or shared through social media.

42. At the second plenary session of part II of the meeting, on 14 March 2022, the Subsidiary Body agreed to the organization of work set out in the scenario note for part II of the meeting (CBD/SBSTTA/24/1/Add.2/Rev.2).

43. Subsequently, the organization of work was modified to include a joint plenary stocktaking session of the Subsidiary Body on Scientific, Technical and Technological Advice, the Subsidiary Body on Implementation and the Working Group on the Post-2020 Global Biodiversity Framework. During the joint plenary stocktaking session, which took place on 23 March 2022 and was the fourth plenary session of part II of the twenty-fourth meeting of the Subsidiary Body, the Chair reported on the progress made to date on the various items on the agenda for the meeting and explained the interlinkages between the different items on the agendas of the three bodies.

ITEM 3. POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

44. The Subsidiary Body considered agenda item 3 at the first plenary session of part I of the meeting, on 3 May 2021. In considering the item, the Subsidiary Body had before it notes by the Executive Secretary on: (a) the fifth edition of the *Global Biodiversity Outlook* and its summary for policymakers (CBD/SBSTTA/24/2); (b) scientific and technical information to support the review of the updated goals and targets, and related indicators and baselines of the post-2020 global biodiversity framework (CBD/SBSTTA/24/3); (c) the proposed indicators and monitoring approach for the post-2020 global biodiversity framework (CBD/SBSTTA/24/3/Add.1); (d) scientific and technical information to support the review of the proposed goals and targets in the updated zero draft of the post-2020 global biodiversity framework, which had been updated following a technical peer-review process (CBD/SBSTTA/24/3/Add.2/Rev.1). The official pre-session documents were supported by a number of information documents: (a) synthesizing the scientific evidence to inform the development of the post-2020

global biodiversity framework (CBD/SBSTTA/24/INF/9); (b) annotations for terms and concepts used in the language of interim updated post-2020 goals and targets (CBD/SBSTTA/24/INF/11); (c) the linkages between the post-2020 global biodiversity framework and 2030 Agenda for Sustainable Development (CBD/SBSTTA/24/INF/12); (d) indicators for the post-2020 global biodiversity framework (CBD/SBSTTA/24/INF/16); (e) development of a post-2020 Global Strategy for Plant Conservation as a component of the global biodiversity framework (CBD/SBSTTA/24/INF/20); (f) detailed scientific and technical information to support the review of the proposed goals and targets in the updated zero draft of the post-2020 global biodiversity framework (CBD/SBSTTA/24/INF/21); and (g) the report of the second consultation workshop of biodiversity-related conventions on the post-2020 global biodiversity framework (Bern II) (CBD/SBSTTA/24/INF/27).

45. Introducing the item, the Chair recalled that the topic had been considered during the informal session, on 17 and 18 February 2021, at which time representatives of 48 Parties and regional groups and 18 observers had made statements. The Secretariat had also received written statements from 1 other Party and 20 other observers.⁹²

46. Regional statements were made by representatives of Argentina (on behalf of the Latin American and Caribbean Group) and South Africa (on behalf of the African Group).

47. Additional statements were made by representatives of Argentina, Armenia, Bangladesh, Belgium, Brazil, Canada, Colombia, Costa Rica, Cuba, the Democratic Republic of the Congo, Ecuador, the European Union, Finland, France, Indonesia, the Islamic Republic of Iran, Japan, Jordan, Malaysia, Maldives, Mexico, Morocco, the Netherlands, Norway, Portugal, the Republic of Korea, Spain, Sweden, Switzerland, Uganda and the United Kingdom of Great Britain and Northern Ireland.

48. The Subsidiary Body resumed its consideration of the item during the second plenary session of part I of the meeting, on 4 May 2021.

49. Statements were made by representatives of Cambodia, Cameroon, China, Denmark, Ethiopia, India, Peru and Senegal.

50. Statements were also made by representatives of the Advisory Committee of Subnational Governments for Biodiversity (coordinated by Regions4 and the government of Quebec) (also on behalf of the European Committee of the Regions, the Group of Leading Subnational Governments toward Aichi Biodiversity Targets, ICLEI – Local Governments for Sustainability, and on behalf of the Edinburgh Process partners), the CBD Alliance, the CBD Women’s Caucus, the Global Youth Biodiversity Network (GYBN), the International Indigenous Forum on Biodiversity (IIFB) and the Wildlife Conservation Society (also on behalf of the Born Free Foundation, the Center for Biological Diversity, the David Shepherd Wildlife Foundation, Defenders of Wildlife, the Environmental Investigation Agency, Fondation Franz Weber, the International Fund for Animal Welfare, the Natural Resources Defense Council, Pro Wildlife and the World Federation for Animals).

51. In addition to the statements by observers presented orally, statements by the following observer organizations could not be delivered due to limited time but were made available on the meeting web page: the Alliance of Bioversity International and the International Centre for Tropical Agriculture, Coastal Oceans Research and Development in the Indian Ocean (CORDIO), the Economic Commission for Latin America and the Caribbean, the Food and Agriculture Organization of the United Nations (FAO), Future Earth, the German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig, the Global Forest Coalition (GFC), Griffith University, the Group on Earth Observations Biodiversity Observation Network (GEO BON), the International Coral Reef Initiative (ICRI), the International Fertilizer Association (IFA), the International Petroleum Industry Environmental Conservation Association (IPIECA), the International Planning Committee for Food Sovereignty (IPC), the International Union for Conservation of Nature and Natural Resources (IUCN), Island Conservation, the Mediterranean Protected Areas Network (MedPAN), New Wind Association, the Office of the United Nations High Commissioner for Human

⁹² The report on the informal session is available at <https://www.cbd.int/conferences/sbstta24-sbi3/sbstta-24-prep-03/documents>.

Rights, Public Research and Regulation Initiative (PRRI), the secretariat of the Convention on the Conservation of Migratory Species of Wild Animals, the secretariat of the Framework Convention on the Protection and Sustainable Development of the Carpathians, the secretariat of the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Environment Programme (UNEP), United Nations University, the Western Ghats Hotspot Conservation Forum, the Wildlife Conservation Society (WCS), the World Business Council for Sustainable Development (WBCSD) and the World Heritage Centre.

A. Fifth edition of the *Global Biodiversity Outlook*

52. Following the exchange of views at the second plenary session of part I of the meeting, on 4 May 2021, the Chair said that he would prepare a revised text on the elements of the agenda item related to the fifth edition of the *Global Biodiversity Outlook*, taking into account the views expressed orally by the Parties or supported by them and the comments received in writing, during the informal session in February and at the current meeting.

53. At the fifth plenary session of part I of the meeting, on 25 May 2021, the Subsidiary Body considered the draft recommendation submitted by the Chair. Following an exchange of views, the Subsidiary Body approved the draft recommendation, as orally amended, as draft recommendation CBD/SBSTTA/24/L.2, for formal adoption at a later stage.

54. At the seventh plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body adopted draft recommendation CBD/SBSTTA/24/L.2 as recommendation 24/1. The text of the recommendation, as adopted, is contained in section I of the present report.

B. Technical and scientific aspects of the goals and targets of the post-2020 global biodiversity framework and suggested monitoring framework

55. Following the exchange of views at the second plenary session of part I of the meeting, on 4 May 2021, the Chair established a contact group co-chaired by Ms. Anne Teller (European Union) and Mr. Jorge Murillo (Colombia). The mandate of the group was to work on the scientific and technical review of goals and targets of the post-2020 global biodiversity framework on the basis of document CBD/SBSTTA/24/3/Add.2/Rev.1 and the issues and recommendations related to the monitoring framework on the basis of documents CBD/SBSTTA/24/3 and Add.1, for which a non-paper would be developed.

56. At the fifth plenary session of part I of the meeting, on 25 May 2021, the co-chairs of the contact group reported to the Subsidiary Body on the work of the group.

57. The co-chairs of the contact group reported that, with respect to the scientific and technical review of goals and targets in the updated zero draft of the post-2020 global biodiversity framework and general elements of organization of the monitoring framework, the contact group co-chairs had opened an in-session online survey on headline indicators. The co-chairs had prepared a text (“Co-chairs’ text on item 3”), taking into account the discussions in the contact group and the views expressed in plenary and during the February informal session of the Subsidiary Body, as well as the survey results; the co-chairs’ text was accompanied by an annex showing the results of the survey graphically for each headline indicator. The full comments provided by parties in the survey were compiled in information document CBD/SBSTTA/24/INF/29. The understanding was that the Chair of the Subsidiary Body would forward the contact group co-chairs’ text on item 3 to the Co-Chairs of the Working Group on the Post-2020 Global Biodiversity Framework, to be taken into account in the preparation of the first draft of the post-2020 global biodiversity framework, together with document CBD/SBSTTA/24/3/Add.2/Rev.1 and all original statements.

58. Similarly, the Co-Chairs of the Working Group, with the support of the Secretariat, would use the survey results, along with the more general views expressed, to revise the monitoring framework.

59. With respect to issues and recommendations related to the monitoring framework for the post-2020 global biodiversity framework, the outcome of the discussions in the contact group had been captured in a draft recommendation submitted for the consideration of the Parties.

60. Following the report of the contact group co-chair, statements were made by representatives of Argentina, Belgium, Brazil, Canada, Colombia, Denmark, France, Malaysia, Mexico, Morocco, Norway, Sweden, Switzerland, Uganda and the United Kingdom.

61. It was noted that the Co-Chairs of the Working Group, with the support of the Executive Secretary, would further update the monitoring framework as necessary to align it with the outcomes of the third meeting of the Working Group, for subsequent consideration at the fifteenth meeting of the Conference of the Parties.

62. The Subsidiary Body resumed its consideration of the draft recommendation at the sixth plenary session of part I of the meeting, on 26 May 2021. Following an exchange of views, the Subsidiary Body approved the draft recommendation, as orally amended, as draft recommendation CBD/SBSTTA/24/L.3, for formal adoption at a later stage.

63. At the second plenary session of part II of the meeting, on 14 March 2022, the Subsidiary Body agreed to reconvene the contact group established during part I of the meeting, to be co-chaired by Mr. Andrew Stott (United Kingdom) and Mr. Alfred Oteng-Yeboah (Ghana). As a basis for its discussion, the contact group had before it a non-paper on the proposed monitoring approach for the post-2020 global biodiversity framework, prepared by the Secretariat on the basis of the discussions during part I of the third meeting of the Subsidiary Body, taking into account also views expressed at part I of the third meeting of the Subsidiary Body on Implementation and part I of the third meeting of the Working Group on the Post-2020 Global Biodiversity Framework.

64. At the third plenary session of part II of the meeting, on 19 March 2022, one of the co-chairs of the contact group reported that the contact group had met and discussed various indicators to capture the key elements of the global biodiversity framework, including targets 1 to 6 and 9 to 19, and would continue to discuss the remaining targets and goals at its next meeting, after which it would develop a text for the consideration of the Subsidiary Body.

65. At the fifth plenary session of part II of the meeting, on 23 March 2022, a co-chair of the contact group reported on the progress made and said that the group would meet again to consider outstanding issues.

66. At the sixth plenary session of part II of the meeting, on 25 March 2022, a co-chair of the contact group reported that the contact group had essentially completed its work, although some text remained in brackets.

67. The Subsidiary Body then considered a draft recommendation submitted by the Chair on the proposed monitoring framework and, following an exchange of views, approved it, as orally amended, as draft recommendation CBD/SBSTTA/24/L.10, for formal adoption by the Subsidiary Body.

68. At the seventh plenary session of part II of its twenty-fourth meeting, on 27 March 2022, the Subsidiary Body adopted draft recommendation CBD/SBSTTA/24/L.10, as orally amended, as recommendation 24/2.⁹³ The text of the recommendation, as adopted, is contained in section I to the present report.

69. The representative of Brazil, asking that his remarks be reflected in the report, expressed concern that a subsidiary body was tasking the Executive Secretary with work that had budgetary consequences and said that should not become a common practice.

70. At the seventh plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body also adopted draft recommendation CBD/SBSTTA/24/L.3, as orally amended, as recommendation 24/2. The text of the recommendation, as adopted, is contained in section I to the present report.

71. The representative of the European Union, asking that her remarks be reflected in the report, expressed deep disappointment that the Parties had not supported the Chair despite his best efforts to facilitate the work of the Conference of the Parties on an important issue, and that despite all the efforts in

⁹³ L.3 and L.10 were combined into a single recommendation.

the contact groups, the Parties had challenged the advice of the Chairs of the two subsidiary bodies and the Co-Chairs of the Working Group on the Post-2020 Global Biodiversity Framework to park certain paragraphs because of the urgent need to align the work of the three bodies. In her view, the issue was one of trust, which seemed to be lacking at the current meeting. She regretted that the Subsidiary Body appeared to be taking two steps back for every step it took forward.

72. At the eighth plenary session of part II of the meeting, on 27 March 2022, the representative of Colombia, asking that his remarks be reflected in the report, expressed deep concern regarding the adoption of the texts without the removal of extraneous text or lifting of brackets.

ITEM 4. SYNTHETIC BIOLOGY

73. The Subsidiary Body considered agenda item 4 at the third plenary session of part I of the meeting, on 23 May 2021. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on synthetic biology (CBD/SBSTTA/24/4/Rev.1), including a suggested recommendation. It also had before it, as information documents: (a) a list of references on synthetic biology (CBD/SBSTTA/24/INF/6), (b) an update of the *Technical Series on Synthetic Biology* (CBD/SBSTTA/24/INF/19), (c) the report of the Ad Hoc Technical Expert Group on Synthetic Biology (CBD/SYNBIO/AHTEG/2019/1/3), (d) a synthesis of submissions on synthetic biology (CBD/SYNBIO/AHTEG/2019/1/INF/1) and (e) a synthesis of discussions of the Online Forum on Synthetic Biology (CBD/SYNBIO/AHTEG/2019/1/INF/2).

74. Introducing the item, the Chair recalled that the topic had been considered during the informal session, held on 18 and 19 February 2021, at which time representatives of 31 Parties, 2 regional groups and 8 observers had made statements. The Secretariat had also received written statements from 1 other Party and 2 other observers.⁹⁴

75. Statements were made by the representatives of Argentina, Austria, Brazil, Chile, Colombia, Cuba, Ecuador, the European Union, Finland, France, Germany, Indonesia, Italy, Malaysia, Mexico, Morocco, Peru, the Republic of Korea, South Africa, Switzerland and Uganda.

76. Statements were also made by representatives of the CBD Alliance and IIFB (also on behalf of the Indigenous Women's Biodiversity Network).

77. In addition to the statements by observers presented orally, written statements were received, and made available on the meeting web page from: the CBD Women's Caucus, the German Foundation on Future Farming (also on behalf of Save Our Seeds), GYBN, the Institute on Ethics and Policy for Innovation at McMaster University and TWN.

78. Following the exchange of views, the Chair established a contact group co-chaired by Ms. Ntakadzeni Tshidada (South Africa) and Mr. Werner Schenkel (Germany). The mandate of the contact group was to work on the process for horizon scanning described in the annex to the draft recommendation contained in document (CBD/SBSTTA/24/4/Rev.1). In setting out the mandate of the contact group, the Chair specified that, while there had been divergent views on whether synthetic biology should be considered a new and emerging issue, the Parties had agreed, in decision 14/19, that horizon scanning of new technological developments in synthetic biology was needed, and that the contact group should therefore focus its work on the issue of horizon scanning only.

79. At the sixth plenary session of part I of the meeting, on 26 May 2021, the Chair said that, after considering the diverse views, he had decided to convene a group of friends of the chair, composed of Argentina, Australia, Austria, Brazil, Canada, Colombia, Ethiopia, the European Union, Finland, Japan, Mexico and Norway, to help him to work on a text proposal on the relationship between synthetic biology and the criteria on new and emerging issues. He requested one of the members of the Bureau of the Subsidiary Body, Ms. Helena Jeffery Brown (Antigua and Barbuda), to facilitate the group.

⁹⁴ The report on the informal session is available at <https://www.cbd.int/conferences/sbstta24-sbi3/sbstta-24-prep-03/documents>.

80. The Subsidiary Body resumed its consideration of the agenda item at the eighth plenary session of part I of the meeting, on 8 June 2021.

81. The facilitator of the friends of the chair group, which had in the end been composed of Argentina, Australia, Austria, Brazil, Canada, Colombia, the European Union, Finland, Japan, Norway and South Africa, reported on the work of that group, and one of the co-chairs of the contact group reported on the work of the contact group. The Subsidiary Body then considered a draft recommendation prepared by the Chair, which reflected the outcomes of the discussions in the two groups.

82. During the session, several representatives signalled connectivity issues that they felt prevented them from participating adequately in the discussion, and it was noted that some Parties had never been able to participate or express their views, which was unacceptable at such a multilateral meeting.

83. Statements were made by representatives of Argentina, Brazil, Canada, Finland, Germany, Mexico, South Africa, Switzerland and Togo.

84. The Subsidiary Body resumed its consideration of the agenda item at the ninth plenary session of part I of the meeting, on 9 June 2021. Following an exchange of views, the Subsidiary Body approved the draft recommendation, as orally amended, as draft recommendation CBD/SBSTTA/24/L.5, for formal adoption at a later stage.

85. At the seventh plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body adopted recommendation CBD/SBSTTA/24/L.5 as recommendation 24/4. The text of the recommendation, as adopted, is contained in section I to the present report.

ITEM 5. RISK ASSESSMENT AND RISK MANAGEMENT OF LIVING MODIFIED ORGANISMS

86. The Subsidiary Body considered agenda item 5 at the fourth plenary session of part I of the meeting, on 24 May 2021. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on risk assessment and risk management (CBD/SBSTTA/24/5), including a suggested recommendation. It also had before it, as information documents: (a) a list of bibliographic references on engineered gene drives and living modified fish (CBD/SBSTTA/24/INF/7); (b) a synthesis of relevant information from the fourth national reports on the implementation of the Cartagena Protocol on Biosafety (CBD/SBSTTA/24/INF/13); (c) a study on risk assessment: application of annex I of decision CP-9/13 to living modified fish (CBD/CP/RA/AHTEG/2020/1/3); (d) a study on risk assessment: application of annex I of decision CP-9/13 to living modified organisms containing engineered gene drives (CBD/CP/RA/AHTEG/2020/1/4); (e) the report of the Ad Hoc Technical Expert Group on Risk Assessment (CBD/CP/RA/AHTEG/2020/1/5); (f) a synthesis of submissions on experiences, challenges and needs regarding risk assessment of living modified organisms containing engineered gene drives and living modified fish (CBD/CP/RA/AHTEG/2020/1/INF/1); and (g) a synthesis of the interventions from the Open-ended Online Forum (CBD/CP/RA/AHTEG/2020/1/INF/2).

87. Introducing the item, the Chair recalled that the topic had been considered during the informal session, on 19 and 24 February 2021, at which time interventions had been made by 21 Parties, 2 non-Parties, 2 regional groups and 5 observers, with written statements also received from 3 other Parties and 2 other observers.⁹⁵

88. Statements were made by the representatives of Austria, Belarus, Brazil, Cuba, the European Union, Finland, France, Germany, Indonesia, Malaysia, Mexico, Morocco, Peru, the Republic of Korea, South Africa and Switzerland.

89. In addition to statements presented orally by Parties, a written statement by Portugal was made available on the meeting web page.

⁹⁵ The report on the informal session is available at <https://www.cbd.int/conferences/sbstta24-sbi3/sbstta-24-prep-03/documents>.

90. Statements were also made by representatives of the CBD Alliance, the CBD Women's caucus, IIFB, Target Malaria and the National Institute of Health.
91. In addition to statements presented orally by observers, a written statement by IPC was made available on the meeting web page.
92. Following the exchange of views, the Chair established a contact group co-chaired by Ms. Ntakadzeni Tshidada (South Africa) and Mr. Werner Schenkel (Germany), with the mandate to further consider issues related to process to develop additional voluntary guidance materials on risk assessment of living modified organisms containing engineered gene drives, for which a non-paper would be developed.
93. At the ninth plenary session of part I of the meeting, on 9 June 2021, one of the co-chairs of the contact group reported to the Subsidiary Body on the work of the group. The group had discussed most of the paragraphs, and the annex, of a non-paper on risk assessment, but had still not resolved issues related to paragraph 1 (c) of the terms of reference regarding the scope of additional voluntary guidance materials on organisms containing engineered gene drives, or who should develop a first draft of the additional voluntary guidance materials. The group had reached a common understanding to develop additional voluntary guidance materials on organisms containing engineered gene drives and to not, at the current stage, develop additional voluntary guidance materials on living modified fish.
94. Following an exchange of views, the Subsidiary Body approved the draft recommendation, as orally amended, as draft recommendation CBD/SBSTTA/24/L.6, for formal adoption at a later stage.
95. At the seventh plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body adopted recommendation CBD/SBSTTA/24/L.6 as recommendation 24/5. The text of the recommendation, as adopted, is contained in section I to the present report.

ITEM 6. MARINE AND COASTAL BIODIVERSITY

96. The Subsidiary Body considered agenda item 6 at the second plenary session of part I of the meeting, on 4 May 2021. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on marine and coastal biodiversity (CBD/SBSTTA/24/6). It also had before it, as information documents: (a) the report of the Expert Workshop to Identify Options for Modifying the Description of Ecologically or Biologically Significant Marine Areas and Describing New Areas (CBD/EBSA/WS/2020/1/2); (b) the report of the Thematic Workshop on Marine and Coastal Biodiversity for the Post-2020 Global Biodiversity Framework (CBD/POST2020/WS/2019/10/2); (c) a compilation of submissions on experiences in the implementation of marine spatial planning (CBD/SBSTTA/24/INF/1); (d) a synthesis of experiences to achieve Aichi Biodiversity Target 10 for coral reefs and closely associated ecosystems (CBD/SBSTTA/24/INF/2); (e) a synthesis of submissions on experiences for the implementation of the voluntary specific workplan on biodiversity in cold-water areas within the jurisdictional scope of the Convention on Biological Diversity (CBD/SBSTTA/24/INF/3); (f) a technical paper updating *CBD Technical Series No. 83* (CBD/SBSTTA/24/INF/4); (g) the draft CBD Technical Series on anthropogenic underwater noise (CBD/SBSTTA/24/INF/5); (h) the report of the Expert Meeting on Other Effective Area-based Conservation Measures in the Marine Capture Fishery Sector (CBD/SBSTTA/24/INF/10); (i) the available monitoring frameworks and information to support monitoring of progress towards goals and targets of the post-2020 global biodiversity framework with respect to marine and coastal biodiversity (CBD/SBSTTA/24/INF/23); (j) the report on regional seas biodiversity under the post-2020 global biodiversity framework (CBD/SBSTTA/24/INF/24); and (k) *CBD Technical Series No. 87: Assessing Progress towards Aichi Biodiversity Target 6 on Sustainable Marine Fisheries*.
97. Introducing the item, the Chair recalled that the topic had been considered during the informal session, on 24 and 25 February 2021, at which time interventions had been made by 32 Parties and regional groups and 14 observers, with written statements also received from 4 other Parties and 5 other observers.⁹⁶

⁹⁶ The report on the informal session is available at <https://www.cbd.int/conferences/sbstta24-sbi3/sbstta-24-prep-03/documents>.

98. Statements were made by representatives of Argentina, Bangladesh, Belgium, Brazil, Cameroon, Chile, China, Colombia, Denmark, France, Indonesia, the Islamic Republic of Iran, Malaysia, Maldives, Morocco, Peru Portugal, the Republic of Korea, Senegal, South Africa, Spain, Sweden and the United Kingdom.

99. In addition to statements presented orally by Parties, written statements by Israel, Japan, Mexico and Samoa were made available on the meeting web page.

100. Statements by the following observer organizations could not be delivered due to limited time but were made available on the meeting web page: BirdLife International, the CBD Women's Caucus, the Division for Ocean Affairs and the Law of the Sea of the Office of Legal Affairs of the United Nations, FAO, GEO BON, IIFB, the National Geographic Society, UNEP, the United Nations University (UNU), the University of Cambridge Conservation Leadership Alumni, and the Wildlife Conservation Society.

101. Following the exchange of views, the Chair established a contact group co-chaired by Ms. Marie-May Muzungaile (Seychelles) and Mr. Matthias Steitz (Germany), with the mandate to focus on annexes VI, VIII, XI and XIII of the draft recommendations contained in document CBD/SBSTTA/24/6.

102. During the ninth plenary session of part I of the meeting, Parties highlighted the importance of marine issues and of the need to ensure they are fully reflected in the post-2020 global biodiversity framework.

103. At the ninth session of part I of the meeting, on 9 June 2021, the co-chairs of the contact group reported on the group's deliberations. He explained that those discussions were reflected in document CBD/SBSTTA/24/CRP.4, together with other annexes and recommendations that the contact group had not addressed. The texts on which the contact group had been asked to focus appeared as annexes VI and X in the document.

104. Following the co-chair's report, the Chair said that, owing to a lack of time, consideration of the draft recommendations set out in documents CBD/SBSTTA/24/CRP.2 and CBD/SBSTTA/24/CRP.4, which reflected statements made and submissions received during the informal session and at the current meeting, and the outcome of discussions in the contact group, would be deferred to part II of the meeting, to be held in person at a later date.

105. At the second plenary session of part II of the meeting, on 14 March 2022, the Subsidiary Body agreed to reconvene the contact group established during part I of the meeting to continue discussions on the two draft recommendations, with Mr. Adam van Opzeeland (New Zealand) replacing Mr. Matthias Steitz (Germany) as co-chair.

A. Conservation and sustainable use of marine and coastal biodiversity

106. At the fifth plenary session of part II of the meeting, on 23 March 2022, the Subsidiary Body considered a draft recommendation on conservation and sustainable use of marine and coastal biodiversity, submitted by the Chair.

107. Statements were made by the representatives of Brazil, Canada, Chile, China, Colombia, Denmark, France, Italy, Jamaica, Morocco, Norway and the United Kingdom.

108. At the sixth plenary session of part II of the meeting, on 25 March 2022, the Subsidiary Body continued its discussion under the agenda sub-item.

109. Statements were made by the representatives of Chile, France, Jamaica and the Russian Federation.

110. The representative of Switzerland expressed his concern that there was not enough time to give adequate consideration to issues of marine and coastal biodiversity at the present meeting given the importance of focusing on the post-2020 global biodiversity framework, which was being developed concurrently by the Working Group on the Post-2020 Global Biodiversity Framework. He suggested sending the recommendation as currently drafted directly to the Conference of the Parties.

111. Responding to concerns expressed by several representatives that the Parties had been unable to make substantive interventions on the draft recommendation or consider changes to the text, the representative of Switzerland suggested that Parties be allowed to make submissions of additional text, which would be compiled and then considered by the Conference of the Parties. He specified that his suggestion was not meant to set a precedent for the future but was a response to the extraordinary circumstances resulting from the limitations on in-person meetings caused by the COVID-19 pandemic, the need to urgently negotiate the post-2020 global biodiversity framework and the need to accommodate representatives who had participated in the recent fourth session of the intergovernmental conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.

112. The representative of Turkey agreed with the proposal of the representative of Switzerland, but expressed her concern at the lack of discussion of the recommendation, which meant that she would be unable to advise her Government on what position to take, and she wished that noted in the report of the meeting.

113. The representative of Denmark, supported by the representatives of Chile and Colombia, said that Denmark was deeply concerned with how marine and coastal biodiversity was being handled during the meeting and that it was unfortunate that the agenda item was not being discussed, as it was directly relevant to the post-2020 global biodiversity framework. She reluctantly agreed to the proposal and the Chair said that her reluctance would be noted in the report of the meeting.

114. The representative of Chile, asking that his remarks be reflected in the report, said that the time devoted to the agenda item had been severely constrained and she was supporting the proposed way forward on the understanding that sufficient time would be allocated for discussion of the issue during part II of the fifteenth meeting of the Conference of the Parties.

115. Following the discussion, the draft recommendation, as orally amended, was approved as draft recommendation CBD/SBSTTA/24/L.12, for formal adoption by the Subsidiary Body, and it was agreed that further text proposals submitted to the Secretariat on 25 March 2022 would be compiled and made available.⁹⁷

116. At the eighth plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body adopted recommendation CBD/SBSTTA/24/L.12, as orally amended, as recommendation 24/9. The text of the recommendation, as adopted, is contained in section I to the present report.

B. Ecologically or biologically significant marine areas

117. At the fifth plenary session of part II of the meeting, on 23 March 2022, a co-chair of the contact group reported on the progress made on the review of the text on ecologically or biologically significant marine areas. She said that not all issues had been resolved and she suggested that the remaining issues should be addressed by the Subsidiary Body in a plenary session. The Chair said that a revised text would be prepared reflecting the work of the contact group.

118. At the sixth plenary session of part II of the meeting, on 25 March 2022, the Subsidiary Body considered a revised draft recommendation on ecologically or biologically significant marine areas, submitted by the Chair. For the reasons set out in paragraphs 110 and 111 of the present report, the draft recommendation was approved, as draft recommendation CBD/SBSTTA/24/L.11, for formal adoption by the Subsidiary Body, and it was agreed that further text proposals submitted to the Secretariat on 25 March 2022 would be compiled and made available.⁹⁸

119. At the seventh plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body considered recommendation CBD/SBSTTA/24/L.11.

⁹⁷ The compiled proposals are available in [CBD/SBSTTA/24/INF/42](#).

⁹⁸ The compiled proposals are available in [CBD/SBSTTA/24/INF/41](#).

120. Statements were made by the representatives of Malaysia, Seychelles and Turkey.

121. At the eighth plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body adopted recommendation CBD/SBSTTA/24/L.11, as orally amended, as recommendation 24/10. The text of the recommendation, as adopted, is contained in section I to the present report.

ITEM 7. BIODIVERSITY AND AGRICULTURE

122. The Subsidiary Body considered agenda item 7 at the fourth plenary session of part I of the meeting, on 24 May 2021. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on the review of the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity and updated plan of action (CBD/SBSTTA/24/7/Rev.1), including a suggested recommendation. It also had before it, as an information document, a report on the state of knowledge of soil biodiversity (CBD/SBSTTA/24/INF/8).

123. Introducing the item, the Chair recalled that the topic had been considered during the informal session, on 25 and 26 February 2021, at which time interventions had been made by 33 Parties, 2 regional groups and 10 observers, with written statements also received from 2 other Parties and 7 other observers.⁹⁹

124. A regional statement was made by the representative of Ghana (on behalf of African Group).

125. Statements were made by the representatives of Argentina, Brazil, China, Colombia, Ecuador, France, Indonesia, Kenya, Morocco, Peru, Samoa (also on behalf of Palau), Spain, South Africa, Switzerland and Uganda.

126. In addition to statements presented orally by Parties, written statements by Australia, Mexico and Portugal were made available on the meeting web page.

127. Statements were also made by representatives of the CBD Alliance, the CBD Women's Caucus, FAO, IPC, the Nature Conservancy (also on behalf of the World Wildlife Fund) and the University of Cambridge Conservation Leadership Alumni Network.

128. Following the exchange of views, the Chair said that he would prepare a revised text on the elements of the agenda item related to biodiversity and agriculture, taking into account the views expressed orally by the Parties or supported by them and the comments received in writing, during the informal session in February and at the current meeting.

129. The Subsidiary Body considered the draft recommendation prepared by the Chair at the seventh plenary session of part I of the meeting, on 7 June 2021.

130. Statements were made by representatives of Argentina, Austria, Belgium, Brazil, Canada, Chile, Colombia Costa Rica, Germany, Indonesia, Japan, Peru, Switzerland and the United Kingdom.

131. The Subsidiary Body resumed its consideration of the draft recommendation at the eighth plenary session of part I of the meeting, on 8 June 2021.

132. Following an exchange of views, the Subsidiary Body approved the draft recommendation, as orally amended, as draft recommendation CBD/SBSTTA/24/L.7, for formal adoption at a later stage. It was noted that, due to time constraints, the annex setting out the draft action plan 2020–2030 on the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity could not be considered and was therefore placed in brackets.

133. At the second plenary session of part II of the meeting, on 14 March 2022, the Subsidiary Body established a contact group, co-chaired by Mr. Adams Toussaint (Saint Lucia) and Mr. Norbert Bärlocher (Switzerland), to consider the draft plan of action.

134. At the third plenary session of part II of the meeting, on 19 March 2022, following discussion in the contact group, the Subsidiary Body considered a draft plan of action 2020–2030 for the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity and, following an exchange of

⁹⁹ The report on the informal session is available at <https://www.cbd.int/conferences/sbstta24-sbi3/sbstta-24-prep-03/documents>.

views, approved it, as orally amended, for formal adoption by the Subsidiary Body as an annex to draft recommendation CBD/SBSTTA/24/L.7/Rev.1.

135. At the seventh plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body adopted recommendation CBD/SBSTTA/24/L.7/Rev.1, as orally amended, as recommendation 24/6. The text of the recommendation, as adopted, is contained in section I to the present report.

ITEM 8. PROGRAMME OF WORK OF THE INTERGOVERNMENTAL SCIENCE-POLICY PLATFORM ON BIODIVERSITY AND ECOSYSTEM SERVICES

136. The Subsidiary Body considered agenda item 8 at the second plenary session of part I of the meeting, on 4 May 2021. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on the programme of work of IPBES (CBD/SBSTTA/24/8), which included a suggested recommendation. It also had an information document on the topic (CBD/SBSTTA/24/INF/17) for its consideration.

137. Regional statements were made by representatives of Serbia (on behalf of the Central and Eastern European countries) and South Africa (on behalf of the African Group).

138. Additional statements were made by representatives of Argentina, Brazil, Japan, Mexico and Switzerland.

139. The Subsidiary Body resumed its consideration of the item during the third plenary session of part I of the meeting, on 23 May 2021.

140. Statements were made by representatives of Belgium, Bosnia and Herzegovina, Canada, Cambodia, Chile, China, Colombia, Ecuador, Ethiopia, the European Union, Finland, France, Germany, Indonesia, Italy, Morocco, Norway, Peru, Portugal, Spain and the United Kingdom.

141. A statement was also made by the representative of the secretariat of IPBES.

142. Further statements were made by representatives of the CBD Women's Caucus, GYBN and the IIFB.

143. In addition to the statements by observers presented orally, statements by the following observer organizations could not be delivered due to limited time but were made available on the meeting web page: the Division for Ocean Affairs and the Law of the Sea, Griffith University, the secretariat of the Convention on the Conservation of Migratory Species of Wild Animals (also on behalf of the secretariat of UNESCO) and the secretariat of the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa.

144. Following the exchange of views, the Chair said that he would prepare a revised draft recommendation for the consideration of the Subsidiary Body, taking into account the views expressed orally by the Parties or supported by them and the comments received in writing.

145. At the seventh session of the meeting, on 7 June 2021, the Subsidiary Body considered a revised draft recommendation submitted by the Chair. Following an exchange of views, the Subsidiary Body approved the revised draft recommendation, as orally amended, as draft recommendation CBD/SBSTTA/24/L.4, for formal adoption at a later stage.

146. At the seventh plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body adopted draft recommendation CBD/SBSTTA/24/L.4, as orally amended, as recommendation 24/3. The text of the recommendation, as adopted, is contained in section I to the present report.

147. Following the adoption of the recommendation, at the invitation of the Chair, a representative of Intergovernmental Science-Policy Platform on Biodiversity (IPBES) made a statement. She said that, at its ninth session, to be held in July 2022, the Plenary of IPBES was to consider requests for a second global assessment of biodiversity and ecosystem services. The "rolling" nature of the IPBES work programme, however, meant that additional deliverables were agreed to on an ongoing basis; as part II of the fifteenth meeting of Conference of the Parties to the Convention on Biological Diversity would occur after the ninth

session, the Plenary might decide to only consider the requests for a second global assessment at its tenth session, to be held in April or May 2023. At part II of its fifteenth meeting, the Conference of the Parties might therefore provide additional details on its request for a second global assessment and consider asking IPBES for additional deliverables that could support the implementation or monitoring of the post-2020 global biodiversity framework.

ITEM 9. BIODIVERSITY AND HEALTH

148. The Subsidiary Body considered agenda item 9 at the eighth plenary session of part I of the meeting, on 8 June 2021. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on biodiversity and health (CBD/SBSTTA/24/9), which included a suggested recommendation. It also had before it, as information documents, supporting guidance and tools on biodiversity and health interlinkages and One Health approaches (CBD/SBSTTA/24/INF/25) and a compilation of key messages and approaches to biodiversity and health interlinkages (CBD/SBSTTA/24/INF/26).

149. The Chair of the session, Ms. Helena Jeffery Brown (Antigua and Barbuda), recalled that the item had not been on the agenda of the informal session and said that, owing to time constraints, a draft recommendation on the topic would only be considered during the second part of the twenty-fourth meeting of the Subsidiary Body, to be held in person at a later date.

150. A regional statement was made by the representative of Ukraine (on behalf of the Central and Eastern European countries).

151. Statements were made by representatives of Argentina, Bangladesh, Belgium, Brazil, Canada, Chile, China, Colombia, Costa Rica, Ecuador, the European Union, Finland, France, Germany, Indonesia, Japan, Malaysia, Mexico, the Netherlands, New Zealand, Peru, the Philippines, Portugal, South Africa, Spain, Sweden, Switzerland, Uganda and the United Kingdom.

152. Statements were made by representatives of FAO, UNEP and the World Health Organization.

153. Statements were also made by representatives of the Advisory Committee of Subnational Governments for Biodiversity (coordinated by Regions4 and the government of Quebec) (also on behalf of the European Committee of the Regions, the Group of Leading Subnational Governments toward Aichi Biodiversity Targets, ICLEI – Local Governments for Sustainability, and on behalf of the Edinburgh Process partners), the CBD Women’s Caucus, the Global Youth Biodiversity Network (GYBN), the International Indigenous Forum on Biodiversity (also on behalf of the Indigenous Women’s Biodiversity Network).

154. In addition to the statements by observers presented orally, statements by the following observer organizations could not be delivered due to limited time but were made available on the meeting web page: Future Earth, IUCN, the Nature Conservancy, Target Malaria and WCS.

155. At the ninth session of part I of the meeting, on 9 June 2021, the Chair said that, following consultations with the Bureau, he had decided to establish a contact group to further discuss the issue when the Subsidiary Body next met in person. The specific mandate of the contact group would be to review the annex of the document, a global action plan for biodiversity and health, and, if time allowed, to also review the recommendations. The contact group would be co-chaired by Ms. Jeffery Brown and Ms. Marina von Weissenberg (Finland). Based on interventions and submissions received, the Secretariat would issue a non-paper document that would serve as a basis for discussion in the contact group.

156. At the second plenary session of part II of the meeting, on 14 March 2022, the Subsidiary Body established a contact group, co-chaired by Ms. Helena Jeffery Brown (Antigua and Barbuda) and Ms. Marina von Weissenberg (Finland), with the mandate to discuss the annex containing a draft global action plan for biodiversity and health, and, if time allowed, to also review the draft recommendation. The contact group would work on the basis of a non-paper prepared by the Secretariat.

157. At the third plenary session of part II of the meeting, on 19 March 2022, one of the co-chairs of the contact group reported that the contact group had discussed the draft global action plan and reviewed the draft recommendation. A non-paper reflecting the discussions had been issued but, in view of the comments

received, it had been decided that the contact group should meet again to continue its deliberations and develop a revised text for the consideration of the Subsidiary Body.

158. At the fifth plenary session of part II of the meeting, on 23 March 2022, a co-chair of the contact group said that, in the light of the discussions in the contact group, the co-chairs were of the view that it would be challenging to complete the review of the draft global action plan during the current meeting.

159. The Chair thanked the co-chairs of the contact group and established a group of friends of the Chair, co-chaired by Ms. Jeffery Brown and Ms. von Weissenberg, to find a way forward, which would be considered at a subsequent plenary session. The group would be composed of the representatives of Antigua and Barbuda, Argentina, Brazil, Colombia, the European Union, Germany, Malawi, Malaysia, Mexico, Serbia, Switzerland and Uganda, but was also open to any other Party that wished to participate.¹⁰⁰

160. At the sixth plenary session of part II of the meeting, on 25 March 2022, a co-chair of the group of friends of the Chair reported that the group had discussed requesting that the Executive Secretary complete the work, pursuant to decision 14/4.

161. The Subsidiary Body then considered a draft recommendation submitted by the Chair and, following an exchange of views, approved it, as orally amended, as draft recommendation CBD/SBSTTA/24/L.9, for formal adoption by the Subsidiary Body.

162. At the seventh plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body adopted draft recommendation CBD/SBSTTA/24/L.9, as orally amended, as recommendation 24/7. The text of the recommendation, as adopted, is contained in section I to the present report.

163. At the invitation of the Chair, a representative of the United Nations Environment Programme made a statement on behalf of the Quadripartite Alliance for One Health and the Nature for Health trust fund. Her statement is available, under the “statements” tab, at <https://www.cbd.int/conferences/geneva-2022/sbstta-24/documents>.

164. The representative of Finland, asking that her statement be reflected in the report, welcomed the efforts made on biodiversity and health at the current meeting. The adoption of the resolution on biodiversity and health at the recent United Nations Environment Assembly had been an important step, but it was important to continue collaboration with the World Health Organization and the expert working group on biodiversity, climate, One Health and nature-based solutions, the World Organisation for Animal Health, the Food and Agriculture Organization of the United Nations, the United Nations Environment Programme and the other biodiversity-related conventions, and for the Subsidiary Body to conclude its work and fulfil its mandate pursuant to paragraphs 13 (b) and (c) of decision 14/4, including with respect to the development of a global action plan.

165. The representative of Belgium, also asking that his statement be reflected in the report, said that his delegation had participated in the group of friends of the Chair and, while grateful to the participants and the co-leads for their constructive work, was disappointed with the outcome of the negotiations on biodiversity and health at the current meeting, particularly the fact that the presentation of the draft global action plan for biodiversity and health was to be postponed until the sixteenth meeting of the Conference of the Parties. It was difficult to justify that postponement at a time when a global pandemic of possible zoonotic origin was still raging.

ITEM 10. INVASIVE ALIEN SPECIES

166. The Subsidiary Body considered agenda item 10 at the sixth plenary session of part I of the meeting, on 26 May 2021. In considering the item, the Subsidiary Body had before it a note by the Executive Secretary on invasive alien species (CBD/SBSTTA/24/10, and Corr.1), including a suggested recommendation. It also had before it, as information documents: (a) a note by the Executive Secretary on invasive alien species: technical specifications under the World Customs Organization Framework of

¹⁰⁰ The following countries also participated in the contact group: Belgium, Bosnia and Herzegovina, Botswana, China, France, Japan, Norway, Turkey and United Kingdom.

Standards on Cross-border E-commerce (CBD/SBSTTA/24/INF/15); (b) a note by the Executive Secretary on draft advice or elements for the development of technical guidance on management measures for invasive alien species to be implemented by broad sectors to facilitate achieving Aichi Biodiversity Target 9 and beyond (CBD/IAS/AHTEG/2019/1/2); and (c) the report of the Ad Hoc Technical Expert Group on Invasive Alien Species (BD/IAS/AHTEG/2019/13).

167. Introducing the item, the Chair recalled that the topic had been considered during the informal session, on 26 February 2021, at which time interventions had been made by 26 Parties and 2 regional groups, with written statements also received from 2 other Parties and 7 observers.¹⁰¹

168. Statements were made by the representatives of Argentina, Australia, Brazil, Chile, Colombia, Ecuador, Finland, France, Indonesia, Israel, Italy, Japan, Malaysia, Morocco, Peru, Portugal, Samoa, South Africa, Spain, Sweden and Uganda.

169. In addition to statements presented orally by Parties, written statements by Canada, Mexico and Panama were made available on the meeting web page.

170. Statements were also made by representatives of the CBD Women's Caucus, FAO, IIFB, Island Conservation and IUCN.

171. Following the exchange of views, the Chair said that he would consult on the need for a contact group or other arrangements to facilitate progress on the item. Pending those consultations, he would also prepare a revised text on the elements of the agenda item related to invasive alien species, taking into account the views expressed orally by the Parties or supported by them and the comments received in writing, during the informal session in February and at the current meeting.

172. The Chair subsequently established a friends of the chair group facilitated by Ms. Senka Barudanovic (Bosnia and Herzegovina).

173. At the ninth plenary session of part I of the meeting, on 9 June 2021, the facilitator of the friends of the chair group reported on the group's deliberations. She explained that at the request of the Chair, the Secretariat had sent invitations to delegates from 16 Parties, 14 of whom had attended a group meeting. The group had been tasked to find a way forward on the annexes in the draft recommendation prepared by the Chair. The draft recommendation had been updated to reflect the outcome of the group's discussions.

174. Following the facilitator's report, the Chair said that owing to a lack of time, consideration of the draft recommendation set out in document CBD/SBSTTA/24/CRP.7, which reflected statements made and submissions received during the informal session in February and the current meeting including the outcome of discussions in the friends of the chair group, would be deferred to a later date.

175. The Subsidiary Body considered the draft recommendation at the fifth plenary session of part II of the meeting, on 23 March 2022.

176. The Chair said that the group of friends of the Chair had proposed the organization of a peer review of annexes I to VI and the convening of a moderated open-ended online forum to discuss the results of that peer-review process. He proposed that the Subsidiary Body only consider the recommendation contained in the document and agree to send the annexes for peer review.

177. The representative from Brazil, requesting that his statement be reflected in the report, said that the annexes did not reflect all the comments received during part I of the meeting and asked the Chair to clarify the status of the annexes. The Chair confirmed that the annexes had not yet been agreed and suggested that the peer review process would be an opportunity for further comments.

178. Following an exchange of views, the Subsidiary Body approved the draft recommendation, as orally amended, as draft recommendation CBD/SBSTTA/24/L.8, for formal adoption by the Subsidiary Body.

¹⁰¹ The report on the informal session is available at <https://www.cbd.int/conferences/sbstta24-sbi3/sbstta-24-prep-03/documents>.

179. At the seventh plenary session of part II of the meeting, on 27 March 2022, the Subsidiary Body adopted the recommendation CBD/SBSTTA/24/L.8, as orally amended, as recommendation 24/8. The text of the recommendation, as adopted, is contained in section I to the present report.

ITEM 11. OTHER MATTERS

180. No other matters were raised.

ITEM 12. ADOPTION OF THE REPORT

181. At the ninth plenary session of part I of the meeting, on 9 June 2021, following an introduction by the Rapporteur, the report of part I of the meeting (CBD/SBSTTA/24/Part1/L.1) was approved by the Subsidiary Body on the understanding that it would be completed to reflect the proceedings of the session and that the full report would be considered and adopted at a resumed session.

182. The Chair noted that he would draw the attention of the Co-Chairs of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework to the proceedings of the meeting, the documents prepared and the statements made, so that they could take them into account, as appropriate, in preparing the first draft of the framework ahead of the third meeting of the Working Group.

183. The report of part II of the twenty-fourth meeting of the Subsidiary Body was adopted at the eighth plenary session of part II of the meeting, on 27 March 2022, on the basis of the draft prepared by the Rapporteur (CBD/SBSTTA/24/Part2/L.1), as orally amended, on the understanding that the Rapporteur would be entrusted with its finalization. The final report of part II of the meeting would be combined with the report of part I of the meeting.

ITEM 13. CLOSURE OF THE MEETING

184. As indicated in the scenario note for part I of the meeting (CBD/SBSTTA/24/1/Add.2) and described in paragraph 39 above, the Subsidiary Body agreed, at the ninth plenary session of part I of the meeting, on 9 June 2021, to suspend its twenty-fourth meeting and resume it at a later date. During the session, a number of representatives signalled connectivity issues that they felt prevented them from participating adequately in the discussion.

185. The meeting was suspended at 2.15 p.m. (UTC) (10.15 a.m. Montreal time) on 9 June 2021.

186. At the eighth plenary session of part II of the meeting, following the customary exchange of courtesies, the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice was closed at 5.05 p.m. on Sunday, 27 March 2022.
