UNEP

CBD

Convention on Biological Diversity

Distr.
GENERAL

CBD/COP/14/2
1 September 2018

ORIGINAL: ENGLISH

CONFERENCE OF THE PARTIES TO THE
CONVENTION ON BIOLOGICAL DIVERSITY
Fourteenth meeting
Sharm El-Sheikh, Egypt, 17-29 November 2018

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

INTRODUCTION

The present note contains a compilation of draft decisions for the consideration of the Conference of the Parties at its fourteenth meeting. These draft decisions are organized according to the provisional agenda for the meeting and the revised annotations thereto (CBD/COP/14/1 and CBD/COP/14/1/Add.1/Rev.1). This note includes the draft decisions contained in the various recommendations from the twenty-first and twenty-second meetings of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), the second meeting of the Subsidiary Body on Implementation, the tenth meeting of the Ad Hoc Open-ended Inter-sessional Working Group on Article 8(j) and Related Provisions, and, where appropriate, additional elements developed by the Executive Secretary in the light of previous decisions of the Conference of the Parties or recommendations of its subsidiary bodies, which are highlighted in light grey throughout the document. The mandates for these additional elements are provided in the documentation prepared for the fourteenth meeting of the Conference of the Parties.

CONTENTS

ELEMENTS OF DRAFT DECISIONS BY ITEMS OF THE AGENDA

Items 1, 2, 3, 4 and 5

Except for item 5, no draft decisions are foreseen under these items, which are procedural (such as opening of the meeting, organization of work, election of officers, reports, etc). The action required on the part of the Conference of the Parties under these items is reflected in the revised annotations to the provisional agenda (CBD/COP/14/1/Add.1/Rev.1).

Item 5. Date and venue of future meetings of the Conference of the Parties

The following elements of draft decisions on date and venue of future meetings of the Conference of the Parties have been prepared by the Executive Secretary

The Conference of the Parties

Recalling its decision XIII/33 by which it decided that the fifteenth meeting of the Conference of the Parties would be held in China and that the sixteenth meeting of the Conference of the Parties would be held in Turkey,

Decides that the sixteenth meeting of the Conference of the Parties, the eleventh meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol and the fifth meeting of the Conference of the Parties to the Nagoya Protocol should be held in [date -- to be completed].

Invites Parties from the Central and Eastern Europe region to notify the Executive Secretary of their offers to host the seventeenth meeting of the Conference of the Parties as well as the twelfth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol and the sixth meeting of the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol;

Requests the Subsidiary Body on Implementation, in light of its consideration of proposals for the post-2020 global biodiversity framework, to prepare a proposal on the periodicity of meetings of the Conference of the Parties beyond the sixteenth meeting, for consideration by the Conference of the Parties at its fifteenth meeting for its adoption;

Item 6. Reports of intersessional and regional preparatory meetings

In accordance with previous practice, the Conference of the Parties may wish to take note, in the report of the meeting, of the reports presented by subsidiary bodies (item 6 of the agenda) and take substantive matters raised in these reports under the relevant item of the agenda.

(a) Tenth meeting of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity (CBD/WG8J/10/11);

(b) Twenty-first and twenty-second meetings of the Subsidiary Body on Scientific, Technical and Technological Advice (CBD/SBSTTA/21/10 and CBD/SBSTTA/22/12);

(c) Second meeting of the Subsidiary Body on Implementation (CBD/SBI/2/22).

The regional groups may wish to report to the Conference of the Parties on the results of any regional preparatory meetings to be held prior to the fourteenth meeting of the Conference of the Parties.

Item 7. Administration of the Convention and budget for the trust funds

The following elements of draft decisions have been prepared by the Executive Secretary except for paragraphs 24-27 which are taken from recommendation 2/20 of the Subsidiary Body on Implementation. The tables on administrative and budgetary matters, to be annexed to decision will be prepared by the Executive Secretary and provided in document CBD/COP/14/3.

Budget for the integrated programme of work of the Secretariat

The Conference of the Parties,

Recalling its decision XIII/32 and decision VIII/7 of the of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety at its seventh meeting, decision I/13 of the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol on Access and Benefit Sharing of Genetic Resources,

Recalling Resolution 2/18 of the United Nations Environment Assembly on the relationship between the United Nations Environment Programme and the multilateral environmental agreements for which it provides the Secretariat,

1. *Decides* to adopt an integrated programme of work and budget for the Convention on Biological Diversity, the Cartagena Protocol on Biosafety and the Nagoya Protocol on Access and Benefit Sharing;

2. *Also decides* to share all costs for Secretariat services among the Convention, the Cartagena Protocol and the Nagoya Protocol on a ratio of [*to be completed*] for the biennium 2019-2020;

3. *Approves* a core (BY) programme budget for the Convention of [*to be completed*] United States dollars for the year 2019 and of [*to be completed*] United States dollars for the year 2020, representing [*to be completed*] per cent of the integrated budget of [*to be completed*] United States dollars for the year 2019 and [*to be completed*] United States dollars for the year 2020 for the Convention and the Protocols, for the purposes listed in the tables 1a and 1b below;

4. *Expresses* its appreciation to Canada as the host country for its renewed support to the Secretariat and welcomes the contribution of [*to be completed*]Canadian dollars for the year 2019 and [*to be completed*] Canadian dollars for the year 2020, from the host country, Canada, and the Province of Quebec, to the rental and associated costs of the Secretariat, which has been allocated on a ratio of [*to be completed*] to offset contributions from the Parties to the Convention, the Cartagena Protocol and the Nagoya Protocol, respectively, for the biennium 2019-2020;

5. *Adopts* the scale of assessments for the apportionment of expenses for 2019 and 2020 as contained in the annex to the present decision;

6. *Takes note* of the indicative staffing table 2 of the Secretariat of the biennium 2019-2020 used for costing purposes to set the overall budget;

7. *Authorizes* the Executive Secretary, within the rules and regulations of the United Nations and without prejudice to any decision by the Conference of the Parties at its fifteenth meeting, to adjust the staffing levels and numbers, and structure of the Secretariat, provided that the overall cost of the Secretariat of the Convention and its Protocols remains within that of the indicative staffing table and that there are no consequent increases in the staff costs in the integrated budget in future bienniums, and to report on the adjustments made to the Parties of the Convention and its Protocols at their next meetings;

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

9. *Also authorizes* the Executive Secretary to transfer resources among the programmes between each of the main appropriation lines set out in table 1a below up to an aggregate of 15 per cent of

the total programme budget, provided that a further limitation of up to a maximum of 25 per cent of each such appropriation line shall apply;

10. *Invites* all Parties to the Convention to note that contributions to the core programme budgets (BY, BG and BB) are due on 1 January of the year for which those contributions have been budgeted, and to pay them promptly, and *urges* Parties in a position to do so to pay by 31 December 2018 for the calendar year 2019 and by 1 October 2019 for the calendar year 2020, and, in this regard, *requests* that Parties be notified of the amount of their contributions as early as possible in the year preceding the year in which the contributions are due;

11. *Notes with concern* that a number of Parties to the Convention and its Protocols have not paid their contributions to the core budgets (BY, BG and BB Trust Funds) for 2018 and prior years, including Parties that have never paid their contributions, and *also notes* that, in accordance with the International Public Sector Accounting Standards adopted by the United Nations,[1] arrears estimated at [*to be completed*] United States dollars for the Convention, [*to be completed*] United States dollars for the Cartagena Protocol and [*to be completed*] United States dollars for the Nagoya Protocol will be outstanding at the end of 2018 and will have to be deducted from the fund balance to cover doubtful debt and so cannot be used for the benefit of all the respective Parties;

12. *Urges* Parties that have still not paid their contributions to the core budgets (BY, BG, BB Trust Funds) for 2017 and prior years to do so without delay or conditionalities, and *requests* the Executive Secretary to publish and regularly update information on the status of contributions to the Convention's Trust Funds (BY, BG, BB, BE, BH, BX, BZ and VB) and to keep the members of the Bureaux of the Convention and its Protocols updated so that they can provide information on unpaid contributions and their consequences at regional meetings;

13. *Confirms* that, with regard to contributions due from 1 January 2005 onwards, Parties whose contributions are in arrears for two (2) or more years will not be eligible to become a member of the Bureaux of the Convention, its Protocols or the Subsidiary Body on Scientific, Technical and Technological Advice or to nominate a member of a compliance committee, and decides that this will only apply in the case of Parties that are not least developed countries or small island developing States;

14. *Authorizes* the Executive Secretary to enter into arrangements with any Party whose contributions are in arrears for two or more years to mutually agree on a "schedule of payments" for such a Party to clear all outstanding arrears within six years depending on the financial circumstances of the Party in arrears and pay future contributions by the due date, and report on the implementation of any such arrangement to the Bureau at its next meeting and to the Conference of the Parties;

15. *Decides* that a Party with an agreed arrangement in accordance with paragraph XX above and that is fully respecting the provisions of that arrangement will not be subject to the provisions of paragraph XX above;

16. *Requests* the Executive Secretary and *invites* the President of the Conference of the Parties, through a jointly signed letter, to notify Parties whose contributions are in arrears inviting them to take timely action and to thank those Parties that have responded in a positive manner in paying their outstanding contributions;

17. *Notes* that the trust funds for the Convention and its Protocols (BY, BG and BB) should be extended for a period of two years beginning 1 January 2020 and ending 31 December 2021, and *requests* the Executive Director of the United Nations Environment Programme to seek the approval of the United Nations Environment Assembly for their extension;

18. *Acknowledges* the funding estimates for:

(a) The BE Trust Fund for additional approved activities of the Convention and its Protocols for the period 2019-2020 included in table 3 below;

[1] See General Assembly resolution 60/283, sect. IV.

(b) The Special Voluntary Trust Fund (BZ) for facilitating participation of developing country Parties, in particular the least developed countries and small island developing States as well as Parties with economies in transition, in the work of the Convention and its Protocols for the period 2019-2020, contained in table xx below;

(c) The VB Trust Fund for facilitating participation of Indigenous Peoples and Local Communities in the work of the Convention and its Protocols for the period 2019-2020, contained in table 5 below;

19. *Notes* that the voluntary trust funds (BE, BZ, VB) for the Convention and its Protocols should be extended for a period of four years beginning 1 January 2022 and ending 31 December 2025, and *requests* the Executive Director of the United Nations Environment Programme to seek the approval of the United Nations Environment Assembly for their extension;

20. *Invites* the Executive Director of the United Nations Environment Programme to continue the arrangement of waiving the programme support costs on the voluntary contributions for participation from the BZ and VB Trust Funds since the Secretariat of the Convention on Biological Diversity meets the criteria set out in Resolution 2/18, namely that arranging participation is done by administrative staff financed from the programme support costs of the operating budget;

21. *Recalls* rule 30 of the rules of procedure of the Convention, and *stresses* the need to have a wide range of Parties attending meetings of the Parties to the Convention and its Protocols, especially in order to reach the level of two thirds of Parties present needed to provide a quorum for the meeting, allowing decisions to be taken;

22. *Reaffirms* the importance of full and active participation of the developing country Parties, in particular the least developed countries and small island developing States, as well as Parties with economies in transition, in the meetings of the Convention and its Protocols and, in this context, *requests* the Executive Secretary to take into account the relevant decisions of the Conference of the Parties and the meetings of the Parties to its Protocols on concurrent meetings and on improving the efficiencies of the structures and processes of the Convention and its Protocols;

23. *Notes with concern* that the participation of developing countries, especially least developed countries and small island developing States as well as Parties with economies in transition, in meetings of the Convention and its Protocols has been adversely affected by the lack of predictable and sustainable funding;

24. *Invites* developed country Parties and other Parties in a position to do so, including in the context of the South-South cooperation, to increase their contributions to the BZ Trust Fund in order to enable the full and effective participation of representatives of developing country Parties, in particular the least developed countries and small island developing States, as well as countries with economies in transition;

25. *Recalls* paragraph 31 of decision IX/34, and *requests* the Executive Secretary, when allocating the funding from the BZ Trust Fund, to continue to accord first priority to funding for least developed countries and small island developing States;

26. *Takes note* of the various existing guidelines for the engagement of the private sector with the United Nations system;

27. *Requests* the Executive Secretary to keep under review the experience of other conventions and United Nations processes (a) with respect to the funding of the participation of eligible developing country Parties, including the least developed countries and small island developing States and Parties with economies in transition, (b) in engaging the private sector to contribute to funds for the participation of delegates from developing countries in their meetings, and (c) to inform the Bureau of the Conference of the Parties of further developments in this respect.

28. *Also requests* the Executive Secretary to remind Parties of the need to contribute to the Special Voluntary Trust Fund (BZ) at least six months prior to the ordinary meetings of the Convention and its Protocols and to issue early invitations to other donors to make contributions;

29. *Further requests* the Executive Secretary, in consultation with the Bureaux, to continue to monitor the availability of voluntary contributions to the special voluntary Trust Fund (BZ) with a view to allowing members of those Bureaux to bring any shortfalls in contributions to the attention of member Parties, and potential donors, as appropriate, in their regions;

30. *Requests* the Executive Secretary to prepare and submit an updated integrated programme of work for the Convention and its Protocols for the period 2019-2022 setting out, inter alia, functional objectives, expected results and resources required with a view to allowing results-based management;

31. *Also requests* the Executive Secretary to prepare and submit an integrated budget for the Convention and the Protocols for the integrated programme of work described in paragraph xx above, for the biennium 2021-2022 for the consideration of the Parties to the Convention and its Protocols at their next meetings;

32. *Further requests* the Executive Secretary to report to the Parties to the Convention and its Protocols at their next meetngs on income and budget performance, unspent balances and the status of surplus and carry-overs as well as any adjustments made to the budget for the biennium 2019-2020.

Table 1. Integrated biennium budget for the Trust Funds of the Convention on Biological Diversity and its Protocols 2019-2020

Table 1a By programme of work

Table 1b. By object of expenditure

Table 2. Secretariat staffing requirements from the core budgets of the Convention and its Protocols, 2019-2020

Table 3. Resource requirements from the Special Voluntary Trust Fund (BE) for Additional Voluntary Contributions in Support of Approved Activities under the Convention and its Protocols for the period 2019-2020

Table 4. Resource requirements from the Special Voluntary Trust Fund (BZ) for facilitating the participation of Parties in the Convention and its protocols for the period 2019-2020

Table 5. Resource requirements from the Special Voluntary Trust Fund (VB) for facilitating the participation of Indigenous Peoples and Local Communities in the Convention and its protocols for the period 2019-2020

Table 6. Contributions to the Trust Fund for the Convention on Biological Diversity for the biennium 2019-2020

Item 8. Review of progress in the implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020

Updated scientific assessment of progress towards selected Aichi Biodiversity Targets and options to accelerate progress

The following is taken from recommendation 22/4 of the Subsidiary Body on Scientific, Technical and Technological Advice and recommendation 2/1 of the Subsidiary Body on Implementation. The two draft decisions have been combined to ensure a logical sequence: paragraphs 2-4, 11-16, and 19-20 are taken from the SBSTTA recommendation (paras 1-3, 4-9 and 10-11 respectively), while paragraphs 1, 5-10, 17 and 20-22 are taken from SBI recommendation (paras 1, 2-7, 8 and 10-12 respectively). Paragraph 8 of the SBI recommendation is redundant with paragraph 2 of the SBSTTA recommendation and has been omitted.

The Conference of the Parties,

Recalling decisions XIII/5, XIII/28 and XIII/29,

Recalling decision XIII/1, in particular paragraphs 12 and 19,

Deeply concerned that, despite many positive actions by Parties and others, most of the Aichi Biodiversity Targets are not on track to be achieved by 2020, which, in the absence of further significant progress, will jeopardize the achievement of the mission and vision of the Strategic Plan for Biodiversity 2011-2020[2] and the Sustainable Development Goals, [3]

1. *Welcomes* the updated analysis of national biodiversity strategies and action plans and national reports, and the assessment of progress towards the implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020;[4,5]

2. *Welcomes with appreciation* the regional assessments of biodiversity and ecosystem services for Africa, the Americas, Asia and the Pacific, and Europe and Central Asia, and the Thematic Assessment of Land Degradation and Restoration of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services;

3. *Welcomes* the review of updated scientific information,[6] including its conclusions and information gaps, and the possible options to accelerate progress towards the achievement of the Aichi Biodiversity Targets contained in the annex to the present decision;

4. *Also welcomes* the additional indicators which have been identified and those which have updated data points[7] and acknowledges the contribution of the Biodiversity Indicators Partnership in advancing the work on indicators relevant to the Strategic Plan for Biodiversity 2011-2020;[8]

5. *Recognizes* the efforts made by Parties to translate the Aichi Biodiversity Targets into national commitments and actions, but *notes with concern* the findings of the updated assessment of progress towards the achievement of the Aichi Biodiversity Targets,[9] in particular:

(a) For most of the Aichi Biodiversity Targets, there has been limited progress, and, for some Targets, no overall progress;

---

[2] Decision X/2, annex.

[3] See General Assembly resolution 70/1 entitled "Transforming our world: the 2030 Agenda for Sustainable Development".

[4] CBD/SBI/2/2/Add.1 and Add.2.

[5] Decision X/2, annex.

[6] See also CBD/SBSTTA/22/INF/10, INF/22, INF/23, INF/26, INF/30, INF/31, INF/32, INF/34 and INF/35.

[7] CBD/SBSTTA/22, annex I.

[8] Decision X/2, annex.

[9] CBD/SBI/2/2 and CBD/SBI/2/Add.2.

(b) Only a minority of Parties have adopted their national biodiversity strategies and action plans as whole-of-government policy instruments;

(c) Only a minority of national biodiversity strategies and action plans contain resource mobilization strategies, communication and public awareness strategies, or capacity development strategies, as the guidance for national biodiversity strategies and action plans suggests;

(d) Only a minority of national biodiversity strategies and action plans demonstrate that biodiversity is being mainstreamed significantly into cross-sectoral plans and policies, poverty eradication policies, and/or sustainable development plans;

6. *Notes* that some Parties have integrated their national biodiversity strategies and action plans into other national environmental and development strategies and that this can facilitate more effective resource mobilization and communication;

7. *Invites* Parties that have adopted their national biodiversity strategies and action plans as whole-of-government policy instruments to share, including through the clearing-house mechanism of the Convention, their experiences and best practices in doing so, including challenges encountered;

8. *Urges* Parties to significantly accelerate their efforts to implement the Strategic Plan for Biodiversity 2011-2020, in particular by addressing any gaps between the aspirations included in their national biodiversity strategies and action plans and the actions taken to implement them;

9. *Invites* Parties to collaborate with indigenous peoples and local communities, civil society organizations and women's groups and other stakeholders to accelerate progress in implementation;

10. *Invites* Parties and others to join and contribute to partnerships, coalitions and alliances established to support the achievement of the Strategic Plan and the Aichi Biodiversity Targets;

11. *Encourages* Parties and *invites* other Governments, with a view to informing actions at the national level, to make use of the following, as appropriate:

(a) The regional assessments of biodiversity and ecosystem services for Africa, the Americas, Asia and the Pacific, and Europe and Central Asia, and the Thematic Assessment of Land Degradation and Restoration of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services;

(b) The review of updated scientific information, including its conclusions, information gaps and possible options to accelerate progress towards the achievement of the Aichi Biodiversity Targets;[10]

(c) The additional indicators relevant to the Strategic Plan for Biodiversity 2011-2020 which have been identified and those which have updated data points;[11]

12. *Urges* Parties and *invites* other Governments, as appropriate, to consider undertaking national assessments of biodiversity and ecosystem functions and services;

13. *Invites* relevant organizations and development partners to support Parties in undertaking national assessments of biodiversity and ecosystem functions and services, noting ongoing work in this regard undertaken in the context of BesNET with technical support from the United Nations Environment Programme's World Conservation Monitoring Centre;[12]

14. *Urges* Parties and *invites* other Governments, in accordance with national circumstances, and *invites* relevant organizations, indigenous peoples and local communities and stakeholders to take urgent action by 2020 on those Aichi Biodiversity Targets, or elements thereof, for which progress needs to be accelerated, by carrying out, among other things, the following actions, as appropriate:

---

[10] CBD/SBSTTA/22/INF/10.

[11] CBD/SBSTTA/22, annex I.

[12] See the report of the global inception and capacity-building meeting on developing capacity for undertaking national ecosystem assessments in IPBES and Project on "supporting developing country capacity to address science-policy questions through IPBES via the UNDP managed Biodiversity and Ecosystem Services Network (BES-Net) and the UNEP-WCMC hosted Sub-Global Assessment Network".

(a) For Target 1 advance the development of communication strategies and tools for education and awareness-raising related to biodiversity as a means to promote behavioural change for sustainable consumption, noting that while more biodiversity-related information has been made available it is not reaching the general public;

(b) For Target 3, eliminate, phase out or reform perverse incentives that contribute to biodiversity degradation and devise positive incentives that reward the adoption of sustainable practices;

(c) For Target 5, noting that while the annual rate of net forest loss has been halved, further efforts to address regional forest degradation and deforestation are needed;

(d) For Target 6, enhance efforts to reverse the decline in the sustainability of the world's fisheries;

(e) For Target 7, promote the conservation and sustainable use of soil biodiversity, such as by contributing to the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity coordinated by the Food and Agriculture Organization of the United Nations;[13] and improve enforcement and monitoring of sustainable forest management, particularly in developing countries and tropical regions;

(f) For Target 8, increase actions to reduce pollution, including from excess nutrients;

(g) For Target 9, place more focus on preventing the spread of invasive alien species and to eradicate those already present;

(h) For Target 10, enhance efforts to prevent continued worldwide decrease of live coral cover;

(i) For Targets 11 and 12, noting that not all eco-regions of the world are adequately covered by protected areas, most protected areas are not well connected, and most Parties have not assessed the management effectiveness of the majority of their protected areas, and that global prevention of species loss should focus on specific regions of the world where most species diversity exists and/or where they are the most threatened, focus on the protection, management and conservation of the most significant areas for biodiversity, such as through the initiatives of the Alliance for Zero Extinction and others,[14] through protected areas, other effective area-based conservation measures and specific species conservation measures;

(j) For Target 13, noting that the number of plant genetic resources for food and agriculture secured in conservation facilities shows an increase, enhance actions to avoid further reduction in genetic variation among breeds of farmed and domesticated animals;

(k) For Targets 14 and 15, step up the implementation of the short-term action plan on ecosystem restoration,[15] drawing on the findings of the Thematic Assessment of Land Degradation and Restoration of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services;

(l) For Target 18, increase efforts in the protection of and respect for traditional knowledge and make use of information contained in the *Local Biodiversity Outlooks*,[16] inter alia, on the customary sustainable use by indigenous peoples and local communities to contribute to updated reporting on progress in the implementation of the Aichi Biodiversity Targets;

15. *Urges* Parties and *invites* other Governments, and relevant organization to:

[13] Decisions III/11, V/5 and VIII/23.

[14] CBD/SBSTTA/22/INF/23.

[15] Decision XIII/5, annex.

[16] https://www.cbd.int/gbo/gbo4/publication/lbo-en.pdf

(a) Strengthen the capacities of national focal points for the Convention on Biological Diversity and decision makers to make effective use of the findings of the assessments of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services;

(b) Facilitate integrated approaches to biodiversity research, including on the interactions between indirect and direct drivers of biodiversity loss and their impacts on biodiversity, ecosystem functions and services and human well-being;

16. *Recognizes* that there is a need to make more effective and systematic use of the support mechanisms identified in the Strategic Plan for Biodiversity 2011-2020,[17] to facilitate action on the issues identified in paragraphs 11, 12 and 13;

17. *Urges* Parties and *invites* other Governments, in accordance with national circumstances, and *invites* relevant organizations, indigenous peoples and local communities and stakeholders to make use of the options contained in the annex to the present decision, as appropriate;

18. *Requests* the Executive Secretary to communicate through the United Nations system, including the High-level Political Forum on Sustainable Development and relevant multilateral environmental agreements, that failing to achieve the Strategic Plan for Biodiversity 2011-2020 jeopardizes the attainment of the 2030 Agenda for Sustainable Development and, therefore, urgent action is required to achieve the Aichi Biodiversity Targets;

19. *Requests* the Executive Secretary, subject to the availability of resources, to use and analyse the review of scientific information and the outcomes of all IPBES products including the regional assessments on biodiversity and ecosystem services and the Thematic Assessment of Land Degradation and Restoration in the preparation of post 2020 global biodiversity framework under Convention and provide the results of those considerations to a meeting of SBSTTA prior to the fifteenth meeting of the Conference of the Parties.

20. *Requests* the Executive Secretary, in collaboration with Parties, to keep the analysis of national biodiversity strategies and action plans and national targets up-to-date and to make this information available through the clearing-house mechanism of the Convention;

21. *Encourages* Parties to submit the sixth national report in a timely manner, and *requests* the Executive Secretary to continue to update the analysis of progress towards the implementation of the Strategic Plan for Biodiversity-2011-2020 on the basis of information contained in the sixth national reports, which should be submitted by 31 December 2018, and to make the updated analysis available for consideration by the Subsidiary Body on Implementation at its third meeting;

22. *Requests* the Executive Secretary, in consultation with Parties, the Secretariat of the Global Environment Facility, the United Nations Development Programme and the United Nations Environment Programme, to analyse the status of adoption of national biodiversity strategies and action plans by eligible Parties and to continue to monitor the integration of biodiversity into sustainable development plans and poverty eradication strategies;

Annex

POSSIBLE OPTIONS TO ACCELERATE PROGRESS TOWARDS THE ACHIEVEMENT OF THE AICHI BIODIVERSITY TARGETS

1. The present annex contains information on possible actions that could be taken, depending on national circumstances and priorities, to facilitate the achievement of the Aichi Biodiversity Targets.

2. The possible actions, based on the findings of the IPBES regional and thematic assessments and on the conclusions identified from scientific literature,[18] include:

[17] Decision X/2, section VI.

(a) Making greater use of the social sciences, promoting research on cultural issues and on issues associated with people's quality of life, non-material values of biodiversity, the needs of women and the poor and vulnerable,

(b) Increasing the generation of, and access to, biodiversity information, including by promoting research on biodiversity and ecosystem functions and services, developing data sets which can be disaggregated for different ecosystems and at different geographic scales, and developing and promoting mechanisms to share biodiversity information more effectively;

(c) Enhancing the monitoring of all aspects of biodiversity and ecosystem functions and services, including by making greater use of remote observations and geographic information systems as well as using technology for species identification and generation of biodiversity information;

(d) Promoting the use and development of scenarios which integrate biodiversity considerations with other societal and cultural objectives, including poverty and hunger alleviation and climate change adaptation and mitigation, and which consider multiple direct and indirect drivers of biodiversity loss and better reflect ecosystem functions and services;

(e) Better integrating or mainstreaming biodiversity issues within and across all sectors of society, including into national planning and development processes and policy development, to better account for policy leakages and spill-over effects in decision-making and the broader impacts of policy decisions;

(f) Better consideration of the direct and indirect impacts of policies and production and consumption patterns, causal interactions between, and effects on, distant places and ecosystems, and better addressing the implications on biodiversity of policy decisions and production and consumption, both within and outside national borders;

(g) Promoting the greater use of spatial planning techniques in biodiversity conservation and management;

(h) Promoting and developing governance systems which address biodiversity issues in a more coherent manner and better internalize global biodiversity commitments, including by improving the integration of indigenous and local knowledge and plurality of values in governance processes, and by better accounting for possible synergies in the implementation of bilateral and multilateral agreements, the Sustainable Development Goals, and other international and regional initiatives at the national level;

(i) Promoting the use of participatory approaches to biodiversity management, including through the effective participation of indigenous peoples and local communities, and by building the capacity of stakeholders to be able to meaningfully participate in decision-making processes,

(j) Working more effectively with small landholders to adopt more efficient and biodiversity-friendly practices and enhancing cooperation and partnerships with indigenous peoples and local communities, non-governmental organizations, the private sector and individuals;

(k) Improving awareness of biodiversity and the interactions between indirect and direct drivers of biodiversity loss and their impacts on biodiversity, ecosystem functions and services and human well-being through enhanced communication, education and public awareness and taking actions to bring about behavioural and policy change;

(l) Improving the flow of, and access to, financial and technological resources for the conservation and sustainable use of biodiversity;

(m) Promoting actions which address the underlying causes of biodiversity loss and which will contribute to the attainment of multiple Aichi Biodiversity Targets;

(n) Promoting multiple approaches, including non-monetary approaches, to valuing biodiversity and ecosystem function and services;

(o) Better consideration of the full impact of production and consumption processes along the entire supply chain and product life cycle on biodiversity;

---

[18] The actions identified herein should be viewed in relation to the guidance already developed by the Conference of the Parties, including decision X/2 on the Strategic Plan for Biodiversity 2011-2020 and its technical rationale (UNEP/CBD/COP/10/27/Add.1), as well as the implementation needs identified by the Conference of the Parties in decision XII/1.

(p) Eliminating perverse incentives that contribute to biodiversity degradation and devising positive incentives that reward the adoption of sustainable practices;

(q) Promoting investment in the development and use of nature-based solutions in order to address societal challenges, including through ecosystem restoration and the rehabilitation of agricultural systems, ecosystem-based adaptation and mitigation and ecosystem-based approaches to disaster risk reduction,

(r) Taking appropriate measures to protect and restore pollinator diversity, abundance and health;

(s) Reducing the costs of certification of sustainable practices and other barriers for marketing products from sustainable production;

(t) Improving efforts to prevent land degradation and to restore degraded lands;

(u) Increasing efforts to achieve a transformational change in society's relationship with biodiversity.

Gender Plan of Action

The following is taken from recommendation 2/1, section B of the Subsidiary Body on Implementation

---

The Conference of the Parties

Recalling decision XII/7, in which it welcomed the 2015-2020 Gender Plan of Action under the Convention,

Noting that the 2015-2020 Gender Plan of Action is at its mid-way point, and *recognizing* the need for effective implementation of the Plan, including towards the achievement of the Aichi Biodiversity Targets and the Strategic Plan for Biodiversity 2011-2020,

1. *Welcomes* the updated assessment of progress in the implementation of the 2015-2020 Gender Plan of Action;[19]

2. *Emphasizes* the need to address gender considerations in the development of the post-2020 biodiversity framework and in line with the gender targets of the Sustainable Development Goals;[20]

3. *Encourages* Parties to develop and implement gender-responsive strategies and actions to support the implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020;

4. *Encourages* Parties and *invites* other relevant stakeholders to support actions to strengthen knowledge on the linkages between gender and biodiversity, including through the provision of resources for capacity-building on gender and biodiversity issues, and the collection of sex-disaggregated data;

5. *Encourages* Parties and *invites* other relevant stakeholders to support harmonized approaches to capacity-building and implementation of gender-responsive measures for biodiversity across the multilateral environmental agreements;

6. *Requests* the Executive Secretary, subject to availability of resources, to undertake a review of the implementation of the 2015-2020 Gender Plan of Action, in parallel to the development of the fifth edition of the *Global Biodiversity Outlook* and the second edition of the *Local Biodiversity Outlook*, in order to identify gaps, best practices and lessons learned;

7. *Also requests* the Executive Secretary, subject to the availability of resources, to organize regional workshops on the linkages between gender and biodiversity, and the lessons learned from the implementation of the 2015-2020 Gender Plan of Action;

8. *Further requests* the Executive Secretary, subject to the availability of resources, to include discussions on the linkages between gender and biodiversity, and the lessons learned from the

[19] CBD/SBI/2/2/Add.3.

[20] See General Assembly resolution 70/1, annex.

implementation of the 2015-2020 Gender Plan of Action within the regional consultations on the post-2020 global biodiversity framework.

Item 9. Resource mobilization and the financial mechanism

Resource mobilization

The following is taken from recommendation 2/6 of the Subsidiary Body on Implementation

The Conference of the Parties

Financial reporting

1. *Takes note with appreciation* of the information provided by Parties through the financial reporting framework;

2. *Takes note* of the analysis of the information provided by Parties through the financial reporting framework, in particular the progress towards the targets adopted in decision XII/3, as contained in the note by the Executive Secretary on resource mobilization: stocktake and updated analysis of information provided through the financial reporting framework;[21]

3. *Reiterates* its invitation to Parties to report, using the online financial reporting framework, on their further contribution to the collective efforts to reach the global targets for resource mobilization, against the established baseline, in conjunction with their sixth national reports, by 31 December 2018;

Capacity-building and technical support

4. *Welcomes* the work of relevant organizations and initiatives, including the Biodiversity Finance Initiative of the United Nations Development Programme, to provide technical support and capacity-building for interested developing country Parties, in particular the least developed countries and small island developing States, as well as countries with economies in transition, including indigenous peoples and local communities and other relevant stakeholders within those countries, on the identification of funding needs, gaps and priorities, the development and implementation of national resource mobilization strategies, and on financial reporting, and invites the Biodiversity Finance Initiative and similar programmes or initiatives to further provide financial and technical support and capacity-building for interested developing country Parties to participate in the initiative;

5. *Invites* Parties and other Governments and donors, in accordance with their capabilities, to provide financial resources in accordance with Article 20 of the Convention for capacity-building and technical assistance as well as to facilitate technology transfer;

6. *Takes note* of the work undertaken by the Development Assistance Committee of the Organization for Economic Cooperation and Development to refine the Rio marker methodology, and the work of the Environmental Policy Committee of the Organization to track economic instruments and the finance they mobilize, and invites the Organization to continue and further intensify this work;

Milestones for the full implementation of Aichi Biodiversity Target 3

7. *Recognizes* the potential contribution of implementing Aichi Biodiversity Target 3 for the mobilization of financial resources from all sources;

8. *Notes with concern* the limited progress made in implementing Aichi Biodiversity Target 3 and the milestones for its implementation, in particular on the elimination, phase out, or reform of incentives, including subsidies, that are harmful for biodiversity, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socioeconomic conditions;

[21] CBD/SBI/2/7/Add.1. This reference may be updated at COP to reflect the updated analysis prepared pursuant to SBI recommendation 2/6.

9. *Encourages* Parties and other Governments to intensify their efforts to implement measures for the full implementation of Aichi Biodiversity Target 3, taking into account, as a flexible framework, the milestones adopted by the Conference of the Parties at its twelfth meeting,[22] consistent and in harmony with the Convention and other relevant international obligations, and taking into account national socioeconomic conditions;

10. *Welcomes* the work of relevant organizations and initiatives, including the Biodiversity Finance Initiative of the United Nations Development Programme, the United Nations Environment Programme, the Organization for Economic Cooperation and Development, the International Institute for Sustainable Development, and other partners, to provide analytical and technical support and capacity-building to the implementation of Aichi Biodiversity Target 3, and invites them to continue and further intensify this work;

11. *Notes* the useful role of national studies to identify harmful incentives and opportunities for removal or reform of harmful incentives, including subsidies, and in scoping and identifying the most effective policy action, *invites* interested organizations, such as the organizations and initiatives mentioned in the previous paragraph, to consider undertaking a systematic compilation and analysis of existing studies with a view to identifying good-practice methods for identifying harmful incentives and developing appropriate policy responses, and develop a standard or template for such standards as voluntary guidance;

12. *Requests* the Executive Secretary, subject to the availability of resources, to actively engage with partners facilitating the work referred to in paragraphs 4, 10 and 11 above;

Resource mobilization component of the post-2020 biodiversity framework

13. *Affirms* that resource mobilization will be an integral part of the post-2020 global biodiversity framework to be adopted by the Conference of the Parties to the Convention at its fifteenth meeting, and *decides* to initiate preparations on this component at an early stage in the process of developing the framework, in full coherence and coordination with the overall process for the post-2020 framework as agreed in decision 14/--;

14. *Requests* the Executive Secretary to explore options and approaches for mobilizing additional resources from all sources to support Parties in their work to implement the post-2020 biodiversity framework and to build on the experiences in implementing the Strategy for Resource Mobilization,[23] to inform the consultations in the preparatory process for the post-2020 global biodiversity framework and to report to the Subsidiary Body on Implementation at its third meeting.

Safeguards in biodiversity financing mechanisms

The following is taken from recommendation 2/17 of the Subsidiary Body on Implementation

The Conference of the Parties

Recalling decision XII/3, in which the Conference of the Parties adopted the voluntary guidelines on safeguards in biodiversity financing mechanisms,

1. *Highlights* with appreciation the convergence that is emerging between the existing processes for developing and/or improving safeguard systems of the financing mechanisms and the Convention's voluntary guidelines on safeguards in biodiversity financing mechanisms, and *encourages* all such processes to further refer to the guidelines in order to create greater convergence;

2. *Recognizes* the importance of tenure over traditional territories (lands and waters) of indigenous peoples and local communities for their survival and ways of life, and that holistic, solid safeguards backed by transparent accountability and constant vigilance are therefore required in line with international obligations and frameworks, such as the United Nations Declaration on the Rights of

[22] Decision XII/3.

[23] Decision IX/11, annex.

Indigenous Peoples,[24] and instruments, decisions and guidelines of the Convention on Biological Diversity, including with the full and effective participation of indigenous peoples and local communities and their free prior informed consent, prior informed consent or approval and involvement of indigenous peoples and local communities, in accordance with national processes, policies and legislation, as appropriate;

3. *Takes note*, in particular, of the processes undertaken by the operating entities of the financial mechanism of the United Nations Framework Convention on Climate Change to design, establish and apply safeguard systems that would cover all climate-related financing under their responsibility;

4. *Welcomes*, in particular, the Global Environment Facility's process to review and upgrade its environmental and social safeguards and the related systems of its agencies, noting that the result of such a process will be applicable to all projects funded by the Facility, and *invites* the Facility to inform the Conference of the Parties about how it is taking into account the Convention's voluntary guidelines on safeguards in biodiversity financing mechanisms in its important process;

5. *Urges* Parties, other stakeholder organizations and other institutions to continue using the Convention's voluntary guidelines on safeguards in biodiversity financing mechanisms in designing and operating their financing mechanisms and in setting up their safeguard systems, making use, as appropriate, of the checklist contained in the annex to the present decision;

6. *Also invites* Parties, other stakeholder organizations and other institutions to contribute views on experiences, opportunities and options to advance the application of the Convention's voluntary guidelines on safeguards in biodiversity financing mechanisms to the design and operation of biodiversity financing mechanisms;

7. *Requests* the Executive Secretary to compile further information on the use and value of the Convention's voluntary guidelines on safeguards in biodiversity financing mechanisms and other relevant guidance under the Convention by Parties, other stakeholder organizations and international institutions in relation to the development and application of relevant safeguard systems;

8. *Also requests* the Executive Secretary to include, for consideration as a possible element of work in the fully integrated programme of work on Article 8(j) and related provisions within the post-2020 biodiversity framework, the development of a post-2020 specific safeguards framework on indigenous peoples and local communities under the Convention, based on principles, standards and guidelines adopted under the Convention, and addressing any additional gaps identified, noting that an indicative list of possible elements and tasks will be developed for consideration by the Conference of the Parties at its fourteenth meeting and by the Working Group on Article 8(j) and Related Provisions at its eleventh meeting.

Annex

CHECKLIST OF SAFEGUARDS IN BIODIVERSITY FINANCING MECHANISMS UNDER THE CONVENTION ON BIOLOGICAL DIVERSITY

The following questions may be used as a checklist for complying with the Convention's voluntary guidelines on safeguards in biodiversity financing mechanisms.

Overall question on the purpose of the Convention's voluntary guidelines on safeguards in biodiversity financing mechanisms

Does the financing mechanism have a safeguard system designed to effectively avoid or mitigate its unintended impacts on the rights and livelihoods of indigenous peoples and local communities in accordance with national legislation, and to maximize its opportunities to support them?

Guideline A: The role of biodiversity and ecosystem functions for local livelihoods and resilience, as well as biodiversity's intrinsic values, should be recognized in the selection, design and implementation of biodiversity financing mechanisms.

[24] General Assembly resolution 61/295, annex.

A.1 Is the role of biodiversity and ecosystem functions for local livelihoods and resilience recognized in the selection, design and implementation of the mechanism?

A.2 Are biodiversity's intrinsic values recognized?

Guideline B: Rights and responsibilities of actors and/or stakeholders in biodiversity financing mechanisms should be carefully defined, at national level, in a fair and equitable manner, with the effective participation of all actors concerned, including the free prior informed consent, prior informed consent or approval and involvement of indigenous peoples and local communities, taking into account, the Convention on Biological Diversity and its relevant decisions, guidance and principles and, as appropriate, the United Nations Declaration of the Rights of Indigenous Peoples.

B.1 Are the rights and responsibilities of actors and/or stakeholders carefully and equitably defined?

B.2 Has there been effective participation of all actors concerned in the definition of such roles and responsibilities?

B.3 Has there been free prior informed consent, prior informed consent or approval and involvement of indigenous peoples and local communities in the definition of such roles and responsibilities?

B.4 Has the mechanism considered the Convention on Biological Diversity and its relevant decisions, guidance and principles and, as appropriate, the United Nations Declaration on the Rights of Indigenous Peoples?

Guideline C: Safeguards in biodiversity financing mechanisms should be grounded in local circumstances, should be developed in consistency with relevant country-driven/specific processes as well as national legislation and priorities, and take into account relevant international agreements, declarations and guidance developed under the Convention on Biological Diversity and, as appropriate, the United Nations Framework Convention on Climate Change, international human rights treaties and the United Nations Declaration on the Rights of Indigenous Peoples, among others.

C.1 Are the financing mechanism's safeguards grounded in local circumstances?

C.2 Are safeguards consistent with relevant country-driven/specific processes as well as national legislation and priorities?

C.3 Do they consider the instruments mentioned in point B.4 and the United Nations Framework Convention on Climate Change, international human rights treaties and others, as appropriate?

Guideline D: Appropriate and effective institutional frameworks are of utmost importance for safeguards to be operational and should be put in place, including enforcement and evaluation mechanisms that will ensure transparency and accountability, as well as compliance with relevant safeguards.

D.1 Are appropriate and effective institutional frameworks in place to ensure application of the safeguards?

D.2 Does the safeguard system include enforcement and evaluation mechanisms?

D.3 Are requirements of transparency and accountability included?

D.4 Are all stakeholders involved complying with relevant safeguards?

Additional questions elaborated from the relevant decisions, guidance and principles under the Convention on Biological Diversity would include the following:

E. Are there provisions to promote equity, or reduce risks of inequity, in benefit-sharing?

F. Are cultural impact assessment procedures included in safeguard instruments? Do they specifically include respect for the spiritual values of indigenous peoples and local communities?

G. Is customary use considered in avoidance of risks?

H. Are there safeguards in relation to the traditional knowledge of indigenous peoples and local communities, especially regarding the protection of their knowledge rights?

Methodological guidance concerning the contributions of indigenous peoples and local communities

The following is taken from recommendation 2/18 of the Subsidiary Body on Implementation

The Conference of the Parties,

Recalling decision XIII/20, in which the Conference of the Parties requested the Executive Secretary to develop elements of methodological guidance, concerning the contributions of indigenous peoples and local communities,

Recognizing the importance of the holistic collective actions of indigenous peoples and local communities in achieving the objectives of the Strategic Plan for Biodiversity 2011-2020[25] and the Aichi Biodiversity Targets within a framework of rights, ethical principles and values, governance, and differentiated roles of women and men among indigenous peoples and local communities;

1. *Welcomes* the indicative, non-exhaustive list of elements of methodological guidance for identifying, monitoring and assessing the contribution of indigenous peoples and local communities to the achievement of the objectives of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, contained in the annex to the present decision;

2. *Invites* Parties, other Governments, and relevant stakeholder organizations to make use of the guiding principles on assessing the contribution of collective action of indigenous peoples and local communities, contained in the annex to decision XIII/20, to consider using the indicative, non-exhaustive list of elements methodological guidance contained in the annex to the present decision, when designing and applying methodological approaches for assessing the contribution of indigenous peoples and local communities to the achievement of the objectives of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets and when reporting through the financial reporting mechanism.

Annex

LIST OF ELEMENTS OF METHODOLOGICAL GUIDANCE

Methodological approaches for identifying, monitoring, and assessing the contribution of indigenous peoples and local communities to the achievement of the objectives of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets are encouraged to make use of the guiding principles contained in decision XIII/20 of the Conference of the Parties to the Convention on Biological Diversity, to frame and guide the design and application of such methodologies, and are invited to consider the following indicative, non-exhaustive list of methodological elements in their design and application:

(a) Recognize and fully include traditional knowledge, ensuring the complementarity of knowledge systems, the creation of conditions for effective dialogue among knowledge systems, including science, and processes that allow the co-creation of knowledge from the start;

(b) Include a broad range of methodological approaches as required by the specificity of the contexts, taking into account the diversity of national circumstances and the cultural diversity of indigenous peoples and local communities, and apply them in a tailored manner in accordance with local circumstances;

(c) Recognize the multiple perspectives and world views related to values, including social, economic, cultural and spiritual values, attached to the conservation and sustainable use of biodiversity, and reflect them in the choice of methodological approaches and tools;

(d) Use mixed-methods for research and other methodologies that can work with different types of data, in particular the combination of quantitative and qualitative information and data;

(e) Apply multi-scale approaches, processes and tools, to capture and assess the situation at the local level and at the same time consider the links in the landscape and with national and subnational policy frameworks;

[25] Decision X/2, annex.

(f) Test and refine methodological approaches through pilot projects, recognizing that this is an emerging field and that they need to be developed through lessons coming from experience and from a diversity of contexts;

(g) Ensure full and effective participation of indigenous peoples and local communities throughout the process of developing and applying the approaches, with particular attention to the involvement of women, youth, elders and all other groups that are part of the communities;

(h) Encourage intergenerational interactions in the assessment processes, through the involvement of youth, elders and other groups, in order to stimulate learning and to contribute to protecting and promoting the intergenerational transfer of traditional knowledge, innovations and practices;

(i) Include in assessments the analysis of gender-differentiated roles, and explore opportunities and conditions for enhancing gender equality;

(j) Recognize that collective actions are related to customary sustainable use and that the outcomes may be broad, encompassing such matters as livelihoods and food security, as well as mental and physical well-being;

(k) Seek to contribute to the recognition of rights, particularly land tenure[26] and access to customary resources[27] and their influence on the effectiveness of collective action, and through community empowerment to advance security of tenure and access;

(l) Include other relevant elements of governance assessments, specifically the role, features and vitality of customary governance systems;

(m) Include, in the assessments, identification of actual or potential conflicts affecting collective actions, use the assessment processes to enhance dialogue among groups that may have competing interests, and explore further opportunities for resolving conflicts through dialogue and cooperation, including through culturally appropriate conflict resolution mechanisms;

(n) Consider area-based assessments that focus on the lands and resources owned, occupied or used by indigenous peoples and local communities, and on specific components of biodiversity, such as species occurring across habitats and which are subject to collective action;

(o) Consider the use of various forms of geospatial analysis for area-based assessments, in a way that combines technological tools with traditional knowledge, and seek to make them accessible to the communities;

(p) Advance the development of robust sets of indicators and metrics systems for the assessment of collective action, combining indicators of different types – quantitative and qualitative, process and outcome, single and aggregate, etc. — and integrating culture-based indicators that reflect the value systems of the communities and the particularities of the contexts, also noting that use of consistent indicators over time will enable comparisons at temporal scales and that establishing a baseline allows for a greater assessment of changes or trends;

(q) Integrate approaches to analyse the state and trends of change in the assessments, as well as understanding of the drivers of change and the conditions for successful outcomes;

(r) Advance the work on valuation methodologies that are relevant and applicable to the contexts, ensuring consideration of the full range of values of biodiversity for the communities and their collective action, and use the results of valuation to make the case for greater respect, recognition and support of collective action;

(s) Consider including, in the assessments, an analysis of strengths and threats in the specific contexts, with a view to improving understanding of factors and conditions requiring strengthening or additional support;

(t) Encourage collaboration, exchange, cross-learning, networking among different approaches, and seek greater synergies and concurrent outcomes.

[26] In decision X/43, the Conference of the Parties adopted "trends in land-use change and land tenure in the traditional territories of indigenous and local communities" as one of four global indicators for traditional knowledge, under the Convention on Biological Diversity. "Tenure" on traditional territories of indigenous peoples and local communities, may include lands and waters.

[27] In decision XII/12 B, annex, the Conference of the Parties adopted a global Plan of Action for Customary Sustainable Use of Biological Diversity.

Financial mechanism

The following is taken from recommendation 2/7 of the Subsidiary Body on Implementation

The Conference of the Parties

1. *Welcomes* the successful conclusion of the seventh replenishment of the Global Environment Facility Trust Fund, and *expresses its appreciation* for the continuing financial support from Parties and Governments for carrying out the tasks under the Strategic Plan for Biodiversity 2011-2020 in its remaining years, and for supporting the implementation of the post-2020 global biodiversity framework in its first two years;

2. *Notes* that the biodiversity programming directions for the seventh replenishment of the Trust Fund reflect the guidance adopted by the Conference of the Parties at its thirteenth meeting, which includes the consolidated guidance to the financial mechanism and the four-year framework of programme priorities (2018-2022), as well as further guidance;[28]

3. *Invites* Parties, while utilizing allocations from the seventh replenishment, to support the collective action and contributions of indigenous peoples and local communities towards achieving the Aichi Biodiversity Targets through, as appropriate, programmes, projects and activities of indigenous peoples and local communities including the Small Grants Programme of the Global Environment Facility;

4. *Invites* the Global Environment Facility, in line with the consolidated guidance provided in decision XIII/21, to continue to provide all eligible Parties with support for capacity-building:

(a) On issues identified by the Parties to facilitate further implementation of the Cartagena Protocol on Biosafety and Nagoya Protocol on Access and Benefit-sharing, including regional cooperation projects, with a view to facilitating the sharing of experiences and lessons learned and harnessing associated synergies;

(b) On the use of the Access and Benefit-sharing Clearing-House, on the basis of experiences and lessons learned during the Project on Continued Enhancement of Building Capacity for Effective Participation in the Biosafety Clearing-House and using resources under the biodiversity focal area;

5. *Notes* the ongoing review and updating against criteria of best practice of the Global Environment Facility's policy on safeguards and rules of engagement with indigenous peoples;

6. *Invites* the Global Environment Facility to continue its support for national implementation activities under the Strategic Plan for Biodiversity 2011-2020 in an efficient manner, with a view to enabling Parties to enhance progress towards the Aichi Biodiversity Targets by 2020;

7. *Encourages* the Executive Secretary to work closely with the Global Environment Facility in the transition to the post-2020 global biodiversity framework;

8. *Also encourages* the Executive Secretary to work closely with agencies associated with the Global Environment Facility in the transition to the post-2020 global biodiversity framework, taking into account the need to promote greater synergies between the Global Environment Facility and other financing mechanisms.

[28] See decision XIII/21.

Item 10. Capacity-building and technical and scientific cooperation

The following is taken from recommendation 2/8 of the Subsidiary Body on Implementation

The Conference of the Parties,

Capacity-building

Recalling decisions XIII/23 and XIII/24,

Taking note of the progress report on the implementation of the short-term action plan (2017-2020) to enhance and support capacity-building for the implementation of the Convention and its Protocols supported and facilitated by the Executive Secretary in collaboration with various partners,[29]

Noting with appreciation the support provided by Parties, other Governments and relevant organizations for capacity-building activities and technical and scientific cooperation activities to assist developing country Parties, in particular the least developed countries, small island developing States and countries with economies in transition, including countries that are centres of origin and diversity of genetic resources, indigenous peoples and local communities, women and youth,

Emphasizing the importance of careful prioritization of capacity-building needs in alignment with the post-2020 biodiversity framework,

Recalling decision XIII/23 paragraph 14, in which it invited Parties, other Governments and relevant organizations in a position to do so to provide financial, technical and human resources to support capacity-building and technical and scientific cooperation for developing country Parties, in particular the least developed countries, small island developing States and countries with economies in transition;

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

(a) To commission a study to provide an information base for the preparation of the framework in accordance with the terms of reference contained in the appendix to annex I hereto;

(b) To include, in the independent evaluation of the impacts, outcomes and effectiveness of the short-term action plan (2017-2020) requested in decision XIII/23, paragraph 15(g), monitoring and evaluation of the outcomes and effectiveness of ongoing capacity-building activities supported and facilitated by the Secretariat in the light of the contribution to the achievement of the Aichi Biodiversity Targets;

(c) To organize, in conjunction with the preparatory process for the post-2020 global biodiversity framework, regional and stakeholder-specific consultative workshops and online discussion forums to enable Parties to the Convention and Parties to its Protocols, as well as indigenous peoples and local communities and relevant organizations, including women's and youth organizations, to contribute to the preparation of the draft long-term strategic framework for capacity-building beyond 2020, taking into account the synthesis of views and information received;

(d) To submit a draft long-term strategic framework for capacity-building beyond 2020 aligned with the draft post-2020 biodiversity framework and the 2030 Agenda for Sustainable Development[30] for consideration by the Subsidiary Body on Implementation at its third meeting and for subsequent consideration by the Conference of the Parties at its fifteenth meeting;

2. *Invites* Parties, other Governments and relevant organizations, as appropriate, to provide financial and technical support for the organization of the regional consultative workshops and online discussion forums referred to above;

[29] Updated version of CBD/SBI/2/INF/6.

[30] See General Assembly resolution 70/1 of 25 September 2015.

Technical and scientific cooperation

Recalling decisions XIII/23, XIII/31, XII/2, X/16, IX/14, VIII/12 and VII/29 regarding technical and scientific cooperation and technology transfer,

Taking note of the report on the progress made to promote and facilitate technical and scientific cooperation, including the achievements made under the Bio-Bridge Initiative;[31]

3. *Invites* Parties, other Governments and relevant organizations in a position to do so to register as providers of technical assistance through the clearing-house mechanism;

4. *Invites* providers of technical and scientific assistance, including the Consortium of Scientific Partners, to communicate to the Executive Secretary through the clearing-house mechanism the priority themes, geographic coverage and types of services that they are able to offer to other Parties;

5. *Decides* to consider establishing at its fifteenth meeting an informal advisory committee on technical and scientific cooperation to be operational at the end of the mandate of the current Informal Advisory Committee to the Clearing-house Mechanism in 2020, to provide the Executive Secretary with advice on practical measures, tools and opportunities to promote technical and scientific cooperation for the effective implementation of the Convention;

6. *Requests* the Executive Secretary, in collaboration with partners and subject to the availability of resources, to further promote and facilitate technical and scientific cooperation, in particular the promotion of cooperation on training in DNA technologies, such as DNA barcoding for rapid species identification in countries and regions concerned, through the Global Taxonomy Initiative, as well as promotion of cooperation through the Bio-Bridge Initiative, and to submit a progress report for consideration by the Subsidiary Body on Implementation at its third meeting and by the Conference of the Parties at its fifteenth meeting;

Clearing-house mechanism

Noting the progress made with the implementation of the web strategy for the Convention and its Protocols and the development of national clearing-house mechanisms, including the roll-out of the Bioland tool by the Executive Secretary to assist Parties in the establishment or improvement of their national clearing-house mechanisms,[32]

7. *Invites* Parties and other Governments that do not have national clearing-house mechanisms and those wishing to redesign existing ones to use the Bioland tool developed by the Executive Secretary;

8. *Invites* Parties, other Governments and relevant organizations, as appropriate, to continue providing the necessary financial, technical and human resources to support the further development of national clearing-house mechanisms, or migration of existing national clearing-house mechanism websites to the Bioland tool;

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

(a) To continue to support the efforts of Parties to establish, sustain, and further develop their national clearing-house mechanisms, including through:

(i) Ongoing development and promotion of the Bioland tool;

(ii) Facilitating and organizing training, in collaboration with Parties and relevant organizations, to assist Parties in developing their national clearing-house mechanisms;

(b) To continue to implement the work programme for the clearing-house mechanism in support of the Strategic Plan for Biodiversity 2011-2020 and the 2030 Agenda for Sustainable Development with the guidance of the Informal Advisory Committee to the Clearing-House Mechanism;

---

[31] CBD/SBI/2/9.

[32] See CBD/SBI/2/9.

(c) To contribute to the development and testing of the Data and Reporting Tool, in collaboration with the InforMEA Initiative, with a view to learning from Parties' experiences in delivering their sixth national reports to the Convention on Biological Diversity, and facilitating its use for further reporting processes across the biodiversity-related conventions, as appropriate;

(d) To seek advice from the Informal Advisory Committee to the Clearing-house Mechanism on matters relating to technical and scientific cooperation in accordance with Article 18 for the duration of its current mandate;

(e) To submit a progress report on the above activities, including progress on the use of the Bioland tool and its effectiveness, to the Subsidiary Body on Implementation for consideration at its third meeting;

Annex I

ELEMENTS OF THE PROCESS FOR THE PREPARATION OF A LONG-TERM STRATEGIC FRAMEWORK FOR CAPACITY-BUILDING BEYOND 2020

A. Introduction

1. At its thirteenth meeting, the Conference of the Parties requested the Executive Secretary to initiate a process for preparing a long-term strategic framework for capacity-building beyond 2020, ensuring its alignment with the follow-up to the Strategic Plan for Biodiversity 2011-2020 and the work of the Protocols, and ensuring its coordination with the timetable for the development of the post-2020 global biodiversity framework, with a view to the timely identification of the priority capacity-building actions.

2. In paragraph 15(n) of decision XIII/23, the Conference of the Parties requested the Executive to prepare terms of reference for a study to provide the knowledge base for the preparation a long-term strategic framework for capacity-building beyond 2020, for consideration by the Subsidiary Body on Implementation at its second meeting and subsequently by the Conference of the Parties at its fourteenth meeting, ensuring that the study takes into account, inter alia, the implementation of the short-term action plan for capacity-building and relevant experiences reported by Parties in their national reports.

3. Under the Cartagena Protocol on Biosafety, the Conference of the Parties serving as the meeting of the Parties to the Protocol at its sixth meeting adopted a Framework and Action Plan for Capacity-Building for the Effective Implementation of the Protocol and agreed to review it at its eighth meeting (decision BS-VI/3). Following that review, Parties to the Protocol decided to maintain the Framework and Action Plan until 2020 (decision CP-VIII/3).

4. Similarly, the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol, in its decision NP-1/8, adopted a strategic framework for capacity-building and development to support the implementation of the Nagoya Protocol covering the period until 2020. In the same decision, the Executive Secretary was requested to prepare an evaluation of the strategic framework in 2019 and submit a report for consideration by the meeting of the Parties to the Nagoya Protocol in 2020 to facilitate the review and possible revision of the strategic framework in conjunction with the review of the Strategic Plan for Biodiversity 2011-2020.

B. Scope of the process for preparing the framework

5. The process will encompass the following tasks:

(a) Conduct a study to provide the knowledge base for the preparation the long-term strategic framework for capacity-building beyond 2020 in accordance with the terms of reference in the appendix below;

(b) Preparation of draft elements of the long-term strategic framework for capacity-building beyond 2020, taking into account information contained in the report on the above study, including the needs and circumstances of developing countries, in particular the least developed countries and small island developing States, and countries with economies in transition;

(c) The draft elements will include, inter alia, an overall vision and a theory of change defining bold long-term capacity development benchmarks and outcomes to support the transformational change towards achieving the 2050 Vision of "living in harmony with nature", general guiding principles, possible pathways to achieve effective

and impactful capacity development; and a monitoring and evaluation framework, including possible measurable intermediate and long-term capacity outcome indicators;

(d) Organization of regional consultative workshops and online discussion forums, carried out in conjunction with the preparatory process for the post-2020 global biodiversity framework.

6. Subject to the availability of funding, a consultancy firm will be engaged to conduct the study and prepare a draft study report as well as draft elements of the long-term strategic framework for capacity-building beyond 2020. The drafts will be discussed during the regional consultative workshops and online discussion forums to be organized by the Secretariat and relevant organizations in conjunction with the preparatory process for the post-2020 global biodiversity framework. The consultancy firm will integrate the input received through consultative workshops and online discussion forums into the final draft strategic framework for capacity development, which will then be submitted for consideration by the Subsidiary Body on Implementation at its third meeting and ultimately by the Conference of the Parties at its fifteenth meeting.

C. Indicative schedule of activities

7. The process for preparing a long-term strategic framework for capacity-building beyond 2020 will include the following activities, to be aligned with the timetable for the development of a follow-up to the Strategic Plan for Biodiversity 2011-2020:

Activity/Task	*Timeframe*	*Responsibility*
1. Invitation of Parties, indigenous peoples and local communities, women and youth and relevant organizations to submit information on capacity development needs and priorities, relevant experiences and lessons learned, as well as views/suggestions on possible elements of the long-term strategic framework for capacity-building beyond 2020, complementing information provided through the national reports	Aug-Nov 2018	Secretariat; Parties, indigenous peoples and local communities and relevant organizations
2. Submission of the national reports	Dec 2018	Parties
3. Independent evaluation of the outcomes and effectiveness of the short-term action plan (2017-2020) to enhance and support capacity-building for the implementation of the Convention and its Protocols	Jun-Dec 2019	Consultant
4. Conduct of the study to provide the knowledge base for the preparation the long-term strategic framework for capacity-building beyond 2020, including a desk review of relevant reports and documents; synthesis of the information received from Parties, indigenous peoples and local communities, and relevant organizations; and surveys/interviews with key stakeholders, including women's and youth organizations	Jan-April 2019	Consultant
5. Preparation of a draft study report based on the submissions received from Parties, indigenous peoples and local communities, women's and youth and relevant organizations and stakeholders and the review of the national reports and other relevant documents	April-May 2019	Consultant; Secretariat
6. Preparation of draft elements of the long-term strategic framework for capacity-building beyond 2020	May-June 2019	Consultant; Secretariat
7. Regional consultation workshops and online discussion forums on the draft study report and associated discussion papers and the draft elements of the long-term strategic framework for capacity-building beyond 2020 (in conjunction with the preparatory process for the post-2020 global biodiversity framework)	Jan-July 2019	Secretariat; consultant

Activity/Task	*Timeframe*	*Responsibility*
8. Submission of the revised study report and the revised draft elements of the long-term strategic framework for capacity-building beyond 2020	Aug 2019	Consultant;
9. Consultation workshop(s) on the revised draft elements of the long-term strategic framework for capacity-building beyond 2020	Sept-Oct 2019	Experts nominated by governments and relevant organizations
10. Preparation of the final draft long-term strategic framework for capacity-building beyond 2020, taking into account, inter alia, inputs from consultation workshops, relevant information provided in the fourth national reports under the Cartagena Protocol and relevant information provided in the interim national reports under the Nagoya Protocol	Nov 2019	Secretariat; consultant
11. Notification inviting views on the final draft long-term strategic framework for capacity-building beyond 2020	Dec 2019 - Feb 2020	Parties, indigenous peoples and local communities and relevant organizations
12. Consideration of the final draft long-term strategic framework for capacity-building beyond 2020 by the Subsidiary Body on Implementation at its third meeting	May/June 2020	Subsidiary Body on Implementation, third meeting

Appendix

TERMS OF REFERENCE FOR A STUDY TO PROVIDE AN INFORMATION BASE FOR THE PREPARATION OF THE LONG-TERM STRATEGIC FRAMEWORK FOR CAPACITY-BUILDING BEYOND 2020

A. Scope of the study and the process for preparing the framework

1. The study will encompass the following tasks:

(a) Take stock of the status of capacity development related to the implementation of the Convention and its Protocols, including major existing capacity development initiatives/programmes, tools, networks and partnerships;

(b) Identify and map the main providers of capacity-building support for the implementation of the Convention and its Protocols in various regions, including their competencies and strengths;

(c) Review the emerging experiences and lessons learned with the various capacity development delivery modalities and approaches used and assess their relative effectiveness and limitations;

(d) Identify the Parties' main capacity development and technological needs and gaps, including at the regional level;

(e) Analyse what has been done and the types of capacity development activities that have contributed to advancements made;

(f) Make recommendations on the general direction for the long-term framework for capacity-building beyond 2020 and the priority capacity-building actions to be taken to achieve the goals and targets of the follow-up to the Strategic Plan for Biodiversity 2011-2020.

B. Methodology and sources of information

2. The study will use the following data collection methods and will draw on a range of data sources:

(a) Desk review of relevant documents, including:

(i) The sixth national reports for the Convention;

(ii) Outcomes of the first Assessment and Review of the Nagoya Protocol;

(iii) The second (as baseline) and fourth national reports for the Cartagena Protocol on Biosafety;

(iv) The second edition of the *Local Biodiversity Outlook*;

(v) National capacity-building strategies and action plans;[33]

(vi) Reports of the evaluations of the strategic frameworks for capacity-building of the Nagoya Protocol and the Cartagena Protocol;

(vii) Report of the independent evaluation of the impacts, outcomes and effectiveness of the short-term action plan (2017-2020) to enhance and support capacity-building for the implementation of the Convention and its Protocols;

(viii) Reports of relevant studies, surveys and needs assessments conducted by relevant organizations;[34]

(ix) Evaluation reports of relevant capacity-building projects;

(b) Survey of Parties and key partners, including indigenous peoples and local communities, and women's and youth organizations, to identify, among other things, their priority capacity needs and required capacities over the next decade as well as potential offers of assistance and other capacity development opportunities, tools and services;

(c) Analysis of capacity-building needs and priorities and other relevant information made available through the clearing-house mechanism and the clearing-houses of the Protocols;

(d) Interviews with a representative sample of stakeholders, including CBD staff and representatives of Parties, indigenous peoples and local communities, partner organizations and other actors from different regions, including technical and scientific institutions and women's and youth organizations. The interviewees will be invited to share, inter alia, information and views regarding the observed strengths and weaknesses of various capacity development approaches and delivery modalities under difference circumstances, relevant experiences and lessons learned, examples of good practices that could be leveraged as well as views on possible drivers of transformational change for future capacity development.

Annex II[35]

DRAFT TERMS OF REFERENCE OF THE INFORMAL ADVISORY COMMITTEE ON TECHNICAL AND SCIENTIFIC COOPERATION

1. Background

1. Article 18 of the Convention on Biological Diversity requires Parties to promote technical and scientific cooperation in the field of conservation and sustainable use of biological diversity, including cooperation in human resources development and institution building, development and use of relevant technologies (including indigenous and traditional technologies), training of personnel, exchange of experts, and establishment of joint research programmes and joint ventures for development of relevant technologies.

2. In decisions XIII/23, XIII/31, XII/2, X/16, IX/14, VIII/12 and VII/29, the Conference of the Parties adopted a number of measures and provided guidance on various aspects relating to technical and scientific cooperation and technology transfer. The Bio-Bridge Initiative (BBI) was established at the twelfth meeting of the Conference of the Parties with initial support from the Government of the Republic of Korea to promote and facilitate technical and scientific cooperation for the effective implementation of the Convention. A Bio-Bridge Action Plan was launched in December 2016, at the thirteenth meeting of the Conference of the Parties, in Cancun, Mexico, to guide the activities and operations of the Initiative for the period 2017-2020.

2. Purpose

3. The Informal Advisory Committee shall provide advice to the Executive Secretary on ways and means to promote and facilitate technical and scientific cooperation among Parties to the Convention. In particular, the Informal Advisory Committee shall:

[33] As noted in CBD/SBI/2/2/Add.1, paragraph 12, 18 out of the 154 revised national biodiversity strategies and action plans submitted to the Secretariat include a national capacity development plan.

[34] Including the survey of national capacity development related to the implementation of biodiversity-related conventions conducted by the International Union for Conservation of Nature on behalf of the United Nations Environment Programme and the United Nations Development Programme report based on the analysis of over 140 national biodiversity strategies and action plans and the regional assessments carried out by Intergovernmental Science/Policy Platform on Biodiversity and Ecosystem Services.

[35] To be updated pursuant to paragraph 4 of SBI recommendation 2/8.

4. Provide timely advice and recommendations on practical measures, approaches and mechanisms to promote technical and scientific cooperation for the effective implementation of the Convention;

5. Provide strategic and programmatic guidance to the Bio-Bridge Initiative and other programmes contributing to the implementation of Article 18 and related provisions of the Convention, including the review and approval of their proposed programme priorities, work plans, progress reports and operational policies and procedures, including project selection criteria and procedures;

6. Monitor implementation of the Bio-Bridge Initiative and other programmes contributing to the promotion of technical and scientific cooperation;

7. Work closely with the Subsidiary Body on Technical and Technological Advice to provide the Executive Secretary with advice on the development and implementation of tools and mechanism to promote and facilitate technical and scientific cooperation, including guidance on the resolution of technical and practical issues relating to the clearing-house mechanism;

8. Provide advice and guidance on resource mobilization opportunities, sustainability and transformational plans to promote and facilitate technical and scientific cooperation.

9. The Secretariat of the Convention on Biological Diversity will serve the Informal Advisory Committee, including the provision of the necessary logistical and secretarial support for its work.

3. Membership

10. The Informal Advisory Committee shall comprise experts nominated by Parties to the Convention from each of the five regions as well as experts from indigenous peoples and local communities and relevant organizations including women's and youth organizations. Members of the Informal Advisory Committee are expected to be authorities in their respective fields of expertise, such as conservation and sustainable use of biodiversity, and/or describe relevant topics and drivers of change. Members shall be selected on the basis of the following criteria, as evidenced in their curriculum vitae:

11. At least five years of working experience on technical and scientific areas related to the implementation of the Convention on Biological Diversity and/or other biodiversity-related conventions;

12. Interdisciplinary expertise in science, technology and innovation relating to the themes outlined under Article 18 and other relevant provisions of the Convention, the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets;

13. Demonstrated experience with regional or international cooperation processes and capacity development programmes related to the Convention.

14. Members of the Informal Advisory Committee shall be selected through a formal nomination process based on the above criteria. The Executive Secretary may select experts for specific themes or issues to be discussed at each of the Informal Advisory Committee meetings, ensuring a balance of experts on matters related to the Convention. The members shall serve in their personal capacity and not as representatives of a Government, organization or other entity.

15. Members of the Informal Advisory Committee shall serve for a term of two years, with a possibility of renewal for one additional two-year term, subject to their contributions and achievements.

4. Modus operandi

16. The Advisory Committee shall meet face-to-face at least once per year, wherever possible in the margins of other relevant meetings. The frequency of meetings can be adjusted by the members as the need arises. The Committee will work intersessionally, as appropriate, via electronic means;

17. The Advisory Committee members shall not receive any honorarium, fee or other remuneration from the United Nations. However, costs for the participation of Committee members nominated by developing country Parties and Parties with economies in transition are covered, in line with the rules and regulations of the United Nations;

18. The Informal Advisory Committee shall elect a Chair to steer its meetings on a rotational basis. The Chair shall serve for a period of one year at a time;

19. The Informal Advisory Committee shall make its decisions and recommendations by consensus;

20. The Informal Advisory Committee may, at any time, revise its working methods by consensus;

21. The working language of the Committee shall be English.

Item 11. Knowledge management and communication

There are no draft decisions under this item.

Item 12. Mechanisms for national reporting, assessment and review

Process for aligning national reporting, assessment and review

The following is taken from recommendation 2/11 of the Subsidiary Body on Implementation

The Conference of the Parties,

Emphasizing the value of improving the alignment of national reports under the Convention and its Protocols in order to reduce reporting burdens,

Also emphasizing the value of enhanced synergies among the biodiversity-related conventions and the Rio conventions, and *noting* the progress made thus far in this respect, including the activities of the Liaison Group of Biodiversity-related Conventions and the Joint Liaison Group of the Rio Conventions, as well as relevant initiatives such as the development of the Data and Reporting Tool under InforMEA,

Recognizing the potential of the post-2020 global biodiversity framework in facilitating the alignment of national reporting under the Convention and its Protocols,

Also recognizing that the Convention and each of the Protocols are distinct legal instruments with specific obligations on their Parties, and that the information provided in the national reporting formats depends on the focus and goals of implementation strategies adopted under each instrument at a given time,

Noting the continued need for capacity-building and financial support for developing countries, in particular the least developed countries and small island developing States, and countries with economies in transition, for future reporting cycles under the Convention and its Protocols,

1. *Decides* to commence with synchronized reporting cycles for the Convention, the Cartagena Protocol and the Nagoya Protocol in 2023, and *invites* 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 to undertake the preparatory measures necessary for the realization of such synchronized reporting approaches and cycles;

2. *Encourages* Parties to explore possible synergies at the national level, involving all relevant biodiversity-related reporting processes, in order to enhance the alignment and consistency of information and data in national reports;

3. *Requests* the Executive Secretary, [subject to the availability of resources]:

(a) To assess the cost implications of the synchronized reporting cycles for the Convention, the Cartagena Protocol and the Nagoya Protocol starting in 2023 in order to inform the Global Environment Facility in connection with the preparation for the replenishment of the Trust Fund for the 2022-2026 cycle;

(b) To continue making efforts to improve and harmonize the user interface and the design of national reporting, including the online reporting tool, under the Convention and its Protocols, and to report to the Subsidiary Body on Implementation at its third meeting on the progress made;

(c) To draw upon experiences and lessons learned from the most recent reports of Parties to the Convention and to the Cartagena and Nagoya Protocols, in particular with respect to facilitating the further alignment of reporting processes;

(d) To identify, when preparing documentation related to the post-2020 global biodiversity framework, any implications and options for aligning national reporting under the Convention and its Protocols;

(e) To identify, in consultation with related convention secretariats, the Liaison Group of Biodiversity-related Conventions and the Joint Liaison Group of the Rio Conventions and, on the basis of suggestions from the informal advisory group on synergies among the biodiversity-related conventions, concrete actions to advance synergies on reporting, inter alia, through:

(i) Common indicators, where appropriate;

(ii) Reporting modules on shared issues;

(iii) Interoperability of information management and reporting systems;

(iv) Other options for increasing synergies in national reporting among the biodiversity-related conventions and the Rio conventions;

and assess the financial implications of such actions, and to report to the Subsidiary Body on Implementation at its third meeting;

(f) To continue to contribute to the monitoring process for the 2030 Agenda for Sustainable Development[36] and to explore synergies with the related reporting systems and tools for the Sustainable Development Goals, including in regard to methodological approaches;

(g) To contribute to the development, testing and promotion of the Data and Reporting Tool, in collaboration with the InforMEA Initiative, taking into account the experiences of Parties in preparing their sixth national reports to the Convention, with a view to facilitating the use of the Data and Reporting Tool across the biodiversity-related conventions, as appropriate;

(h) To evaluate the use by the Parties of online reporting tools for the sixth national report, the interim national report for the Nagoya Protocol and the national report for the Cartagena Protocol, to explore harmonization with the reporting systems used by related convention secretariats, and to report to the Subsidiary Body on Implementation at its third meeting;

(i) To continue providing capacity-building on the use of tools for the preparation and submission of national reports;

(j) To provide, in collaboration with relevant partners, guidance to Parties on sources of spatio-temporal data on biodiversity to support the analyses underlying the assessments of progress in national reports;

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

The following is taken from recommendation XXI/6 of the Subsidiary Body on Scientific, Technical and Technological Advice

---

The Conference of the Parties,

Recalling decision XIII/1, paragraphs 29 and 30,

1. *Emphasizes* the importance of sound evaluations of the effectiveness of policy instruments or measures in supporting the implementation of the Convention and the Strategic Plan for Biodiversity

[36] General Assembly resolution 70/1 of 25 September 2015.

2011-2020 and the need for associated capacity-building, and therefore *requests* the Executive Secretary to take both into account when preparing for the post-2020 global biodiversity framework and for the third meeting of the Subsidiary Body on Implementation;

2. *Also emphasizes*, in this context, the value of aligning indicators used across different reporting processes on biodiversity and sustainable development;

3. *Encourages* the use by Parties, other Governments, international organizations, indigenous peoples and local communities, the business sector and other stakeholders, as appropriate, of the information in the note by the Executive Secretary on tools to evaluate the effectiveness of policy instruments for the implementation of the Convention[37] when designing and undertaking evaluations of the effectiveness of measures taken to implement the Convention, including in the context of preparing their national reports;

4. *Requests* Parties and *invites* other Governments, international organizations, indigenous peoples and local communities, the business sector and other stakeholders to share, as appropriate through their national reports and the clearing-house mechanism and other appropriate means, information on the methodologies used in evaluations of the effectiveness of measures taken to implement the Convention, including case studies, as well as lessons learned from these evaluations;

5. *Requests* the Executive Secretary, for consideration by the Subsidiary Body on Implementation at its third meeting, to develop a tool kit to assist Parties, other Governments, international organizations, indigenous peoples and local communities, the business sector and other stakeholders in the implementation of evaluations of the effectiveness of measures, building on the guidance provided in the note by the Executive Secretary,[37] and on information submitted in accordance with paragraph 3 above.

Review mechanisms

The following is taken from recommendation 2/10 of the Subsidiary Body on Implementation

The Conference of the Parties,

Recalling decision XIII/25,

Recognizing that implementation by Parties and underlying commitments need to be strengthened to bring the global community on a path towards achieving the 2050 Vision laid out in the Strategic Plan for Biodiversity 2011-2020,[38]

Recognizing that elements of the multidimensional review approach under the Convention should be technically sound, objective, transparent, collaborative and constructive and aim to facilitate enhanced efforts by Parties,

Acknowledging that reviews should take into account the specific needs and circumstances of Parties and, noting national differences in approaches and visions,

Noting the importance of engaging holders of traditional knowledge in review mechanisms under the Convention,

1. *Acknowledges* that the voluntary peer-review process seeks to help Parties improve their individual and collective capacities to more effectively implement the Convention by:

(a) Assessing the development and implementation of national biodiversity strategies and action plans and producing specific recommendations for the Parties under review;

(b) Providing opportunities for peer learning for Parties directly involved and other Parties;

[37] CBD/SBSTTA/21/7.

[38] Decision X/2, annex.

(c) Enhancing transparency and accountability for the development and implementation of national biodiversity strategies and action plans to the public and other Parties;

2. *Welcomes* the progress made in the development of a voluntary peer-review mechanism, and the positive result from the pilot phase initiated through decision XIII/25;

3. *Decides* to include the voluntary peer review as an element of the multidimensional review approach under the Convention, and *requests* the Executive Secretary to facilitate its operationalization;

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

(a) To further develop, building on the elements of the multidimensional review approach described in the notes by the Executive Secretary on this matter,[39] for consideration by the Subsidiary Body on Implementation at its third meeting, options to enhance review mechanisms with a view to strengthening the implementation of the Convention, including an analysis of strengths and weaknesses and an indication of possible costs, benefits and burdens for Parties, other stakeholders and the Secretariat, also taking into account best practices and lessons learned in other processes and comments received at the second meeting of the Subsidiary Body on Implementation;

(b) To prepare for, and organize, the testing of a Party-led review process through an open-ended forum at the third meeting of the Subsidiary Body on Implementation, including by developing guidance for the voluntary delivery of review reports at the open-ended forum;

(c) To invite Parties to submit, on a voluntary basis, review reports for testing the open-ended forum at the third meeting of the Subsidiary Body on Implementation;

(d) To further consult with Parties and other stakeholders in order to explore possible modalities for applying approaches to enhancing the review of implementation in the process for the development of the post-2020 global biodiversity framework and to report on progress to the Subsidiary Body on Implementation at its third meeting;

(e) To explore possible modalities for applying such approaches to enhancing the review of implementation for consideration by the Subsidiary Body on Implementation at its third meeting;

(f) To facilitate further voluntary peer reviews and invite Parties to volunteer for a review and to nominate candidates for the review teams.

[39] As described in UNEP/CBD/SBI/1/10/Add.3 and CBD/SBI/2/11.

Item 13. Enhancing integration under the Convention and its Protocols with respect to provisions related to access and benefit-sharing and biosafety, and Article 8(j) and related provisions

Enhancing integration under the Convention and its Protocols with respect to provisions related to biosafety and provisions related to access and benefit-sharing

The following is taken from recommendation 2/14 of the Subsidiary Body on Implementation

The Conference of the Parties,

Provisions related to biosafety

Recalling the call to Parties to integrate biosafety within their national biodiversity strategies and action plans, national development plans and other relevant sectoral and cross-sectoral policies, plans and programmes, as appropriate, taking into account national circumstances, legislation and priorities,[40]

Noting the relationship between the biosafety-related provisions of the Convention, in particular its Articles 8(g) and 19, paragraph 4, and the Cartagena Protocol on Biosafety,

Recognizing that ratification and implementation of the Cartagena Protocol and the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress contribute to achieving the objectives of the Convention,

1. *Urges* Parties to the Convention on Biological Diversity that have not yet done so to deposit their instrument of ratification, acceptance, approval or accession to the Cartagena Protocol as soon as possible, and to take steps towards its implementation, including by establishing institutional structures and legislative, administrative and policy measures on biosafety;

2. *Reminds* Parties to the Convention on Biological Diversity that are not Parties to the Cartagena Protocol of their biosafety-related obligations under the Convention, and invites them to continue making relevant information available to the Biosafety Clearing-House and to submit the fourth national report under the Cartagena Protocol;

3. *Encourages* Parties to develop and implement national action plans for mainstreaming biosafety into national legal and policy instruments and to report on the progress in this regard in their national report;

4. *Invites* Governments and relevant organizations in a position to do so to provide technical and financial support to address needs for capacity-building and development activities, as well as financial resources to support ratification and implementation of the Cartagena Protocol;

5. *Agrees* to consider the addition of biosafety considerations to the post-2020 global biodiversity framework and national reporting format under the Convention, and to other areas of work under the Convention;

6. *Requests* the Executive Secretary, subject to the availability of resources and taking into account the objectives of the Convention, the Cartagena Protocol and the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress, to continue efforts to (a) integrate biosafety across the programmes of work of the Secretariat; (b) raise awareness of biosafety-related provisions of the Convention and the Cartagena Protocol; and (c) support Parties in efforts to integrate biosafety across various sectors at the national level;

[40] Decision XII/29, paragraph 9, and decision BS-VII/5, paragraph 10.

Provisions related to access and benefit-sharing

7. *Welcomes* the efforts made by Parties and non-Parties to the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization in ratifying and implementing the Protocol;

8. *Urges P*arties to the Convention on Biological Diversity that have not yet done so to deposit their instrument of ratification, acceptance or approval or their instrument of accession to the Nagoya Protocol as soon as possible, and to take steps towards its implementation, including by establishing institutional structures and legislative, administrative and policy measures on access and benefit-sharing, and to make relevant information available to the Access and Benefit-sharing Clearing-House;

9. *Requests* the Executive Secretary to support strategic communication to enhance awareness about the Nagoya Protocol and enhance its integration in various sectors;

10. *Urges* Parties to the Convention that are not yet Parties to the Nagoya Protocol to report on access and benefit-sharing implementation in their sixth national reports;

11. *Reiterates* the need for capacity-building and development activities as well as financial resources to support ratification and effective implementation of the Nagoya Protocol, and *invites* Governments and relevant organizations, where possible, to provide technical and financial support;

12. *Encourages* Parties to consider further the integration of access and benefit-sharing into other areas of work under the Convention as part of discussions on the post-2020 global biodiversity framework;

13. *Requests* the Executive Secretary to continue efforts to integrate access and benefit-sharing across the work of the Secretariat and to support Parties in efforts to integrate access and benefit-sharing across various sectors at the national level.

Integration of Article 8(j) and provisions related to indigenous peoples and local communities in the work of the Convention and its Protocols

The following is taken from recommendation 2/16 of the Subsidiary Body on Implementation

The Conference of the Parties,

Recalling decision V/16, in which it established the programme of work on Article 8(j) and related provisions, and decision X/43,[41] in which it revised the multi-year programme of work for 2010-2020,

Noting that postponed tasks 6, 11, 13, 14 and 17 of the multi-year programme of work have been addressed through the completion of other tasks under the work programme on Article 8(j) and related provisions,

Recognizing the need for a more holistic, forward-looking and integrated programme of work, taking into account recent developments, including the 2030 Agenda for Sustainable Development, its goals[42] and the Paris Agreement[43] as well as the future post-2020 biodiversity framework,

Taking into account the results of the "Múuch'tambal Summit on Indigenous and Local Experiences – Traditional Knowledge, Biological and Cultural Diversity – Mainstreaming the contribution

[41] In decision X/43, the Conference of the Parties adopted a revised multi-year programme of work on Article 8(j), retiring completed or superseded tasks 3, 5, 8, 9 and 16.

[42] See General Assembly resolution 70/1, entitled "Transforming our world: the 2030 Agenda for Sustainable Development".

[43] United Nations Framework Convention on Climate Change, Conference of the Parties, twenty-first session, decision 1/CP.21 (see FCCC/CP/2015/10/Add.1).

of Traditional Knowledge, Innovations and Practices across Agriculture, Fisheries, Forestry and Tourism Sectors for the conservation and sustainable use of Biodiversity for Well-being",[44]

Building on the composite report on the status and trends of traditional knowledge and the guidelines and other tools and standards already developed by the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions, including:

(a) The Akwé: Kon voluntary guidelines for the conduct of cultural, environmental and social impact assessments regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities;[45]

(b) The Tkarihwaié:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities;[46]

(c) The Mo'otz kuxtal[47] voluntary guidelines for the development of mechanisms, legislation or other appropriate initiatives to ensure the "prior and informed consent", "free, prior and informed consent" or "approval and involvement", depending on national circumstances, of indigenous peoples and local communities[48] for accessing their knowledge, innovations and practices, for fair and equitable sharing of benefits arising from the use of their knowledge, innovations and practices relevant for the conservation and sustainable use of biological diversity, and for reporting and preventing unlawful appropriation of traditional knowledge;[49]

[(d) The Rutzolijirisaxik Voluntary Guidelines for the Repatriation of Traditional Knowledge of Indigenous Peoples and Local Communities Relevant for the Conservation and Sustainable Use of Biological Diversity;][50]

(e) The global Plan of Action on the Customary Sustainable Use of Biological Diversity;[51]

Taking into account the joint programme of work between the Secretariat of the Convention on Biological Diversity and the United Nations Educational, Scientific and Cultural Organization on the links between biological and cultural diversity,[52]

[*Welcoming* the completion of work on task 15 by the adoption of the Rutzolijirisaxik Voluntary Guidelines for the Repatriation of Traditional Knowledge of Indigenous Peoples and Local Communities Relevant for the Conservation and Sustainable Use of Biological Diversity,][53]

Noting that tasks 1, 2, 4, as well as the implementation of the above-mentioned guidelines and standards adopted by the Conference of the Parties, represent ongoing responsibilities of Parties,

Emphasizing the need for the effective implementation of the guidelines and standards related to Article 8(j) and related provisions at the national level in order to achieve progress towards Aichi Biodiversity Target 18 of the Strategic Plan for Biodiversity 2011-2020,

---

[44] The "Múuch'tambal" Summit on Indigenous and Local Experiences was held on the margins of the thirteenth meeting of the Conference of the Parties. Its declaration was issued as UNEP/CBD/COP/13/INF/48.

[45] Decision VII/16.

[46] Decision X/42, annex.

[47] Meaning "roots of life" in the Maya language.

[48] The use and interpretation of the term "indigenous peoples and local communities" in these Guidelines should refer to decision XII/12 F, paragraph 2 (a), (b) and (c).

[49] Decision XIII/18.

[50] Due to be adopted by the Conference of the Parties at its fourteenth meeting, in response to tasks 7, 10 and 12 of the revised programme of work on Article 8(j) and related provisions.

[51] Decision XII/12 B, annex.

[52] See decision X/20 on cooperation with other conventions and international organizations and initiatives, in paragraph 16 of which the Conference of the Parties welcomed the Joint Programme of Work.

[53] Due to be adopted by the Conference of the Parties at its fourteenth meeting, in response to tasks 7, 10 and 12 of the revised programme of work on Article 8(j) and related provisions.

1. *Decides* to complete the current programme of work on Article 8(j) and related provisions no later than the fifteenth meeting of the Conference of the Parties;

2. *Also decides* to consider the development of a fully integrated programme of work on Article 8(j) and related provisions within the post-2020 biodiversity framework on the basis of achievements to date taking into account the ongoing and postponed tasks of Parties, also taking into account the 2030 Agenda for Sustainable Development, its goals[42] and the Paris Agreement[43] as well as gaps identified;

3. *Invites* Parties to gather experience in the implementation of the guidelines and standards related to Article 8(j) and related provisions at the national level and, in the light of those experiences, to consider the need for further work on these issues in the development of a fully integrated programme of work;

4. *Encourages* Parties to engage with indigenous peoples and local communities in the implementation of the Convention, including by recognizing, supporting and valuing their collective actions, including their efforts to protect and conserve their territories and areas, for the goals of the Convention, and, fully engage them in the preparation of national reports, the revision and implementation of national biodiversity strategies and action plans, and the process for developing the post-2020 biodiversity framework for the Convention;

5. *Invites* Parties and other Governments to report on the implementation of the programme of work on Article 8(j) and related provisions, in particular, tasks 1, 2 and 4 and the implementation of the Plan of Action on customary sustainable use, as well as the application of the various guidelines and standards developed under the aegis of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions and adopted by the Conference of the Parties, through the national reports or the clearing-house mechanism in order to determine progress made and inform the development of the post-2020 biodiversity framework;

6. *Requests* the Executive Secretary to facilitate an online forum inviting Parties, other Governments, indigenous peoples and local communities, other relevant organizations and interested stakeholders to have an initial exchange of views and information, as appropriate, on:

(a) Possible objectives to be considered to achieve an effective integration in the work of the subsidiary bodies on matters of direct relevance to indigenous peoples and local communities, and to enable full and effective participation of indigenous peoples and local communities in the work of the Convention;

(b) Possible elements of a programme of work on Article 8(j) and related provisions as part of the post-2020 biodiversity framework;

(c) Possible institutional arrangements, lessons learned and pros and cons of current arrangements;

7. *Also requests* the Executive Secretary to prepare and make available a summary of the exchange of views received during the online forum to the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions at its eleventh meeting;

8. *Invites* Parties, Governments, indigenous peoples and local communities, relevant international organizations, in particular other biodiversity-related conventions, and interested stakeholders to submit views to the Executive Secretary on possible elements of a fully integrated programme of work as part of the post-2020 biodiversity framework;

9. *Invites* Parties, Governments and indigenous peoples and local communities to submit views to the Executive Secretary on possible institutional arrangements and their modus operandi for the implementation of Article 8(j) and related provisions, such as, but not limited to, the following:

(a) Establishing a subsidiary body on Article 8(j) and related provisions with a mandate to provide advice to the Conference of the Parties, other subsidiary bodies, and, subject to their approval, the

Conference of the Parties serving as the meeting of the Parties to the respective Protocols, on matters that are relevant to indigenous peoples and local communities and are within the scope of the Convention;

(b) Continuing the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions with a revised mandate within the framework of the post-2020 biodiversity framework;

(c) Applying the enhanced participation mechanisms used by the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions for the participation of representatives of indigenous peoples and local communities, as appropriate, when addressing matters of direct relevance to indigenous peoples and local communities in the subsidiary bodies, in order to ensure their effective participation and to fully integrate them into the work of the Convention;

10. *Requests* the Executive Secretary to compile and analyse the information received with a view to proposing possible elements of a fully integrated programme of work as part of the post-2020 biodiversity framework as well as possible institutional arrangements and their modus operandi for the consideration of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions at its eleventh meeting;

11. *Also requests* the Executive Secretary to prepare a projection of the financial and governance implications of possible institutional arrangements for the implementation of Article 8(j) and related provisions for the biennium 2021-2022 for the consideration of the Subsidiary Body on Implementation at its third meeting;

12. *Requests* the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions to develop, at its eleventh meeting, proposals for possible future work, including proposals for a second phase of work on the Plan of Action on Customary Sustainable Use, as well as institutional arrangements and their modus operandi for consideration by the Subsidiary Body on Implementation at its third meeting in order to inform the development of a fully integrated programme of work as part of the post-2020 biodiversity framework which takes into account developments in other relevant international forums and organizations;

13. *Requests* the Executive Secretary, subject to the availability of resources, to extend appropriate assistance that enables representatives of indigenous peoples and local communities to participate effectively in broader discussions and processes under the Convention, including through regional consultations, which will determine the post-2020 biodiversity framework, in order to facilitate the integration of any further work on Article 8(j) and related provisions into the work of the Convention.

Item 14. Cooperation with other conventions, international organizations and initiatives

The following is taken from recommendation 2/9 of the Subsidiary Body on Implementation

The Conference of the Parties,

Recalling its decisions XIII/1, XIII/3, XIII/4, XIII/5, XIII/7, XIII/23, XIII/24, XIII/27 and XIII/28,

Recognizing the need to continue to strengthen collaboration and cooperation with other conventions, international organizations and partnerships with a view to expediting efficient and effective actions towards the achievement of the Strategic Plan for Biodiversity 2011-2020 and towards a comprehensive and participatory process to develop proposals for the follow-up to the Strategic Plan for Biodiversity 2011-2020,

1. *Invites* Parties and other Governments, other organizations, conventions and stakeholders, to consider possible new areas and approaches to advance the implementation of biodiversity commitments through enhanced cooperation as part of the post-2020 global biodiversity framework and to take into account lessons learned from existing cooperation, including with organizations and networks representing indigenous peoples and local communities, youth, women, academia and local authorities, as part of the process of developing the post-2020 biodiversity framework;

Cooperation with other conventions

2. *Welcomes* the work of other biodiversity-related conventions to enhance cooperation and synergies among the conventions in line with its decision XIII/24, including the relevant decisions of their governing bodies;[54]

3. *Recognizes* the importance of collaboration and cooperation among biodiversity-related conventions and other international conventions in implementing the 2030 Agenda for Sustainable Development and the Sustainable Development Goals;[55]

4. *Encourages* consideration of actions for enhanced synergies among biodiversity-related conventions and other conventions that also address issues related to the three objectives of the Convention in the development of the post-2020 global biodiversity framework, in particular as they are essential for the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals;

5. *Expresses its appreciation* for the work of the informal advisory group on synergies, which has contributed to the process of enhancing synergies among biodiversity-related conventions at the international level;

6. *Welcomes* the advice provided by the informal advisory group on synergies to the Executive Secretary, the Bureau and the Liaison Group of Biodiversity-related Conventions on prioritization and implementation of desirable key actions in the road map for enhancing synergies among the biodiversity-related conventions at the international level 2017-2020, as provided in the note by the Executive Secretary;[56]

7. *Invites* the governing bodies and the secretariats of the other biodiversity-related conventions, as well as other relevant organizations, to consider this advice, as appropriate and within their respective mandates and in line with national circumstances, to continue undertaking desirable key actions

[54] Resolution 11.10 (Rev.COP12) of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals, adopted at its twelfth meeting; and resolutions 9/2017 and 12/2017 of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture, adopted at its seventh session; and decisions of the Conference of the Parties to the Convention on Wetlands of International Importance, Especially as Waterfowl Habitat (Ramsar Convention), adopted at its thirteenth meeting, held in October 2018.

[55] General Assembly resolution 70/1 entitled "Transforming our world: the 2030 Agenda for Sustainable Development".

[56] CBD/SBI/2/10/Add.1.

on synergies and to be actively involved in the process of developing the post-2020 global biodiversity framework;

8. *Recognizes* the importance of enhancing synergies at the national level, and *encourages* Parties and *invites* other Governments, as appropriate to their national circumstances, as well as indigenous peoples and local communities, non-governmental organizations and other relevant organizations to continue to take action from among the options for enhancing synergies among the biodiversity-related conventions at the national level contained in annex I of decision XIII/24;

9. *Requests* the Executive Secretary to share the results of the work of the informal advisory group with organizations for which the implementation of the road map for enhancing synergies among the biodiversity-related conventions at the international level 2017-2020 is relevant;

10. *Requests* the informal advisory group on synergies, subject to the availability of resources, to continue to work during the forthcoming intersessional period, in close consultation with the Executive Secretary and the Bureau of the Conference of the Parties, to (a) monitor the implementation of the road map until the fifteenth meeting of the Conference of the Parties, and (b) provide the Secretariat with advice on ways to optimize synergies among the biodiversity-related conventions in the development of the post-2020 biodiversity framework, and (c) prepare a report to be made available by the Executive Secretary to the Subsidiary Body on Implementation at its third meeting for subsequent consideration by the Conference of the Parties at its fifteenth meeting;

11. *Requests* the Executive Secretary, subject to the availability of resources, and *invites* Parties to continue to support the work of the informal advisory group on synergies for the purposes outlined in paragraph 10 above;

12. *Requests* the Executive Secretary, subject to the availability of resources, to organize a workshop in early 2019, to facilitate, as appropriate, discussions among Parties of the various biodiversity-related conventions to explore ways in which the conventions can contribute to the elaboration of the post-2020 global biodiversity framework and, based on the respective mandate of each convention, to identify specific elements that could be included in the framework, and *invites* the members of the Liaison Group of Biodiversity-related Conventions to participate in the workshop, which should aim to enhance synergies and to strengthen cooperation among the biodiversity-related conventions, without prejudice to their specific objectives and recognizing their respective mandates and subject to the availability of resources for these conventions, with a view to enhancing their participation in the design of the post-2020 biodiversity framework;

13. *Acknowledges* the collaborative work done by the Executive Secretary, the United Nations Environment Programme and its World Conservation Monitoring Centre to implement key actions to enhance synergies at the international level, and *requests* the Executive Secretary, subject to the availability of resources, and *invites* the United Nations Environment Programme and other relevant international organizations, to continue to undertake such initiatives and activities in implementing the road map, taking into account the advice of the informal advisory group, as appropriate;

14. *Calls upon* Parties, in accordance with national priorities and capacity, in the light of the results of the consultation process conducted under the "Caring for Coasts" initiative, the resulting work plan presented in the information document issued by the Executive Secretary[57] and the related resolution adopted by the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals at its twelfth meeting,[58,59] to provide further support for the implementation of the activities of the proposed work plan, including, among other things, the global "Coastal Forum" focused on coastal wetland conservation;

[57] CBD/SBI/2/INF/20.

[58] Resolution 12.25 on promoting conservation of critical intertidal and other coastal habitats for migratory species.

[59] And any related resolutions adopted by the Conference of the Contracting Parties to the Convention on Wetlands of International Importance especially as Waterfowl Habitat at its thirteenth meeting.

15. *Requests* the Executive Secretary, subject to the availability of resources, to further coordinate the "Caring for Coasts" initiative with the secretariat of the Convention on the Conservation of Migratory Species of Wild Animals[60] and other relevant partners, in order to advance synergies in their work on the management and restoration of coastal ecosystems worldwide;

16. *Encourages* Parties to the Convention that are also Parties to the United Nations Framework Convention on Climate Change to consider, as appropriate, the relevance of their actions to implement the Convention on Biological Diversity, including their national biodiversity strategies and action plans, with actions for the achievement of their nationally determined contributions to the Paris Agreement;[61]

17. *Invites* Parties to the Convention that are also Parties to the United Nations Forum on Forests to consider, as appropriate, the relevance of their actions to implement the Convention on Biological Diversity, including actions under their national biodiversity strategies and action plans, in the design of their voluntary national contributions towards achieving one or more global forest goals and targets of the United Nations strategic plan for forests 2017-2030;[62]

18. *Invites* the Liaison Group of Biodiversity-related Conventions to consider ways and means of strengthening cooperation among the conventions in order to support their implementation by small island developing States in the context of existing strategic alliances, networks and initiatives and in the context of the implementation of the SAMOA Pathway;[63]

19. *Requests* the Executive Secretary to explore the possibility of cooperation with the conventions of the Antarctic Treaty System, relevant to biodiversity;

Cooperation with international organizations

20. *Welcomes* the consideration of the interlinkages between human health and biodiversity by the World Health Assembly at its seventy-first session;[64]

21. *Expresses it appreciation* for the effective cooperation of the Food and Agriculture Organization of the United Nations with the Convention, and, in this regard, *welcomes* (a) the operationalization of the Biodiversity Platform referred to in decision XIII/3, paragraph 6, (b) the completion and publication of the report on the *State of the World's Biodiversity for Food and Agriculture* referred to in decision XIII/3, paragraph 40, (c) the *Global Soil Biodiversity Atlas* prepared by the European Commission's Joint Research Centre and the Global Soil Biodiversity Initiative, (d) the commitments of the Global Soil Partnership and its Intergovernmental Technical Panel on Soils to promoting soil biodiversity, as evidenced by their work plans and awareness-raising efforts, including a planned international symposium in 2020, (e) the initiative of the Commission on Genetic Resources for Food and Agriculture to develop a work plan on microbes and invertebrates, including those relevant for soil biodiversity and the sustained provision of soil-mediated ecosystem functions and services essential for sustainable agriculture, and (f) the efforts made to improve the consistency of reporting on national data on primary forest area reported under the Global Forest Resources Assessment of the Food and Agriculture Organization of the United Nations;

22. *Invites* the Food and Agriculture Organization of the United Nations, in collaboration with other organizations and subject to the availability of resources, to consider the preparation of a report on the state of knowledge on soil biodiversity covering current status, challenges and potentialities and to make it available for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting held prior to the fifteenth meeting of the Conference of the Parties;

---

[60] And with the Secretariat of the Convention on Wetlands of International Importance especially as Waterfowl Habitat subject to any related resolution adopted by the Conference of the Contracting Parties at its thirteenth meeting.

[61] United Nations, *Treaty Series*, Registration No. I-54113.

[62] See Economic and Social Council resolution 2017/4 of 20 April 2017 (see also General Assembly resolution 71/285 of 27 April 2017).

[63] General Assembly resolution 69/15 of 14 November 2014, annex.

[64] The relevant resolution/decision will be provided when it becomes available at: http://apps.who.int/gb/e/e_wha71.html

23. *Requests* the Executive Secretary, subject to the availability of resources, to undertake the following actions:

(a) Continue to work with the Food Agriculture Organization to promote mainstreaming biodiversity in the agriculture, forestry and fisheries sectors;

(b) Review the implementation of the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity, in consultation with the Food and Agriculture Organization of the United Nations under the framework of the Global Soil Partnership as well as other interested partners, and prepare a draft plan of action for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting held prior to the fifteenth meeting of the Conference of the Parties;

(c) Continue to work with the Food and Agriculture Organization of the United Nations on the Global Forest Resources Assessment towards improved monitoring of progress under Aichi Biodiversity Target 5;

(d) Transmit the text of the present decision to the Director-General of the Food and Agriculture Organization of the United Nations;

24. *Recognizes* that the Joint Programme of Work on the links between biological and cultural diversity has been a useful platform for collaboration between the Secretariat and the United Nations Educational, Scientific and Cultural Organization in pursuit of common objectives with respect to nature and culture;

25. *Requests* the Executive Secretary to consult with the Secretariat of the United Nations Educational, Scientific and Cultural Organization with a view, subject to the availability of resources, to preparing options for possible elements of work aimed at a rapprochement of nature and culture in the post-2020 global biodiversity framework, for consideration by the Working Group on Article 8(j) at its eleventh meeting and the Subsidiary Body on Implementation at its third meeting, so that possible elements of work are considered along with other proposals in order to develop a fully integrated programme of work on Article 8(j) and related provisions in the post-2020 global biodiversity framework, at the fifteenth meeting of the Conference of the Parties;

26. *Also requests* the Executive Secretary to continue liaising with the World Trade Organization, undertaking technical collaboration on issues of joint interest, and following up on pending requests for observer status in relevant committees of the World Trade Organization;

27. *Further requests* the Executive Secretary, subject to the availability of resources, to further strengthen the collaboration of the Secretariat with the International Tropical Timber Organization under the Collaborative Initiative for Tropical Forest Biodiversity, which includes enhanced biodiversity conservation in production forests, improved conservation and management of protected areas, and sustainable management of tropical forests, including through the development of a communication strategy on the outcomes generated by the Initiative and how they support the achievement of the Strategic Plan for Biodiversity 2011-2020, and to report to the Subsidiary Body on Implementation at its third meeting;

28. *Requests* the Executive Secretary to enhance synergies and further strengthen cooperation with all relevant international and regional organizations and conventions working on marine litter and microplastics and with the work undertaken by the United Nations Environment Programme in this area, and, in order to improve governance strategies and approaches to combat marine plastic litter and microplastics, *also requests* the Executive Secretary to inform the United Nations Environment Programme and the Ad Hoc Open-Ended Expert Group established by the United Nations Environment Assembly of the work of the Convention on marine litter and to participate, as relevant, in its work;

Cooperation with inter-agency and coordination networks

29. *Welcomes* the adoption of the United Nations strategic plan for forests 2017-2030 and the Global Forest Goals and targets, which serve as a reference for the forest-related work of the United

Nations system and for fostering enhanced coherence, collaboration and synergies among United Nations bodies;

30. *Notes with appreciation* the analysis on the congruence among the forest-related Aichi Biodiversity Targets and other forest-related multilateral commitments and on options for further action to achieve the forest-related Aichi Biodiversity Targets, in a mutually supportive manner, primarily with regard to (a) the reduction of deforestation and forest degradation and (b) forest restoration;

31. *Requests* the Executive Secretary to continue to engage with the Collaborative Partnership on Forests on the further development of its work plan and joint initiatives to implement the United Nations strategic plan for forests 2017-2030 and the Global Forest Goals and their alignment with the Aichi Biodiversity Targets and to report to the Subsidiary Body on Implementation at its third meeting, and *encourages* member organizations of the Collaborative Partnership on Forests to further coordinate on biodiversity-relevant data and methodologies for the development of spatial assessments of opportunities to advance on biodiversity commitments through the work of the Global Forest Goals, REDD+ and the Global Partnership on Forest and Landscape Restoration, as appropriate;

32. *Requests* the Executive Secretary, subject to the availability of resources, to provide further guidance on the type of support that may be available to Parties from members of the Collaborative Partnership on Forests with regard to specific areas of implementation of the Convention, such as the Short-Term Action Plan on Ecosystem Restoration;[65]

33. *Notes with appreciation* the efforts by members of the Global Partnership on Forest Landscape Restoration to establish clear principles for the implementation of forest landscape restoration and to develop monitoring tools and protocols that account for the multiple dimensions of forest landscape restoration, including biodiversity, both as a means and an outcome of restoration interventions;

34. *Invites* Parties, in the implementation of their national strategies for forest landscape restoration, and in accordance with national priorities and capacity, to fully use the guidance provided in decision XIII/5 on ecosystem restoration: short-term action plan, especially its section on biodiversity considerations;

35. *Requests* the Executive Secretary to invite and mobilize the executive bodies of initiatives that have been established under the framework of the Strategic Plan for Biodiversity 2011-2020, such as the Satoyama Initiative, to continue building synergy in their implementation and contribute to the discussion on the post-2020 global biodiversity framework.

[65] Decision XIII/5, annex.

Item 15. Review of the effectiveness of processes under the Convention and its Protocols

Review of experience in holding concurrently meetings of the Conference of the Parties to the Convention, 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

The following is taken from recommendation 2/15, part A, of the Subsidiary Body on Implementation

The Conference of the Parties,

Recalling decisions XII/27, CP-7/9 and NP-1/12, XIII/26, XIII/33, CP-8/10 and NP-2/12,

Having reviewed the experience in holding concurrently meetings of the Conference of the Parties, 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, using the criteria determined in decisions XIII/26, CP-VIII/10 and NP-2/12, respectively, and *taking into account* the views of Parties, observers and participants at the thirteenth meeting of the Conference of the Parties to the Convention, the eighth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol and the second meeting of the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol, and through the surveys conducted after the meetings,

Recognizing that a further review will be undertaken at the fifteenth meeting of the Conference of the Parties to the Convention, the tenth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol and the fourth meeting of the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol,

1. *Notes with satisfaction* that the concurrent meetings have allowed for increased integration among the Convention and its Protocols, and improved consultations, coordination and synergies among the respective national focal points;

2. *Notes* that most of the criteria were considered as being met or partially met, and that further improvements in the functioning of the concurrent meetings are desirable, in particular to improve the outcomes and effectiveness of the meetings of the Parties to the Protocols;

3. *Reiterates* the importance of ensuring the full and effective participation of representatives of developing country Parties, in particular the least developed countries and small island developing States among them, and countries with economies in transition, in the concurrent meetings, and *highlights*, in this respect, the importance, in particular, of ensuring adequate participation of representatives in meetings of the Protocols by making funding available for such participation, including in intersessional meetings;

4. *Requests* the Bureau and the Executive Secretary, when finalizing the proposed organization of work for the fifteenth meeting of the Conference of the Parties to the Convention, the tenth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol and the fourth meeting of the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol, to take into account the present decision and the information contained in the note by the Executive Secretary;[66]

[66] CBD/SBI/2/16 and Add.1.

Procedure for avoiding or managing conflicts of interest in expert groups

The following is taken from recommendation 2/15, part B, of the Subsidiary Body on Implementation. The annex has been revised by the Executive Secretary in light of views submitted pursuant to paragraph 3 of SBI recommendation 2/15.

The Conference of the Parties,

Recognizing the critical importance of taking decisions on the basis of the best available expert advice,

Recognizing also the need to avoid conflicts of interest by members of expert groups established from time to time to develop recommendations,

1. *Approves* the procedure for avoiding or managing conflicts of interest contained in the annex to the present decision;

2. *Requests* the Executive Secretary to ensure the implementation of the conflict of interest management procedure with respect to the work of technical expert groups, in consultation with the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice or the Conference of the Parties, as appropriate.

Annex

PROCEDURE FOR AVOIDING OR MANAGING CONFLICTS OF INTEREST

1. Purpose and scope

1.1 The purpose of this procedure is to contribute to ensuring the scientific integrity of the work of expert groups, such as ad hoc technical expert groups, and to allow the Subsidiary Body on Scientific, Technical and Technological Advice and the Subsidiary Body on Implementation, as appropriate, to develop their conclusions and recommendations on the best available advice received from these expert groups, and/or to provide the Conference of the Parties to the Convention and the Conference of the Parties serving as the meetings of the Parties to the Cartagena Protocol and the Nagoya Protocol with credible, evidence-based and balanced information for taking decisions.

1.2 This procedure applies to experts nominated by Parties, other Governments, observers to the Convention and its Protocols and any body or agency, whether governmental or non-governmental, to serve as an expert member of an ad hoc technical expert group or other technical expert group. It does not apply to representatives of Parties or observers in intergovernmental meetings or in meetings of other bodies constituted with members representing Parties or observers.

1.3 For the purpose of this procedure a conflict of interest constitutes any circumstances that could lead a reasonable person to question either an individual's objectivity or whether an unfair advantage has been created. A conflict of interest refers to any current interest of an individual that could:

(a) Significantly impair the individual's objectivity in carrying out his or her duties and responsibilities for an expert group;

(b) Create an unfair advantage for any person or organization.

A distinction is made between "conflict of interest" and "bias". "Bias" refers to a point of view or perspective that is strongly held regarding a particular issue or set of issues. Holding a view that one believes to be correct, but that one does not stand to gain from personally, does not necessarily constitute a conflict of interest but may be a bias.

2. Requirements

2.1 Each expert is expected to act objectively, regardless of any government, industry, organizational or academic affiliation, to comply with the highest professional standards and to exhibit a high degree of professional conduct and integrity. .. Each expert is expected to disclose any situations, financial or

otherwise, that might affect the objectivity and independence of the contribution that the expert makes and thus affect the outcome of the work of the expert group.

2.2. Each expert nominated by a Party, a non-Party Government, or any body or agency, whether governmental or non-governmental, to serve as a member of an expert group, in addition to completing a nomination form,[67] will complete and sign a conflict of interest disclosure form as set out in the appendix below prior to the selection of members of the expert group concerned.

2.3 Unless otherwise decided, the requirement to disclose interests shall apply to every nominee and each expert group established by the Conference of the Parties to the Convention, the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety, and the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol on Access and Benefit-sharing, or by a subsidiary body.

2.4 When an expert already serving in an expert group is faced with a potential conflict of interest due to changed circumstances that affect the expert's independent contribution to the work of the expert group, the expert shall immediately inform the Secretariat of the situation.

3. Disclosure form

3.1 The conflict of interest disclosure form set out in the appendix below shall be used in connection with the designation and review of the status of nominees of members to an expert group.

3.2 The form will be made available in all six official languages of the United Nations.

4. Implementation

4.1 Nominations for membership to an expert group shall be accompanied by a conflict of interest disclosure form duly completed and signed by each nominee.

4.2 Upon receipt of nominations along with duly completed conflict of interest disclosure form, the Secretariat will review the information provided to identify whether a conflict of interest has been declared and, if so, whether it is related to the subject or work of the expert group concerned and may affect, or be reasonably perceived to affect, the expert's objective and independent judgment. The Secretariat will also review any steps the nominee has outlined to manage the conflict. If the declaration raises potential concerns, the Secretariat may seek further information from the expert, directly, or through the Party or observer concerned and may inform the relevant Bureau in line with paragraph 4.3 below.

4.3 Depending on the issue under consideration, the Bureau of the Conference of the Parties to Convention or to the Subsidiary Body on Scientific, Technical and Technological Advice, on the basis of an assessment by the Secretariat, and as appropriate in accordance with the modus operandi of the Subsidiary Body on Scientific, Technical and Technological Advice, will approve the nominees to be selected and invited to serve as members of the expert group concerned on the basis of: (a) the terms of reference of the expert group; (b) the criteria that may be set out in the notification for nominations; and (c) the review of information received through the conflict of interest procedure and any related consultations. As needed, the Bureau, through the Secretariat, may seek further information from the expert directly, or through the Party or observer concerned. Experts not selected to participate in an expert group solely as a result of a perceived conflict of interest will be informed of the rational behind the decision so that they may respond to any concerns.

4.4 As far as is possible, expert groups should be constituted so as to avoid conflicts of interest. However, recognizing that scientific integrity and access to the best available expertise and advice will require the participation of experts with relevant technical or scientific experience and expertise in the subject matter, in situations wherein it is impossible or impractical to constitute an expert group with the full range of expertise required for it to carry out its mandate effectively without including individual experts who are otherwise qualified but may have a potential conflict of interest, the Bureau, on the advice of the Secretariat, may include such experts in the group provided that: (a) there is a balance of such potential interests in a manner that serves the objectives of the Convention and the Protocols, as appropriate and which ensures that products from the expert group are comprehensive and objective (b) the experts agree to make information concerning the potential conflict of interest available to the expert group and available publicly; and (c) the experts agree to

[67] The nomination form is based upon the form required for the roster of experts under the Cartagena Protocol on Biosafety (decision BS-I/4, annex I, appendix).

endeavour to contribute to the work of the group with objectivity, and to recuse themselves where this is not possible or in doubt.

4.5 If the situation of an expert changes during the mandate of the expert group and the Secretariat is so informed, as specified in paragraph 2.4 above, or when the Secretariat observes a conflict of interest situation from the actions of an expert, the Secretariat will bring the issue to the attention of the chairperson of the expert group and/or to the attention of the relevant Bureau for their guidance and proceed according to their instructions

Appendix[68]

CONFLICT OF INTEREST DISCLOSURE FORM

Please sign and date the last page of this form and return it to the Executive Secretary of the Convention on Biological Diversity. Kindly retain a copy for your records.

Note: You have been nominated and provisionally identified to serve as an expert in the {name or description of the expert group} because of your professional standing and expertise. As outlined in the procedure for avoiding or managing conflicts of interest (decision 14/-), you are expected to disclose potential conflicts of interest that might affect your objective judgment and independence in making a contribution to the work of the Expert Group. Disclosure of certain matters is therefore necessary to ensure that the work of the Expert Group is not compromised by conflicts of interest. We are reliant on your professionalism, common sense and honesty in filling out this form.

You are required to disclose interests that are significant and relevant and relate or have the appearance of relating to your role in the Expert Group that could:

(a) Significantly impair your objectivity in carrying out your duties and responsibilities as a member of the Expert Group;

(b) Create an unfair advantage for you or any person or organization and which could result in you securing a direct and material gain from a specific outcome in the work of the Expert Group.

For the purposes of this requirement, circumstances that could lead a reasonable person to question your objectivity, or whether an unfair advantage has been created, constitute a potential conflict of interest and should be disclosed on this form. Disclosure of an interest on this form does not automatically mean that a conflict exists or that you will be unable to participate in the work of the Expert Group. If you are in any doubt about whether an interest should be disclosed, you are encouraged to disclose such interest.

The contents of this form will remain confidential to the Secretariat unless otherwise agreed by the expert completing the form.

Conflict of Interest Disclosure Form

(Confidential after completed, unless otherwise agreed by the person completing the form)

NAME: _____

ADDRESS: _____

_____

TELEPHONE: _____ EMAIL ADDRESS: _____

CURRENT EMPLOYER: _____

NOMINATED BY: _____

1. Are you involved in any significant and relevant professional or other activities that might be considered as constituting a conflict of interest?

___ Yes ____ No (if yes, please give details below)

_____

[68] This form is adapted from the Conflict of Interest Policy and Implementation Procedures adopted by the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services in its decision IPBES -3/3 and contained in annex II to that decision.
See https://www.ipbes.net/system/tdf/downloads/Conflict_of_interest_policy.pdf?file=1&type=node&id=15252&force=

Please list significant and relevant professional and other non-financial interests and activities that relate or may have the appearance of relating to your duties in the Expert Group and could be interpreted as:

(i) Significantly impairing your objectivity in carrying out your duties and responsibilities in the Expert Group;

(ii) Creating an unfair advantage for you or any person or organization.

2. Do you, your employer or the organisation nominating you have any financial interests in the subject matter of the work in which you will be involved that might be considered as constituting a conflict of interest?

___ Yes ____ No (if yes, please give details below)

_____

Please list any financial interests that relate or may have the appearance of relating to your duties in the expert group and could be interpreted as:

(i) Significantly impairing your objectivity in carrying out your duties and responsibilities in the Expert Group;

(ii) Creating an unfair advantage for you or any person or organization. These may include employment relationships, consulting relationships, financial investments, intellectual property interests and commercial interests and sources of private-sector research support.

3. Is there any other interest that could affect your objectivity or independence in the work in which you will be involved?

___ Yes ____ No (if yes, please give details below, including how you propose to manage the potential conflict of interest in order to remove or minimize it)

_____

Further details (if you answered "yes" to any of the questions 1–3 above):

_____

I hereby declare to the best of my knowledge that the information disclosed herein is complete and correct. I undertake to inform the Secretariat immediately of any change in my circumstances during the course of the work assigned to me.

I understand that information about my interests will be held by the Secretariat for a period of five years after the end of the activity to which I contributed, after which the information will be destroyed. Subject to the requirement to notify the existence of a conflict interest to the Secretariat under section 2 of the procedure for avoiding or managing conflicts of interest, I understand that, unless I agree to waive this provision, this form will be considered confidential and will be reviewed in accordance with the procedure specified in section 4 of the Procedure for Avoiding or Managing Conflicts of Interest.

I hereby declare that I will comply with the Procedure for Avoiding or Managing Conflicts of Interest contained in the annex to decision 14/-

_____ _____

Signature Date

Item 16. Second work programme of the Intergovernmental Platform on Biodiversity and Ecosystem Services

The following is taken from recommendation 22/10 of the Subsidiary Body on Scientific, Technical and Technological Advice

The Conference of the Parties,

Recalling decisions XII/25 and XIII/29,

1. *Welcomes* the progress in implementing the first work programme of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services;

2. *Also welcomes* the approval by the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to undertake the thematic assessment of the sustainable use of wild species, the thematic assessment of invasive alien species, and the methodological assessment regarding the diverse conceptualization of multiple values of nature and its benefits;

3. *Agrees* that the strategic framework up to 2030 and elements of the rolling work programme of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services should be relevant to the post-2020 global biodiversity framework, and will contribute to supporting its implementation and assessing progress, and *recognizes* that the rolling nature of the work plan should allow for ongoing exchange of information and further requests from the Convention in the light of the needs arising from the final form and implementation of the post-2020 global biodiversity framework;

4. *Notes* that the strategic framework up to 2030 and elements of the rolling work programme of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services is expected to be relevant to the 2030 Agenda for Sustainable Development,[69] and the Paris Agreement on Climate Change[70] and other biodiversity-relevant processes;

5. *Welcomes* the efforts of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to further enhance its cooperation with the Intergovernmental Panel on Climate Change, in developing and implementing its work programme, and *further notes* that the Convention will benefit from coherence between the scenarios and related assessments prepared in the context of biodiversity and climate change and the enhanced collaboration between the scientific communities related to these bodies;

6. *Recognizes* the benefits to the Convention of enhanced cooperation between the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and other relevant assessment activities undertaken by United Nations agencies and multilateral environmental agreements, and *invites* the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to continue to collaborate with relevant international organizations, including those engaged in activities relevant to the mainstreaming of biodiversity in production sectors;

7. *Invites* the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to consider the request contained in the annex to the present decision as part of its strategic framework and work programme towards 2030;

8. *Also invites* the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to allow for additional inputs to its work programme towards 2030 in the light of the development of the post-2020 global biodiversity framework;

[69] See General Assembly resolution 70/1 of 25 September 2015.

[70] United Nations, *Treaty Series*, No. 54113.

9. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to prepare, for consideration by the Conference of the Parties at its fifteenth meeting, proposals for a further request to the work programme towards 2030 of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services with a view to supporting the implementation of the post-2020 global biodiversity framework;

10. *Requests* the Executive Secretary, further to decision XII/25, to develop modalities for the systematic consideration of all deliverables of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, with a view to optimizing their use in support of the implementation of the Convention, and to report to the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting to be held prior to the fifteenth meeting of the Conference of the Parties.

Annex

REQUEST FOR CONSIDERATION BY THE INTERGOVERNMENTAL SCIENCE-POLICY PLATFORM ON BIODIVERSITY AND ECOSYSTEM SERVICES IN THE CONTEXT OF ITS STRATEGIC FRAMEWORK AND WORK PROGRAMME TOWARDS 2030

1. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services is invited to take into account the following considerations when developing its strategic framework and work programme towards 2030:

(a) The key scientific and technical needs for the implementation of the Strategic Plan for Biodiversity 2011-2020, endorsed in decision XII/1, remain valid and should therefore continue to be considered in the design and delivery of future activities of the Platform across all four of its functions;

(b) The scope and timing of a future global assessment, including consideration of a single assessment that integrates the regional and global components, including resource requirements for the regional components, should be considered carefully to serve the assessment needs arising from the post-2020 global biodiversity framework as well as the 2030 Agenda for Sustainable Development in relation to biodiversity and ecosystem services. Overlap with other activities, analyses and assessments, including possible future editions of the *Global Biodiversity Outlook*, should be minimized and synergies maximized;

(c) There is a strong need to further enhance cooperation with the Intergovernmental Panel on Climate Change, with a view to promoting coherence between the scenarios and related assessments prepared in the context of biodiversity and climate change, including consideration of joint assessment activities, and to fostering further enhanced collaboration between the scientific communities related to these bodies;

(d) There is a continued need for work on scenarios and models to assess pathways towards, and the transformational change required for, a sustainable future;

(e) The steps being taken by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to further integrate the four functions of the Platform will help to ensure that its deliverables are relevant to the work under the Convention;

(f) The knowledge and data gaps that have been identified in the first work programme should be addressed;

2. Noting that further scoping and prioritization of the needs of the Convention will arise from developing and implementing the post-2020 global biodiversity framework, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services is also invited to take into account the following initial requests for its rolling work programme towards 2030:

(a) Understand and assess the behavioural, social, economic, institutional, technical and technological determinants of transformational change, and how these may be deployed to achieve the 2050 Vision for Biodiversity;

(b) Develop a multi-disciplinary approach to understand the interactions of the direct and indirect drivers of biodiversity loss;

(c) Assess issues at the nexus of biodiversity, food and water, agriculture and health and nutrition, forestry and fisheries, considering trade-offs among these areas and related policy options regarding sustainable production and consumption, pollution and urbanization, including implications for energy and climate, taking into account the role of

biodiversity and ecosystem services in addressing the Sustainable Development Goals, with a view to enabling decisions that support the coherent policy and transformational change necessary to achieve the 2050 Vision for Biodiversity;

(d) Undertake methodological assessments on the effectiveness of various policy instruments and policy and planning support tools for understanding on how to achieve transformational change, and to characterize and quantify successful approaches and cases of the conservation and sustainable use of biodiversity, and their impacts;

(e) Assess the potential positive and negative impacts of productive sectors and undertake a methodological assessment of the criteria, metrics and indicators of the impacts of productive sectors on biodiversity and ecosystem services as well as the benefits derived from biodiversity and ecosystem services, with a view to enabling business to reduce such negative impacts and to promote consistency in assessment and reporting, taking into account the direct and indirect pressures on biodiversity as well as the interconnections between them.

Item 17. Long-term strategic directions to the 2050 Vision for Biodiversity, approaches to living in harmony with nature and preparation for the post-2020 global biodiversity framework

Scenarios for the 2050 Vision for Biodiversity

The following is taken from recommendation XXI/1 of the Subsidiary Body on Scientific, Technical and Technological Advice

The Conference of the Parties

1. *Welcomes* the conclusions of the Subsidiary Body on Scientific, Technical and Technological Advice regarding scenarios for the 2050 Vision for Biodiversity contained the annex to the present decision as well as the information contained in the notes by the Executive Secretary and supporting information documents,[71] noting their relevance to the discussions on the long-term strategic directions to the 2050 Vision for Biodiversity, approaches to living in harmony with nature and the process of developing a post-2020 global biodiversity framework;

2. *Invites* the scientific and other relevant communities working on scenarios and related assessments to take into account the following issues which are relevant to the development of the post-2020 global biodiversity framework:

(a) The broad range of underlying drivers and systemic and structural issues related to biodiversity loss;

(b) Combinations of policy approaches at multiple scales and under different scenarios;

(c) The identification of potential synergies, trade-offs and limitations related to biodiversity that should be considered in order to identify effective policies and measures to enable the achievement of the Sustainable Development Goals;

(d) The contributions of the collective action of indigenous peoples and local communities in the conservation of biological diversity and the sustainable use of its components;

(e) The consequences of alternative scenarios for the customary sustainable use of biodiversity by indigenous peoples and local communities;

(f) Scenario analyses on financing the post-2020 global biodiversity framework and the attainment of the 2050 Vision for Biodiversity;

(g) The potential positive and negative impacts of productive sectors such as inter alia agriculture, forestry and fisheries;

(h) Technology developments that may have positive or negative impacts on the achievement of the three objectives of the Conventions as well as on the lifestyles and traditional knowledge of indigenous peoples and local communities;

3. *Requests* the Executive Secretary, in collaboration with relevant partners, to facilitate capacity-building activities in accordance with decision XIII/23, especially for developing countries and countries with economies in transition, in particular the least developed countries and small island developing States, to enable all countries to participate in the development and application of scenarios;

4. *Recalling* decision XIII/22 on the framework for a communication strategy, *requests* the Executive Secretary to promote the use of scenarios as a communication tool for raising public awareness

[71] CBD/SBSTTA/21/2 and Add.1, CBD/SBSTTA/21/INF/2, INF/3, INF/4, INF/18. The information documents will be updated in the light of the peer review requested in Subsidiary Body recommendation XXI/1.

and to foster participation and involvement of all stakeholders, in particular academia and the scientific community, and to scale up global support for biodiversity concerns, including by engaging celebrities as biodiversity ambassadors from all regions who would to act as biodiversity voices.

Annex

CONCLUSIONS OF THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE REGARDING SCENARIOS FOR THE 2050 VISION FOR BIODIVERSITY

1. *The 2050 Vision of the Strategic Plan remains relevant and should be considered in any follow-up to the Strategic Plan for Biodiversity 2011-2020.* The 2050 Vision ("Living in harmony with nature" where "by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people") contains elements that could be translated into a long-term goal for biodiversity and provide context for discussions on possible biodiversity targets for 2030 as part of the post-2020 global biodiversity framework.

2. *Current trends, or "business-as-usual" scenarios, show continued loss of biodiversity*, with major negative consequences for human well-being, including changes that may be irreversible. Urgent action on biodiversity therefore remains a pressing global societal issue.

3. *Scenarios for future socioeconomic development demonstrate that there is a wide range of plausible futures* with respect to population growth, education, urbanization, economic growth, technological development and approaches to international trade, among other factors, leading to varying levels of drivers of ecosystem and biodiversity change, such as climate change, overexploitation, pollution, invasive alien species and habitat loss, including land use change. This range of plausible futures provides space for developing policy measures to achieve the 2050 Vision and other global goals.

4. *The biodiversity goals reflected in the 2050 Vision could be attained while also reaching broader socioeconomic objectives by deploying a combination of measures, including measures*: (a) to increase the sustainability and productivity of agriculture, increasing and making better use of biodiversity within agricultural ecosystems to contribute to increases in sustainable production; (b) to reduce ecosystem degradation and fragmentation and maintain biodiversity and ecosystem functions and services including through proactive spatial planning, the restoration of degraded lands and ecosystems and the strategic expansion of protected areas; (c) to reduce overexploitation of fisheries and other biological resources; (d) to control invasive alien species; (e) to adapt to and mitigate climate change; and (f) to reduce waste and excessive consumption.

5. *These measures could be developed in various "policy mixes" depending on the needs and priorities of countries and stakeholders*. For example, the combination of policy measures referred to in paragraph 4 above could vary with respect to the emphasis on changes in production and consumption, the degree of reliance on new technologies and international trade and the degree of global and local coordination such as illustrated by the three pathways identified in the fourth edition of the *Global Biodiversity Outlook*.[72] Further visioning exercises, at multiple scales and with strong stakeholder engagement are needed to further elucidate options and promote action.

6. *The pathways towards a sustainable future, while plausible, require transformational change*, including changes in behaviour at the levels of producers and consumers, Governments and businesses. Further efforts will be needed to understand motivations and facilitate change. Societal and disruptive technological developments can lead to transitions that may contribute to, or counter, sustainability and the achievement of the three objectives of the Convention. Governments and international institutions can play a critical role in establishing an enabling environment to foster positive change. Further work is required to identify ways and means by which the Convention and the post-2020 global biodiversity framework can leverage such change.

7. *A coherent approach is needed on biodiversity and climate change* to ensure that impacts on biodiversity of climate change are reduced, that biodiversity and ecosystems can contribute solutions related to climate adaptation and mitigation, and that climate change adaptation and mitigation measures do not negatively impact biodiversity through changes in land management.

[72] See also Leadley et al (2014), Progress towards the Aichi Biodiversity Targets: An Assessment of Biodiversity Trends, Policy Scenarios and Key Actions. Secretariat of the Convention on Biological Diversity, Technical Series 78 (https://www.cbd.int/doc/publications/cbd-ts-78-en.pdf), and Kok, & Alkemade (eds) (2014), How sectors can contribute to sustainable use and conservation of biodiversity, Secretariat of the Convention on Biological Diversity, and PBL Netherlands Environmental Assessment Agency, Technical Series 79 (https://www.cbd.int/doc/publications/cbd-ts-79-en.pdf)

8. *The 2050 Vision is consistent with the 2030 Agenda for Sustainable Development and other international goals*. Progress towards the 2030 Agenda for Sustainable Development would help to address many drivers of biodiversity loss and also support biodiversity objectives by creating a favourable enabling environment. The integrated and indivisible nature of the Agenda implies that the achievement of all goals is necessary, and scenarios and models may inform the choice of policies and measures and their limitations, highlighting the need for policy coherence.

9. *Scenarios and models may be useful in informing the development and implementation of the post-2020 global biodiversity framework*. The development of the current Strategic Plan for Biodiversity 2011-2020 was informed by biodiversity scenarios that include those developed for the third edition of the *Global Biodiversity Outlook*. There is also a potential for scenarios developed at appropriate scales to inform policymaking and implementation at the national level.

10. *Scenario analyses tailored to regional, national or local circumstances provide information to feed into strategic planning for conservation and sustainable use of biodiversity*. They can therefore directly support the development of national biodiversity strategies and action plans. Furthermore, the inclusion of participatory approaches in scenario analysis is a valuable tool for building the capacity for decision-making that focuses on the conservation and sustainable use of biodiversity. It can do this by allowing stakeholders to recognize the relationships between biodiversity and other sectors, and how enhanced benefits can increase human well-being.

Proposals for a comprehensive and participatory process for the preparation of the post-2020 global biodiversity framework

The following is taken from recommendation 2/19 of the Subsidiary Body on Implementation

The Conference of the Parties

1. *Adopts* the preparatory process for the development of the post-2020 global biodiversity framework,[73] and *requests* the Executive Secretary to facilitate its implementation, noting that the implementation of the preparatory process will require flexibility in order to adapt to changing circumstances and to respond to emerging opportunities;

2. *Decides* that the post-2020 global biodiversity framework should be accompanied by an inspirational and motivating 2030 mission as a stepping stone towards the 2050 Vision;

3. *Urges* Parties and *invites* other Governments, indigenous peoples and local communities, relevant international organizations, civil society organizations, women's and youth organizations, private and financial sectors and other stakeholders, to actively engage and contribute to the process of developing a robust post-2020 global biodiversity framework in order to foster strong ownership of the framework to be agreed and strong support for its immediate implementation;

4. *Also urges* Parties and *invites* other Governments, indigenous peoples and local communities, relevant international organizations, civil society organizations, women's and youth organizations, private and financial sectors and other stakeholders, to establish processes at the national, subnational and local levels, to facilitate dialogues on the post-2020 global biodiversity framework and to make the results of these dialogues available through the clearing-house mechanism of the Convention and other appropriate means;

5. *Welcomes* the advice for Parties, the Secretariat and other relevant organizations to enable a gender-responsive process for the development of the post-2020 global biodiversity framework,[74] and

[73] It is expected that the elements of the preparatory process, drawing on the elements in paragraphs 5 and 6 above and further consideration by the Conference of the Parties at its fourteenth meeting, would be annexed to the decision emanating from the discussions at the fourteenth meeting of the Conference of the Parties.

[74] To be developed pursuant to paragraph 8(c) of recommendation 2/19 of the Subsidiary Body on Implementation.

urges Parties, the Secretariat and other relevant organizations to consider this advice in their processes on the post-2020 global biodiversity framework;

6. *Invites* Parties, other Governments, all relevant organizations and stakeholders, including the private sector and youth, when organizing meetings and consultations relevant to biodiversity, to consider dedicated sessions or space to facilitate discussions on the development of the post-2020 global biodiversity framework;

7. *Invites* Parties, other Governments and all relevant organizations and stakeholders in a position to do so to provide timely financial contributions and other support to the process for developing the post-2020 global biodiversity framework, including by offering to host global, regional or sectoral consultations on this issue;

8. *Encourages* Parties and *invites* other Governments, indigenous peoples and local communities and all relevant organizations and stakeholders including the private sector to consider developing, prior to the fifteenth meeting of the Conference of the Parties, as appropriate to the national context, and on a voluntary basis, biodiversity commitments that may contribute to an effective post-2020 biodiversity framework, commensurate with achieving the 2050 Vision for Biodiversity, and to make information on these commitments available to the Executive Secretary;

9. *Invites* the General Assembly of the United Nations to convene a high-level biodiversity summit at the level of Heads of State/Heads of Government in 2020 in order to raise the political visibility of biodiversity and its contribution to the 2030 Agenda for Sustainable Development[75] as a contribution to the development of a robust post-2020 global biodiversity framework;

10. *Notes* that several of the biodiversity-related targets under the 2030 Agenda for Sustainable Development have endpoints of 2020, and *requests* the Executive Secretary to bring the preparatory process for the post-2020 global biodiversity framework to the attention of the General Assembly of the United Nations;

11. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice at its twenty-third meeting to contribute to the development of the scientific and technical rationale for the post-2020 biodiversity framework, on the basis of relevant information as outlined in the note by the Executive Secretary;[76]

12. *Also requests* the Subsidiary Body on Scientific, Technical and Technological Advice at its twenty-third and twenty-fourth meetings to review possible components for the post-2020 global biodiversity framework, for further consideration by the Subsidiary Body on Implementation;

13. *Requests* the Subsidiary Body on Implementation at its third meeting to review a draft of the post-2020 global biodiversity framework and to prepare a recommendation for the consideration of the Conference of the Parties.

[annex to be added]

[75] General Assembly resolution 70/1 of 25 September 2015.

[76] CBD/SBI/2/17, sects. IV and V.

Global Biodiversity Outlook

The following is taken from recommendation XXI/5 of the Subsidiary Body on Scientific, Technical and Technological Advice

The Conference of the Parties

1. *Recalls* decision XIII/29, in which it decided that the fifth edition of the *Global Biodiversity Outlook* should serve as a basis for the follow-up to the Strategic Plan for Biodiversity 2011-2020,[77] to be considered by the Conference of the Parties at its fifteenth meeting;

2. *Noting* the importance of the sixth national reports to the preparation of the fifth edition of the *Global Biodiversity Outlook* and, *recalling* decision XIII/27, *urges* Parties to submit their sixth national reports by 31 December 2018 at the latest;

3. *Also recalls* decision XI/2 and *highlights* the fact that the global and regional assessment on biodiversity and ecosystem services and the thematic assessments carried out by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, as well as other relevant national and subregional assessments, form an important evidence base for the assessment of progress towards the achievement of the Aichi Biodiversity Targets in the fifth edition of the *Global Biodiversity Outlook*;

4. *Takes note* of the plan and cost estimates for the preparation of the fifth edition of the *Global Biodiversity Outlook,* including the indicative time table contained in the annex to the present decision*,* and *requests* the Executive Secretary:

(a) To prepare the fifth edition of the *Global Biodiversity Outlook*, including a summary for policymakers, on the basis of this plan;

(b) To notify relevant partners and potential contributors about the time table for preparing the fifth edition of the *Global Biodiversity Outlook* and its related products;

(c) To continue collaborating with other biodiversity-related conventions and other relevant processes and organizations in the preparation and review of the fifth edition of the *Global Biodiversity Outlook*, as appropriate and in accordance with their respective mandates, including the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and the Food and Agriculture Organization of the United Nations, among others;

(d) To take into account the conclusions of the twenty-first meeting of the Subsidiary Body on Scientific, Technical and Technological Advice regarding scenarios for the 2050 Vision on Biodiversity contained in the annex to decision COP-14/--;[78]

5. *Urges* Parties and *invites* other Governments and relevant organizations to make available, in an open manner, accurate and reliable data and data updates on the status of, trends in, and projections for biological diversity as well as threats thereto, and on progress in the implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020, including with respect to mainstreaming activities;

6. *Invites* Parties, other Governments and relevant organizations, where possible, to provide timely financial contributions for the preparation and production of the fifth edition of the *Global Biodiversity Outlook* and its related products, including the second edition of *Local Biodiversity Outlooks*.

[77] Decision X/2, annex.

[78] See the draft decision of the Conference of the Parties contained in Subsidiary Body recommendation XXI/1.

Annex

Indicative timeline for the preparation of the fifth edition of the *Global Biodiversity Outlook*

Product/element	*Date*
IPBES Regional Assessments	**March 2018**
National report deadline	**31 December 2018**
Draft outline of report	December 2018
Preparation of first text elements	January 2019
IPBES Global Assessment	**May 2019**
Preparation of zero draft of report	May-August 2019
Review by invited experts	August-September 2019
Revision of draft	August-September 2019
Peer review by Parties and public	October-December 2019
Development of graphic elements	November 2019
SBSTTA-23	**November 2019**
Revision of draft of report	January-March 2020
Translation into official languages of the United Nations	March 2020
Layout	March-April 2020
Printing and dispatch to launch events	May 2020
SBSTTA-24/SBI-3	**May 2020**
Launch of the main report	May 2020
COP-15, CP/MOP-10; NP/MOP-4	**October 2020**

Item 18. Digital sequence information on genetic resources

The following is taken from recommendation 22/1 of the Subsidiary Body on Scientific, Technical and Technological Advice

[*The Conference of the Parties,*

Mindful of the three objectives of the Convention,

Recalling Articles 12, 15, 16, 17 and 18 of the Convention and decisions VIII/11, XII/29 and XIII/31,

[*Noting* the reports of discussions on this issue and related issues in other United Nations bodies, such as the Food and Agriculture Organization of the United Nations, the International Treaty on Plant Genetic Resources for Food and Agriculture, the World Health Organization and the World Intellectual Property Organization,]

1. *Notes* that the term "digital sequence information" may not be the most appropriate term to refer to the various types of information on genetic resources, and that it is used as a placeholder until an alternative term is agreed;

[2. *Recognizes* that digital sequence information includes information on nucleic acids and protein sequences as well as information derived from biological and metabolic processes specific to the cells of the genetic resource;]

3. *Recognizes* the importance of digital sequence information on genetic resources for the conservation of biological diversity and the sustainable use of its components while *emphasizing* that the three objectives of the Convention are interlinked and mutually supportive;

[4. *Recognizes* that digital sequence information on genetic resources has important and very positive effects on the conservation of biological diversity and sustainable use of its components as well as for protection of human, animal and plant health and for food security and safety;]

5. *Recognizes* that the use of digital sequence information on genetic resources and public access to this information contributes to scientific research [that is essential for the characterization, conservation and sustainable use of biological diversity and to food security, food safety and human health] [and provides multiple benefits to society] [which should be shared fairly and equitably];

[6. *Notes* that access to digital sequence information held in public databases is not subject to requirements for prior informed consent;]

[7. *Notes* that the creation of digital sequence information requires initial access to a physical genetic resource, and that, therefore, a benefit arising from the utilization of digital sequence information should be shared fairly and equitably in accordance with the third objective of the Convention, the objective of the Nagoya Protocol and Article 5(1) of the Nagoya Protocol and in a way that directly benefits indigenous peoples and local communities conserving biological diversity so that it serves as an incentive for conservation and sustainable use;]

8. *Recognizes* also that further capacity to use, generate and analyse digital sequence information on genetic resources is needed in many countries and *encourages* Parties, other Governments and relevant organizations to support capacity-building and technology transfer to assist in the use of digital sequence information on genetic resources to contribute to conservation and sustainable use of biodiversity;

[9. *Also recognizes* the need to strike a balance between the interest in open and free access to information on genetic resources and the interest in fair and equitable sharing of benefits with countries and communities providing these genetic resources from which the information was generated which may otherwise not benefit from the results of the research and development activities;]

[10. *Notes* that some Parties have implemented provisions that consider digital sequence information as equivalent to genetic resources;]

[11. *Acknowledges* that mutually agreed terms can cover benefits arising from the commercial use of digital sequence information on genetic resources;]

[12. *Also recognizes* that digital sequence information on genetic resources can facilitate misappropriation if it is used to bypass national access legislation and no alternative benefit-sharing measure is put in place;]

[13. *Acknowledges* that, according to Article 15.7 of the Convention and Article 5 of the Nagoya Protocol, benefits from the commercial use of the results of utilization of digital sequence information on genetic resources arising from access shall be shared in a fair and equitable way;]

[14. *Acknowledges also* that, according to Article 15.2 of the Convention and Article 8 of the Nagoya Protocol, the use of digital sequence information on genetic resources for non-commercial research and development should be subject to simplified measures according to domestic legislation, [taking into account the need to address a change of intent for such research highlighting that it is the sovereign right of a Party on how they wish to create conditions to promote and encourage research];]

[15. *Invites* Parties, other Governments, indigenous peoples and local communities, relevant organizations and stakeholders to facilitate access and support the exchange and use of digital sequence information [to further the three objectives of the Convention][to further the three objectives of the Convention, including for protection of human, animal and plant health and for food security][for purposes of conservation of biological diversity and sustainable use of its components as well as for protection of human, animal and plant health and for food security];]

16. *Invites* Parties, other Governments, indigenous peoples and local communities, and relevant stakeholders to submit views and information to clarify the concept of digital sequence information;

17. *Invites* Parties and other Governments to submit information on how they address digital sequence information in their domestic legislation and other measures related to digital sequence information on genetic resources;

[18. *Decides* to establish an [Ad Hoc Technical Expert Group[79]][open-ended working group] and *requests* the Executive Secretary, subject to the availability of financial resources, to convene a meeting of this group in accordance with the terms of reference contained in the annex;]

[19. *Decides* to establish an open-ended working group to develop modalities for sharing benefits from digital sequence information, including possible multilateral approaches and approaches for publically accessible databases, taking into account the report of the ad hoc technical expert group established pursuant to paragraph 18 above, to meet at least once in the next biennium and to report to the Conference of the Parties at its fifteenth meeting;]

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

(a) To compile and synthesize the views and information submitted;

[(b) To commission a [peer-reviewed] study on ongoing developments in the field of traceability, including how traceability is addressed by databases, and how these could inform discussions on digital sequence information on genetic resources;]

[(c) To commission a [peer-reviewed] study on benefit-sharing associated with digital sequence information, including examining different forms of benefit-sharing for non-commercial and commercial uses and how digitization of information in other sectors has impacted benefit-sharing, including possible lessons from the music, software, publishing and other industries;]

[79] The Ad Hoc Technical Expert Group will be convened in accordance with the modus operandi of the Subsidiary Body on Scientific, Technical and Technological Advice, except that there will be five experts nominated by each of the five regions.

(d) To make the studies and the synthesis of views available for the Parties and for the consideration of the Ad Hoc Technical Expert Group;

(e) To convene a moderated open-ended online forum to support the work of the Ad Hoc Technical Expert Group established in paragraph 10 above in meeting its terms of reference;

[21. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to consider the outcomes of the Ad Hoc Technical Expert Group and to make a recommendation for the consideration of the Conference of the Parties at its fifteenth meeting;]

22. *Recognizes* that the generation, use and management of digital sequence information is dynamic and subject to technological and scientific developments, and *notes* that regular horizon scanning of developments in the field of digital sequence information on genetic resources is needed for reviewing their potential implications for the objectives of the Convention and the Nagoya Protocol;

23. *Notes* that the issue of digital sequence information on genetic resources is being considered in a number of different international forums, and *requests* the Executive Secretary to continue to engage and collaborate with relevant ongoing processes and policy debates to collect information on current discussions on the use of digital sequence information on genetic resources of relevance to the Convention and the Nagoya Protocol.

[Annex

TERMS OF REFERENCE FOR THE SECOND AD HOC TECHNICAL EXPERT GROUP ON DIGITAL SEQUENCE INFORMATION ON GENETIC RESOURCES

The Ad Hoc Technical Expert Group shall:

(a) Take into account:

(i) The compilation and synthesis of views and information related to digital sequence information on genetic resources submitted pursuant to decision XIII/16;[80]

(ii) The fact finding and scoping study to clarify terminology and concepts and to assess the extent and the terms and conditions of the use of digital sequence information on genetic resources in the context of the Convention and the Nagoya Protocol prepared pursuant to decision XIII/16;[81]

(iii) The report of the first Ad Hoc Technical Expert Group on Digital Sequence Information on Genetic Resources;[82]

(b) Consider the synthesis of views and information and additional studies referred to in paragraph 20 (a), [(b)] and [(c)] of the decision;

(c) Clarify the concept of digital sequence information in the context of the Convention and the Nagoya Protocol and identify an operational term;

[(d) Consider how ongoing developments on traceability can inform discussions on digital sequence information on genetic resources;]

[(e) Consider simplified measures for utilization of digital sequence information on genetic resources;

(f) Consider mechanisms for the fair and equitable sharing of benefits derived from the commercial utilization of digital sequence information on genetic resources including the specific cases of transboundary situations or for which it is not possible to identify the country of origin of the genetic resource;

(g) Consider mechanisms to ensure compliance with benefit-sharing obligations from the utilization of digital sequence information on genetic resources as well as subsequent applications and commercialization;]

[80] CBD/SBSTTA/22/INF/2 and addenda 1 and 2.

[81] CBD/SBSTTA/22/INF/3.

[82] CBD/SBSTTA/22/INF/4.

(h) Meet at least once face-to-face, subject to the availability of financial resources, prior to the fifteenth meeting of the Conference of the Parties and make use of online tools to facilitate its work, as appropriate;

(i) Submit its outcomes for consideration by a meeting of the Subsidiary Body on Scientific Technical and Technological Advice to be held prior to the fifteenth meeting of the Conference of the Parties.]**]**

Item 19. Article 8(j) and related provisions

The Rutzolijirisaxik Voluntary Guidelines for the Repatriation of Traditional Knowledge Relevant for the Conservation and Sustainable Use of Biological Diversity

The following is taken from recommendation 10/1 of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions

The Conference of the Parties,

Recalling Article 17 of the Convention, which requires Parties to facilitate the exchange of information, from all publicly available sources, relevant to the conservation and sustainable use of biological diversity, including exchange of results of technical, scientific and socio-economic research as well as information on training and surveying programmes, specialized knowledge, indigenous and traditional knowledge, and where feasible, the repatriation of information,

Also recalling Article 18 of the Convention, which requires Parties, among other things, to promote technical and scientific cooperation as well as, in accordance with national legislation and policies, to encourage and develop methods of cooperation for the development and use of technologies, including indigenous and traditional technologies,

Emphasizing that the objective of the Rutzolijirisaxik[83] Voluntary Guidelines for the Repatriation of Traditional Knowledge Relevant for the Conservation and Sustainable Use of Biological Diversity is to facilitate the recovery of traditional knowledge relevant for the conservation and sustainable use of biological diversity, as stated in decision XIII/19,

Bearing in mind the importance of international cooperation for the repatriation of traditional knowledge relevant to the conservation and sustainable use of biological diversity and related and/or complementary information for indigenous peoples and local communities to facilitate the recovery of traditional knowledge of biological diversity, and *taking into account* the importance of indigenous peoples and local communities' governance for restoration and management of their traditional knowledge,

Considering the importance of the effective implementation of the various international arrangements, instruments, programmes, strategies, standards, guidelines, reports and processes of relevance, and maintaining their mutual supportiveness, taking into account national legislation, and without prejudice to the rights of indigenous peoples and local communities,

Also considering the complexities involved in relation to some of the concepts addressed in the Rutzolijirisaxik Voluntary Guidelines, such as "publicly available" traditional knowledge,

Stressing the importance of legality, transparency and mutual respect and understanding in relations between indigenous peoples and local communities, on the one hand, and academics, the scientific community, private sector, educational, governmental and other users of traditional knowledge of indigenous peoples and local communities, on the other,

1. *Adopts* the Rutzolijirisaxik Voluntary Guidelines for the Repatriation of Traditional Knowledge of Indigenous Peoples and Local Communities Relevant for the Conservation and Sustainable Use of Biological Diversity, hereinafter referred to as "the Rutzolijirisaxik Voluntary Guidelines";

[83] "Rutzolijirisaxik" means "Returning to one's place of origin" in the local traditional language, Maya Kaqchikel.

2. *Invites* Parties and other Governments, relevant organizations, and entities holding, storing or housing collections of traditional knowledge and related or complementary information, as well as indigenous peoples and local communities, and other stakeholders:

(a) To use the Rutzolijirisaxik Voluntary Guidelines, as appropriate, in their efforts to repatriate and restore traditional knowledge relevant for conservation and sustainable use of biological diversity to the original knowledge holders, and where applicable, facilitate the sharing of benefits arising from the use of traditional knowledge, in particular through mutually agreed terms;

(b) To promote the Rutzolijirisaxik Voluntary Guidelines through educational and awareness-raising activities, as appropriate;

(c) To make available through the Traditional Knowledge Information Portal and the clearing-house mechanism, where appropriate, best practices, lessons learned and good examples and benefits of repatriation of traditional knowledge relevant for conservation and sustainable use of biological diversity, and the fair and equitable sharing of benefits, including community-to-community exchanges and, where appropriate, through other knowledge sharing platforms;

(d) To report on experiences gained in using the Rutzolijirisaxik Voluntary Guidelines and, with a view to promote international, regional and bilateral cooperation, share best practices on relevant measures, where they exist, relating to repatriation of traditional knowledge, including repatriation of traditional knowledge shared across borders, through national reports, the clearing-house mechanism and the Traditional Knowledge Information Portal [84] as a contribution to reporting on progress in the implementation of Article 8(j) and related provisions to the Subsidiary Body on Implementation and the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions at their next meetings;

3. *Invites* the United Nations Educational, Scientific and Cultural Organization to take into account the Rutzolijirisaxik Voluntary Guidelines;

4. *Requests* the Executive Secretary, in collaboration with relevant organizations, to support and facilitate, as appropriate, efforts made towards the use of the Rutzolijirisaxik Voluntary Guidelines.

Annex

INTRODUCTION TO THE RUTZOLIJIRISAXIK VOLUNTARY GUIDELINES FOR THE REPATRIATION OF TRADITIONAL KNOWLEDGE OF INDIGENOUS PEOPLES AND LOCAL COMMUNITIES RELEVANT FOR THE CONSERVATION AND SUSTAINABLE USE OF BIOLOGICAL DIVERSITY

1. The international community has recognized the close and traditional dependence of many indigenous peoples and local communities on biological resources, notably in the preamble to the Convention on Biological Diversity. There is also a broad recognition of the contribution that traditional knowledge can make to both the conservation and the sustainable use of biological diversity - two fundamental objectives of the Convention - and of the need to ensure the fair and equitable sharing of benefits arising from the utilization of traditional knowledge. For this reason, Parties to the Convention have undertaken in Article 8(j), subject to their national legislation, to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.

2. To address the effective implementation of Article 8(j) and related provisions, in decision V/16, the Conference of the Parties to the Convention on Biological Diversity adopted the programme of work on Article 8(j) and related provisions, including task 15, in which it requested the Ad Hoc Open-ended Working Group on

[84] The Traditional Knowledge Portal, available at https://www.cbd.int/tk/default.shtml, is part of the clearing-house mechanism of the Convention on Biological Diversity.

Article 8(j) and Related Provisions to develop guidelines that would facilitate repatriation of information, including cultural property, in accordance with Article 17, paragraph 2, of the Convention on Biological Diversity in order to facilitate the recovery of traditional knowledge of biological diversity.

3. The Conference of the Parties further considered the task at hand in its decision X/43,[85] paragraph 6, and in its decision XI/14 D, annex, adopted terms of reference to advance the task clarifying that the purpose of task 15 was to develop best-practice guidelines for "the repatriation of indigenous and traditional knowledge relevant to the conservation and sustainable use of biological diversity, including of indigenous and traditional knowledge associated with cultural property, in accordance with Article 8(j) and Article 17, paragraph 2, of the Convention, in order to facilitate the recovery of traditional knowledge of biological diversity."

4. All tools and guidelines developed under the Working Group on Article 8(j) and related provisions are interrelated and mutually supporting, in particular the Mo'otz Kuxtal Voluntary Guidelines for Traditional knowledge.[86] The guidelines for the repatriation of traditional knowledge build on relevant decisions of the Conference of the Parties, including paragraph 23 of the Tkarihiwaié:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities Relevant to the Conservation and Sustainable Use of Biological Diversity,[87] as well as decision VII/16 with regard to registries and databases, and is complementary to other tools developed by the Working Group on Article 8(j) and Related Provisions and adopted by the Conference of the Parties to the Convention on Biological Diversity.

5. The Rutzolijirisaxik Voluntary Guidelines take into account the various international bodies, instruments, programmes, strategies, standards, guidelines, reports and processes of relevance and the importance of their harmonization and complementarity and effective implementation, including the United Nations Declaration on the Rights of Indigenous Peoples,[88] as appropriate, and in particular the mandate of United Nations Educational, Scientific and Cultural Organization concerning cultural property, as well as the World Intellectual Property Organization, which has the mandate to deal with intellectual property issues.

6. As such, they highlight the importance of international cooperation for the repatriation of traditional knowledge, including by providing access to traditional knowledge and related or complementary information for indigenous peoples and local communities, in order to facilitate the repatriation of traditional knowledge relevant to conservation and sustainable use of biological diversity, to assist these communities in knowledge and cultural restoration.

RUTZOLIJIRISAXIK[89] VOLUNTARY GUIDELINES FOR THE REPATRIATION OF TRADITIONAL KNOWLEDGE RELEVANT FOR THE CONSERVATION AND SUSTAINABLE USE OF BIOLOGICAL DIVERSITY

I. OBJECTIVES

7. The objective of the Rutzolijirisaxik Voluntary Guidelines is to facilitate the repatriation of the traditional knowledge of indigenous peoples and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity, including related or complementary information, in accordance with Article 8(j) and Article 17, paragraph 2, of the Convention, in order to facilitate the recovery of traditional knowledge relevant for the conservation and sustainable use of biological diversity,[90] and without limiting or restricting its ongoing use and access,[91] unless under mutually agreed terms.

8. The guidelines may also assist in the effective implementation of the global Plan of Action on Customary Sustainable Use of Biological Diversity, endorsed by the Conference of the Parties in decision XII/12 B.

II. PURPOSE

[85] See decision X/43, annex, paragraph 1

[86] The Mo'otz Kuxtal[86] Voluntary Guidelines for Traditional knowledge were adopted by the Conference of the Parties in decision XIII/18. "Mo'otz Kuxtal" means "roots of life" in the Maya language.

[87] Decision X/42, annex, Tkarihiwaié:ri Code of Ethical Conduct, paragraph 23.

[88] General Assembly resolution 61/295, annex.

[89] "Rutzolijirisaxik" means "Returning to one's place of origin" in the local traditional language, Maya Kaqchikel.

[90] Decision XI/14 D, annex, terms of reference for repatriation guidelines.

[91] This paragraph does not preclude the application of any provision of the Nagoya Protocol, as appropriate.

9. For the purposes of the Rutzolijirisaxik Voluntary Guidelines, "repatriation" in the context of traditional knowledge relevant for conservation and sustainable use of biological diversity, means "the return of knowledge, innovations and practices of indigenous peoples and local communities[92] to where it originated or was obtained for the recovery, revitalization, and protection of knowledge on biological diversity".[93]

10. The guidelines are intended to be practical guidance to Parties, Governments,[94] international and regional organizations, museums, universities, herbaria, botanical, and zoological gardens, databases, registers, gene-banks, libraries, archives and information services, private collections, private sector and other entities holding, storing or housing traditional knowledge and related or complementary information, and indigenous peoples and local communities, in efforts to repatriate traditional knowledge.

11. The guidelines are a guide to good practice which will need to be interpreted taking into account the political, legal, economic, environmental and cultural diversity, as appropriate, of each Party, Government, institution, entity and indigenous peoples and local communities, and applied in the context of each organization's mission, collections and the relevant communities, taking into account community protocols and other relevant procedures.

12. The guidelines are not prescriptive or definitive.

13. Given the political, legal, economic, environmental and cultural diversity of States, institutions and entities, and indigenous peoples and local communities that may be involved in repatriation, it is unlikely that these guidelines will cover all the issues that may arise in professional practice. However, they should provide practical guidance for those wishing to pursue repatriation.

14. The guidelines should enable those working on repatriation, including information professionals,[95] to make sound judgments regarding appropriate responses to any relevant issues, or to provide some ideas about where to go for assistance if more expertise is required.

15. The guidelines should assist indigenous peoples and local communities in the recovery, revitalization and protection of their traditional knowledge related to conservation and sustainable use of biological diversity.

III. SCOPE

16. The Rutzolijirisaxik Voluntary Guidelines apply to the knowledge, innovations and practices of indigenous peoples and local communities, relevant for the conservation and sustainable use of biological diversity.

IV. GUIDING PRINCIPLES FOR REPATRIATION

17. Repatriation is best facilitated building on the following principles and considerations:

(a) Whenever possible, indigenous peoples and local communities should be entitled to repatriation of their traditional knowledge, including from across international borders, to assist them with the recovery of traditional knowledge relevant to the conservation and sustainable use of biological diversity;

(b) Underpinning successful repatriation efforts is the concept embedded in Article 8(j) of "respect" for traditional knowledge, taking into account the United Nations Declaration on the Rights of Indigenous Peoples and other instruments, as appropriate;[96]

---

[92] The traditional knowledge in question may include related or complementary information.

[93] See the note by the Executive Secretary on development of best-practice guidelines for the repatriation of traditional knowledge relevant to the conservation and sustainable use of biological diversity (UNEP/CBD/WG8J/8/5), para. 13.

[94] Including subnational governments and government departments, which may hold indigenous and/or local community traditional knowledge and related or complementary information relevant to the conservation and sustainable use of biological diversity.

[95] An information professional is someone who collects, records, organizes, stores, preserves, retrieves, and disseminates printed or digital information. The term is most frequently used interchangeably with the term "librarian" (see *U.S. Occupational Outlook Handbook* (2008-2009 edition), p. 266), or as a progression of it. Librarians traditionally managed information contained in books or other paper records. Nowadays, however, libraries make extensive use of modern media and technology; hence, the role of librarians has been enhanced. The versatile term "information professional" is also used to describe other, similar, professions, such as archivists, information managers, information systems specialists, and records managers (see *Introduction to the Library and Information Professions*, by Roger C. Greer, Robert J. Grover, Susan G. Fowler, pp. 12-15). Information professionals work in a variety of private, public and academic institutions.

(c) Respect for traditional knowledge implies respect for, inter alia, the values, practices, world views, customary laws, community protocols, rights and interests of indigenous peoples and local communities, consistent with international obligations and national circumstances;

(d) Repatriation requires the development of enduring relationships with indigenous peoples and local communities, in order to build trust, good relations, mutual understanding, intercultural spaces, knowledge exchanges and reconciliation. Such relationships can be mutually beneficial and embody the concept of reciprocity;[97]

(e) Repatriation efforts should be forward-looking, should foster the building of relationships, and should encourage the creation of intercultural spaces and the co-sharing of knowledge;

(f) Preparedness of institutions holding, storing or housing traditional knowledge and related or complementary information relevant for conservation and sustainable use of biological diversity, to repatriate, including preparedness to cooperate with indigenous peoples and local communities to develop appropriate measures, is essential for a successful process;

(g) Repatriation may require assisting indigenous peoples and local communities to be prepared to receive and keep safe, repatriated traditional knowledge and related information, in culturally appropriate ways, as specified by them;

(h) Parties, repatriating institutions and entities should recognise the importance of repatriating secret or sacred, gender-specific or sensitive traditional knowledge[98] as identified by the relevant indigenous peoples and local communities, as a priority for indigenous peoples and local communities;

(i) Repatriation can be enhanced by developing the awareness and professional practice of those working on repatriation, including information professionals and indigenous peoples and local communities, in accordance with best practice ethical standards, including the Tkarihwaié:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities Relevant to the Conservation and Sustainable Use of Biological Diversity;[99]

(j) Repatriation includes recognition and support of community-to-community efforts to restore traditional knowledge relevant to conservation and sustainable use of biological diversity;

(k) Repatriation may include efforts to restore indigenous peoples and local communities governance of their traditional knowledge, and may involve prior and informed consent, free prior and informed consent or approval and involvement, as appropriate, mutually agreed terms and benefit-sharing arrangements, when appropriate;

(l) Repatriation of traditional knowledge and related information should facilitate the exchange of information, rather than limit or restrict it, while respecting the rights of the original holder of such knowledge and not impede the use of traditional knowledge that is publicly available in the Party, institution or entity that decides to repatriate it.

V. GOOD PRACTICES AND ACTIONS UNDERTAKEN AT VARIOUS LEVELS, INCLUDING THROUGH COMMUNITY-TO-COMMUNITY EXCHANGES, TO REPATRIATE, RECEIVE AND RESTORE TRADITIONAL KNOWLEDGE RELEVANT FOR THE CONSERVATION AND SUSTAINABLE USE OF BIOLOGICAL DIVERSITY

18. The following good practices and actions to repatriate traditional knowledge aim to provide advice to institutions and entities where traditional knowledge and related information may be held, stored or housed and which

---

[96] Article 8(j) calls on Parties, subject to their national legislation, to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.

[97] See paragraph 32 on the principle of reciprocity in the Tkarihwaié:ri Code of Ethical Conduct on Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities Relevant for the Conservation and Sustainable Use of Biological Diversity, adopted in decision X/42 and available at https://www.cbd.int/doc/publications/ethicalconduct-brochure-en.pdf

[98] And related or complementary information

[99] See decision X/42.

serve indigenous peoples and local communities and/or hold materials with indigenous peoples and local community content or perspectives. These may include but are not limited to: government departments, international organizations, private sector, museums, herbaria, botanical, and zoological gardens, databases, registers, gene-banks, libraries, archives, private collections and information services. These good practices and actions cover such areas as governance, management and cooperation.

19. The following elements are arranged in sequential order; however, Parties and others using the Rutzolijirisaxik Voluntary Guidelines may wish to consider these, as they see fit, taking into account the unique circumstances of each Party, institution or entity.

A. Procedural considerations

1. Establish a team

20. Depending on the repatriating institution, consider the establishment of a team with technical expertise, guided by a multi-stakeholder committee, in order to build relationships between the relevant indigenous peoples and local communities and institutions and other entities holding traditional knowledge. Indigenous peoples and local communities should effectively participate in such arrangements.

21. Indigenous peoples and local communities participating in multi-stakeholder committees for repatriation may be best placed to identify whether there are community protocols and/or customary processes in place for the return of traditional knowledge.

2. Training the actors in the repatriation process

22. The various actors involved in repatriation, including staff of repatriating institutions and entities, representatives of relevant indigenous peoples or local communities may require training on repatriation. Training can equip indigenous peoples and local communities with the knowledge and skills needed to effectively participate in a repatriation process, while, at the same time, indigenous peoples and local communities could also play a role in training various other actors to ensure cultural sensitivities and requirements involved in repatriation processes are taken into account. Training may also assist the various actors involved in agreeing on common understandings of terms used in the repatriation process.

23. Training can also assist staff of repatriating institutions and entities to be aware of issues such as indigenous peoples' and local communities' rights and issues related to their traditional knowledge, as well as assist in the development of agreements for a repatriation process. Cross-cultural training for staff of institutions holding, storing or housing traditional knowledge and for indigenous peoples and local communities may assist in increasing mutual understanding and in establishing successful repatriation processes. Staff from repatriating institutions or entities should be encouraged to also, where appropriate, and available, undertake training on the customs, worldviews and/or priorities of the indigenous peoples and local communities relevant to their institution or collections prior to repatriation and in an ongoing manner building enduring relationships. Indigenous peoples and local communities who have written about libraries and other resource centres have invariably mentioned how important it is to feel comfortable in them. Friendly, culturally aware/sensitive staff will mean that indigenous peoples and local communities do not feel intimidated by an alien cultural system or inadvertently made to feel inferior, if they do not know how to find information. These suggestions imply that the institutions or entities interested in repatriation of traditional knowledge should be prepared.[100]

24. Training could take into account experiences gained and lessons learned in other repatriation processes, as appropriate.[101]

3. Identification of collections that hold, store or house traditional knowledge and related or complementary information for possible repatriation

25. After creating a multi stakeholder team and training the participants, the initial concrete step in a repatriation process is to identify collections and content[102] for possible repatriation.

26. It is for each institution or entity holding, storing or housing traditional knowledge and related information to identify content in collections for possible repatriation and to make decisions regarding repatriation. At the same time indigenous peoples and local communities may wish to assist such institutions or entities holding, storing or housing

[100] Which is complementary to Procedural consideration 7 on "preparedness to receive"

[101] Note that tangible cultural heritage, such as artefacts, as well as human remains, fall under the mandate of UNESCO.

[102] Traditional knowledge and related or complementary information

traditional knowledge in identifying content for possible repatriation, and initiate requests to examine collections of information or knowledge in order to identify content, possibly leading to requests to repatriate.

27. The identification of elements of traditional knowledge for possible repatriation may require regional or international cooperation as per the Convention's Article 17 on exchange of information. Article 17 requires contracting Parties to facilitate the exchange of information, from all publicly available sources, relevant to the conservation and sustainable use of biological diversity, including specialized knowledge, indigenous and traditional knowledge, including, where feasible, repatriation of related or complementary information.

28. *Related or complementary information* to be taken into account when repatriating traditional knowledge could include, but is not limited to, information about when, where, how and from whom the knowledge in question was first accessed or collected, the arrival of the knowledge in institutions and entities holding traditional knowledge (such as place and date) and initial contacts in those places, and/or indigenous and traditional knowledge associated with cultural property.[103] Such information may assist in identifying the original knowledge holders.

29. Related or complementary information could also include information, such as geo-referenced species level data and related information, and other types of information held in collections or databases that may be useful to supplement repatriated traditional knowledge for the conservation and sustainable u se of biological diversity.

4. Identification of the origin of the traditional knowledge and related or complementary information for possible repatriation

30. Identification of the origin of the traditional knowledge in question may depend upon access to "related or complementary information", such as when the traditional knowledge in question was acquired, where, how, from whom and in what form as well as geo-referenced species level data and related information, and other types of information held in collections or databases that may be useful to supplement repatriated traditional knowledge for the conservation and sustainable use of biological diversity.

31. Indigenous peoples and local communities should effectively participate in identifying origins of the traditional knowledge in question and in some case may be guided by oral histories and other forms of information.

32. Parties and Governments should consider proactive arrangements to facilitate the identification the origins of traditional knowledge and of the original knowledge holders. Such arrangements could include requirements in national law for authors to state the origin of access to traditional knowledge in all publications, uses, developments and other disseminations.

5. Identification of the original traditional knowledge holders

33. Paramount to successful repatriation of traditional knowledge is the identification of the original traditional knowledge holders.

34. In order to identify the original traditional knowledge holders, firstly the origin of the traditional knowledge in question, including when it was acquired, where, how, from whom and in what form, should be established.[104] In such cases, above-mentioned related or complementary information may be of assistance.

35. The processes of indigenous peoples and local communities for the repatriation of traditional knowledge may include drawing on their oral histories and traditions to identify: where traditional knowledge may be held, stored or housed; when, where and from whom the knowledge in question was collected and in what form; and information about the arrival of the knowledge in those places, including dates and initial staff contacts in those places storing or using traditional knowledge.

36. Oral histories combined with efforts by institutions to make their collections publicly available may assist in identifying the original holders for potential repatriation.

---

[103] The terms of reference adopted in decision XI/14 D states: The purpose of task 15 is to develop best-practice guidelines that would facilitate enhancement of the repatriation of indigenous and traditional knowledge relevant to the conservation and sustainable use of biological diversity, including of indigenous and traditional knowledge associated with cultural property, in accordance with Article 8(j) and Article 17, paragraph 2, of the Convention, in order to facilitate the recovery of traditional knowledge of biological diversity.

[104] May include traditional knowledge held in other countries (such as loans or collections), or in transboundary situations.

37. Government departments, institutions and entities holding, storing or housing traditional knowledge should work in partnership with the relevant indigenous peoples and local communities and ensure their full and effective participation in identifying the original knowledge holders.[105]

6. Agreements for repatriation

38. In order to clarify a repatriation process, indigenous peoples and local communities may wish to identify their customary procedures or develop community protocols that address repatriation of traditional knowledge.[106]

39. In general, agreements to repatriate should recognize any rights that the original traditional knowledge holders may have, including the right to prior and informed consent, free, prior and informed consent or approval and involvement, to the repatriation process for the traditional knowledge concerned, and aim to develop mutually agreed terms for a repatriation process.

40. Institutions and entities[107] interested in repatriating traditional knowledge may be able to adapt standard framework agreements, such as memorandums of understanding or cooperation to include repatriation of traditional knowledge. These framework agreements may be useful mechanisms for guiding repatriation, especially from the institution's perspective.

41. If the repatriation process builds on framework agreements combined with community protocols or customary procedures, the process is more likely to meet the needs of the different actors involved in a repatriation process.

42. Additionally, in order to facilitate repatriation processes, it is advisable to keep administrative measures and costs to a minimum.

43. Any agreement may consider the inclusion, where appropriate, of provisions for the use of dispute resolution processes in cases of disputes concerning repatriation.

7. Preparedness to receive

44. From an indigenous peoples and local community perspective "preparedness to receive" includes the ability of the relevant indigenous peoples and local communities to receive, store and restore traditional knowledge and the development of local mechanisms for the protection and promotion (including intergenerational transfer) of traditional knowledge and safeguard strategy. This may involve the reintroduction, re-establishment or restoration of related biological resources, such as traditional crops and animal breeds, in accordance with national legislation.

45. Thus, indigenous peoples and local communities seeking the repatriation of traditional knowledge and/or related or complementary information should be prepared to receive returned traditional knowledge and consider appropriate infrastructure,[108] as needed, for holding and safe-keeping of returned traditional knowledge.

46. Those Parties, Governments, institutions and entities interested or engaged in repatriation are encouraged to support indigenous peoples and local communities to be prepared and to provide assistance, including through technology transfer, as appropriate, in building their capacities, to receive traditional knowledge and related or complementary information that is returned to them.

8. *Recording, documenting and digitization*[109] *of traditional knowledge – consideration of formats that enable repatriation*

47. While digitization may be useful, a number of issues have been raised under the Convention[110] with regard to the documentation of traditional knowledge, including its potential challenges and opportunities. Taking this into

---

[105] This can be achieved through step one, "Establish a team, inclusive of representatives of the relevant indigenous peoples and local communities".

[106] The traditional knowledge being repatriated may include "related or complementary information".

[107] These may include Parties, other Governments and other entities, including international organizations, museums, herbaria, botanical, and zoological gardens, databases, registers, gene-banks, etc.

[108] Such as secure databases.

[109] Digitization is the process of converting information into digital or electronic format. Please note that documentation and digitization are distinct acts. Documentation is a form of recording, usually writing down of information, whereas digitization is converting the documented information into an electronic format.

[110] See decision VIII/5 B, which recommends that Parties and Governments bear in mind that registers are only one approach to the protection of traditional knowledge, innovations and practices, and as such their establishment should be voluntary, not a

account, institutions and entities considering the digitization of collections, as an aid to repatriation, should do so with the full and effective participation of indigenous peoples and local communities, fully cognizant of both the challenges and benefits of documenting traditional knowledge, including digitization and of making it publicly available.

48. Some institutions working with traditional knowledge and related or complementary information recommend the digitization of collections, in order to facilitate repatriation while also allowing for retention of the information by the repatriating institution, as a back-up for safe keeping.[111] Good practices for repatriation may also include making collections and data freely available online, as well as facilitating access to collections not in digital format. Many entities holding, storing or housing traditional knowledge, such as museums, routinely provide for the free access to publicly available traditional knowledge related to biodiversity.

49. Additionally, the publication of the World Intellectual Property Organization (WIPO), *Documenting Traditional Knowledge – A Toolkit* [112] may also be relevant in this context as it provides essential information, including possible benefits and challenges, for indigenous peoples and local communities to consider when deciding whether or not they wish to pursue documentation of their knowledge.

50. Those making collections and data on traditional knowledge relevant to the conservation and sustainable use of biological diversity freely available online should consider the need to do so with the effective participation of indigenous peoples and local communities, according to prior and informed consent, free, prior and informed consent or approval and involvement, as appropriate, and mutually agreed terms when appropriate, fully cognizant of both the challenges and benefits of making traditional knowledge freely available.

51. Also relevant to the recording, documenting and digitization and repatriation of traditional knowledge and as an action to promote the principles of relationship building and reciprocity, where possible, traditional knowledge and related information obtained from activities/interactions with indigenous peoples and local communities should be shared with them, where possible, in indigenous and local languages and understandable and culturally appropriate formats, with a view to promoting intercultural exchanges, knowledge and technology transfer, synergies and complementarity.[113]

B. Special considerations

1. Publicly available traditional knowledge relevant for the conservation and sustainable use of biological diversity and ongoing use and benefit-sharing

52. Where there is ongoing use of traditional knowledge, the user should consider special measures to address benefit-sharing, when appropriate. These measures may include: (a) compensation or fair and equitable benefit-sharing for ongoing use; (b) encouragement for ongoing users to seek prior and informed consent, free, prior and informed consent or approval and involvement, and enter into mutually agreed terms for the equitable sharing on benefits; (c) the return of rights to the original knowledge holders, where feasible and in accordance with applicable laws; or (d) the development of mechanisms for fair and equitable sharing of benefits from traditional knowledge that was collected and used for a specific or ongoing period. In such instances, benefits should, to the largest extent possible, be appropriate to the cultural and social context and the needs and aspirations of the indigenous peoples and local communities concerned. Fair and equitable benefit-sharing should also be encouraged whenever traditional knowledge has been accessed and is used for either commercial or non-commercial purposes unless waived under mutually agreed terms.[114]

53. Further to the issue of benefit-sharing, the Conference of the Parties, in its decision XIII/18, adopted the Mo'otz Kuxtal Voluntary Guidelines for Traditional Knowledge, which contain advice regarding benefit-sharing that may be applicable also in the context of repatriation and continuing use.

---

prerequisite for protection. Registers should only be established with the prior informed consent of indigenous and local communities.

[111] For example, see: http://aiatsis.gov.au/about-us

[112] Available at: http://www.wipo.int/edocs/pubdocs/en/wipo_pub_1049.pdf.

[113] This principle is also embedded in the principle of Reciprocity in the Tkarihwaié:ri1 Code of Ethical Conduct on Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities Relevant for the Conservation and Sustainable Use of Biological Diversity, adopted in decision X/42 and available at https://www.cbd.int/doc/publications/ethicalconduct-brochure-en.pdf

[114] See UNEP/CBD/WG8J/8/5, para. 72.

54. Further to the issue of access to and the use of publicly available traditional knowledge, the Mo'otz Kuxtal Voluntary Guidelines for Traditional Knowledge contain advice related to the "prior and informed consent", "free, prior and informed consent" or "approval and involvement" relevant for the repatriation of traditional knowledge relevant to the conservation and sustainable use of biological diversity.

55. Recalling that the nature of the Rutzolijirisaxik Voluntary Guidelines is to enhance repatriation of traditional knowledge with the ultimate goal of repatriating and restoring traditional knowledge relevant for conservation and sustainable use to the original knowledge holders, it is important that any discussions concerning fair and equitable benefit-sharing in the context of these guidelines does not detract from the overall benefit of repatriating and restoring knowledge, relevant for the conservation and sustainable use of biological diversity.

2. Secret or sacred or gender specific knowledge

56. Special considerations are needed for secret or sacred or gender specific knowledge by both repatriating institutions and entities and receiving communities, as some secret or sacred knowledge may only be seen or accessed by particular individuals. Therefore, the full and effective participation of indigenous peoples and local communities in the identification of the original holders of this information is important. For instance, some materials in libraries, archives and information services are confidential or sensitive which may require certain restrictions on access for regulatory, commercial, conservation, security or community reasons.[115] Suitable management practices will depend on both the materials and the communities served by the organizations. Gender specific traditional knowledge and related information should be accessed by culturally appropriate persons and advice can be provided about this from the receiving communities.[116]

C. Mechanisms that may aid in the repatriation of traditional knowledge

1. Community-to-community exchanges

57. Commonly, *community-to-community exchanges* allow for communities who have retained their traditional knowledge to share it with other communities who have lost their traditional knowledge, and to do so in culturally appropriate ways.

58. Community-to-community exchanges for knowledge restoration are growing in popularity and success and can cover such issues as fire management, water management, community conservation areas, in situ conservation (for traditional diets, human health and well-being), community resource mapping and monitoring, sustainable biodiversity management systems, including sustainable hunting and gathering systems, cultural heritage activities, monitoring the health of species and habitats, compliance patrols and training and advising land and sea managers on strategies to strengthen the protection and management of protected areas.

59. Through community-to-community exchanges, communities with their traditional knowledge intact are encouraged to share and assist other communities in restoring their traditional knowledge, including in transboundary situations, and to do so in culturally appropriate ways. Supporting community-to-community exchanges and learning to repatriate and restore traditional knowledge should be encouraged.

60. Community-to-community exchanges to repatriate receive and restore traditional knowledge relevant to the conservation and sustainable use of biological diversity, are regarded as a best practice for repatriation and knowledge restoration. Those interested or engaged in repatriation are encouraged take this into consideration and where possible and appropriate, support such community-driven initiatives.

61. Complimentary to community-to-community exchanges, are *traditional use agreements* between communities sharing common resources or ecosystems. Traditional use agreements can assist in ensuring a common understanding of customary laws, including related traditional knowledge, rights and obligations across different groups occupying a common area or ecosystem and/or sharing common natural or biological resources and by doing so assist in restoring traditional knowledge about sustainable use of common natural or biological resources and shared ecosystems. These agreements describe how each group will manage their natural resources, as well as their roles in compliance activities and in the monitoring of environmental conditions. Thus, traditional use agreements can contribute to the repatriation of traditional knowledge by communities themselves, with the goal of restoring knowledge systems across common ecosystems.

---

[115] Secret or sacred or sensitive indigenous peoples' and local communities' information should not be confused with material that may be considered offensive to indigenous peoples and local communities.

[116] For instance, it may be culturally appropriate that women's knowledge is only accessible to women.

2. Knowledge-sharing platforms

62. Parties, institutions and entities interested in repatriating knowledge and indigenous peoples and local communities may wish to consider the establishment of national or local knowledge-sharing platforms at relevant levels and scales, taking into account customary laws, including community-based observation programmes aimed at improving the sustainable management of natural resources. These can assist communities that share ecosystems and natural and biological resources in having a common understanding of the relevant customary laws and traditional knowledge in order to ensure sustainable use.

63. Traditional knowledge along with community observations can inform management actions, such as changes to hunting and fishing seasons for certain species, changes to quotas for taking plants and animals to ensure sustainable use and amendments to local laws and by-laws, such as imposing restrictions on fishing methods and allowable equipment.

64. Similarly international knowledge-sharing platforms can contribute to the sharing of traditional knowledge, innovations, practices and observations, allowing communities that may have lost the relevant knowledge to restore and use it in practical ways, contributing to the effective management and sustainable use of biological resources.

65. Knowledge-sharing platforms at relevant scales developed with the effective participation of indigenous peoples and local communities can assist communities in exchanging knowledge and information aimed at restoring traditional knowledge across shared ecosystems for the conservation and sustainable use of biological resources.

Glossary of relevant key terms and concepts within the context of Article 8(j) and related provisions

---

The following is taken from recommendation 10/2 of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions

---

The Conference of the Parties,

Noting that clarity in the use of terms and concepts within the context of Article 8(j) and related provisions can contribute to a common understanding and assist in their implementation in order to achieve Aichi Biodiversity Target 18 by 2020,

Also noting that a common understanding of key terms and concepts within the context of Article 8(j) and related provisions in meetings held under the Convention may assist the Parties in achieving consensus in future decisions and directions taken under the Convention, including in developing post-2020 arrangements,

Emphasizing that the use of the glossary is without prejudice to the terminology used in the Convention and does not constitute an interpretation of the Convention or the application of its provisions in accordance with the Vienna Convention on the Law of Treaties,[117] and is without prejudice to further discussions on terminology under other international forums,

1. *[Adopts][Takes note* of*]* the voluntary glossary of key terms and concepts within the context of Article 8(j) and related provisions as contained in the annex to the present decision, taking into account that the terms and the concepts are subject to national legislation and the diverse national circumstances of each Party or Government, and that many Parties have specific understandings of terms and concepts that may already apply within their jurisdiction;

2. *Encourages* Parties, other Governments and observers, with the full and effective participation of indigenous peoples and local communities, to disseminate and make use of the glossary to support the implementation of Article 8(j) and related provisions, in accordance with national legislation and circumstances, as appropriate, and to take it into account in future work under the Convention;

[117] United Nations, *Treaty Series*, vol. 1155, No. 18232.

3. *Requests* the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions to keep the glossary in mind in its future work, as a living resource and reference, and to revisit and update the glossary at regular intervals, as may be appropriate as part of the post-2020 arrangement.

Annex

VOLUNTARY GLOSSARY OF KEY TERMS AND CONCEPTS WITHIN THE CONTEXT OF ARTICLE 8(j) AND RELATED PROVISIONS

The present glossary provides descriptions of a number of terms and concepts used in the context of Article 8(j) and related provisions. It is not intended to provide formal definitions, nor is it intended to be exhaustive. The glossary is intended for use on a voluntary basis.

The use of the glossary is without prejudice to the terminology used in the Convention and may not be interpreted as implying for any Party a change in rights or obligations under the Convention.

The glossary is intended to facilitate a common understanding of terms and concepts used in the context of Article 8(j) and related provisions, in meetings held under the Convention.

Concerning national use, terms and concepts are subject to national legislation and the diverse national circumstances of each Party or Government, noting that many Parties have specific understandings of terms and concepts that they may already apply within their jurisdiction.

Terms and concepts described below complement the terms contained in the Convention and the Nagoya Protocol.

Terms and concepts contained in the Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities, endorsed in decision VII/16 F, and the Mo'otzkuxtal Voluntary Guidelines adopted and welcomed in decision XIII/18 are included, as they are directly related to Article 8(j) and related provisions.

The glossary is made available as a resource to be considered and used, as appropriate, in the context of Article 8(j) and related provisions, in meetings held under the Convention.

The glossary is complementary to the Tkarihwaié:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities, adopted in decision X/42.

Section I **Terms and concepts derived from the text of the Convention on Biological Diversity or decisions made under the Convention**	
Term or concept	**Understanding of the term or concept within the context of the Convention**
Traditional knowledge	The knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.[118]
Customary sustainable use	Uses of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.[119]
Indigenous and local communities or Indigenous peoples and local communities[120]	The Convention on Biological Diversity does not define the terms "indigenous and local communities" or "indigenous peoples and local communities." The United Nations Declaration on the Rights of Indigenous Peoples does not adopt a universal definition for "indigenous peoples", and a definition is not recommended.[121,122]

[118] Derived from Article 8(j) and endorsed in paragraph 6(h) of the annex to decision VII/16 F on the Akwe: Kon Guidelines.

[119] Derived from Article 10(c).

[120] In decision XII/12 F, the Conference of the Parties decided to use the term "indigenous peoples and local communities" in future decisions under the Convention, without affecting in any way the legal meaning of Article 8(j) and related provisions of the

Section II **Terms and concepts derived from outputs of the programme of work on Article 8(j) and related provisions and adopted or endorsed by the Conference of the Parties to the Convention on Biological Diversity**	
Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities (Decision VII/16 F, annex)	
Term or concept	**Understanding of the term or concept within the context of the Convention** **Note that the following terms and concepts were endorsed by the Conference of the Parties in decision VII/16 F on the Akwe: Kon Guidelines and should be applied also within the context of Article 14 of the Convention on Impact Assessment and Minimizing Adverse Impacts.*[123]
Cultural impact assessment	Is a process of evaluating the likely impacts of a proposed development on the way of life of a particular group or community of people, with full involvement of this group or community of people and possibly undertaken by this group or community of people: a cultural impact assessment will generally address the impacts, both beneficial and adverse, of a proposed development that may affect, for example, the values, belief systems, customary laws, language(s), customs, economy, relationships with the local environment and particular species, social organization and traditions of the affected community.[124]
Cultural heritage impact assessment	Is a process of evaluating the likely impacts, both beneficial and adverse, of a proposed development on the physical manifestations of a community's cultural heritage including sites, structures, and remains of archaeological, architectural, historical, religious, spiritual, cultural, ecological or aesthetic value or significance.[125]
Customary law	Law consisting of customs that are accepted as legal requirements or obligatory rules of conduct; practices and beliefs that are so vital and intrinsic a part of a social and economic system that they are treated as if they were laws.[126]
Environmental impact assessment	Is a process of evaluating the likely environmental impacts of, and proposing appropriate mitigation measures for, a proposed development, taking into account interrelated socioeconomic, cultural and human health impacts, both beneficial and adverse.[127]

Convention. Similar decisions were subsequently made by the Parties to the Cartagena and Nagoya Protocols, in December 2016, in decisions BS-VIII/19, and NP-2/7, respectively.

[121] Note: The United Nations Declaration on the Rights of Indigenous Peoples does not adopt a universal definition for "indigenous peoples"; therefore, a definition is not recommended. However, the United Nations Permanent Forum on Indigenous Issues, as an expert body, provides advice on the "concept of indigenous peoples" by referring to the report of the Special Rapporteur, Mr. José Martínez Cobo, on the study of the problem of discrimination against indigenous populations (E/CN.4/Sub.2/1982/2/Add.6), available at: http://www.un.org/esa/socdev/unpfii/documents/MCS_v_en.pdf

[122] Advice on local communities is available in decision XI/14, paragraphs 17-21 on local communities, and the report of the Expert Group Meeting of Local Community Representatives within the Context of Article 8(j) and Related Provisions of the Convention on Biological Diversity (UNEP/CBD/WG8J/7/8/Add.1).

[123] Article 14 of the Convention on Biological Diversity ("Impact Assessment and Minimizing Adverse Impacts").

[124] Endorsed in paragraph 6(a) of the annex to decision VII/16 F on the Akwe: Kon Guidelines.

[125] Endorsed in paragraph 6(b) of the annex to decision VII/16 F on the Akwe: Kon Guidelines. The definition of cultural heritage impact assessment and cultural heritage included in section 3 of this glossary should be considered in conjunction.

[126] Endorsed in paragraph 6(c) of the annex to decision VII/16 F on the Akwe: Kon Guidelines.

[127] Endorsed in paragraph 6(d) of the annex to decision VII/16 F on the Akwe: Kon Guidelines.

Sacred site	May refer to a site, object, structure, area or natural feature or area, held by national Governments or indigenous communities to be of particular importance in accordance with the customs of an indigenous or local community because of its religious and/or spiritual significance.[128]
Social impact assessment	Is a process of evaluating the likely impacts, both beneficial and adverse, of a proposed development that may affect the rights, which have an economic, social, cultural, civic and political dimension, as well as the well-being, vitality and viability, of an affected community – that is, the quality of life of a community as measured in terms of various socio-economic indicators, such as income distribution, physical and social integrity and protection of individuals and communities, employment levels and opportunities, health and welfare, education, and availability and standards of housing and accommodation, infrastructure, services.[129]
Strategic environmental assessment	Is a process of evaluating the likely environmental impacts of proposed policies, plans or programmes to ensure that they are fully included and addressed at an early stage of decision-making, together with economic, social and cultural considerations.[130]
B. Mo'otz Kuxtal Voluntary Guidelines (Decision XIII/18, annex)[131]	
Term or concept	**Understanding of the term or concept within the context of Article 8(j) of the Convention** *Note these terms are understood in the context of access to traditional knowledge within the mandate of the Convention on Biological Diversity*

[128] Endorsed in paragraph 6(e) of the annex to decision VII/16 F on the Akwe: Kon Guidelines.

[129] Endorsed in paragraph 6(f) of the annex to decision VII/16 F on the Akwe: Kon Guidelines.

[130] Endorsed in paragraph 6(g) of the annex to decision VII/16 F on the Akwe: Kon Guidelines.

[131] Voluntary guidelines for the development of mechanisms, legislation or other appropriate initiatives to ensure the "prior and informed consent", "free, prior and informed consent" or "approval and involvement", depending on national circumstances, of indigenous peoples and local communities for accessing their knowledge, innovations and practices, for fair and equitable sharing of benefits arising from the use of their knowledge, innovations and practices relevant for the conservation and sustainable use of biological diversity, and for reporting and preventing unlawful appropriation of traditional knowledge.

"Prior and informed consent" or "free, prior and informed consent" or "approval and involvement"	Free implies that indigenous peoples and local communities are not pressured, intimidated, manipulated or unduly influenced and that their consent is given, without coercion; Prior implies seeking consent or approval sufficiently in advance of any authorization to access traditional knowledge respecting the customary decision-making processes in accordance with national legislation and time requirements of indigenous peoples and local communities; Informed implies that information is provided that covers relevant aspects, such as: the intended purpose of the access; its duration and scope; a preliminary assessment of the likely economic, social, cultural and environmental impacts, including potential risks; personnel likely to be involved in the execution of the access; procedures the access may entail and benefit-sharing arrangements; Consent or approval is the agreement of the indigenous peoples and local communities who are holders of traditional knowledge or the competent authorities of those indigenous peoples and local communities, as appropriate, to grant access to their traditional knowledge to a potential user and includes the right not to grant consent or approval; Involvement refers to the full and effective participation of indigenous peoples and local communities, in decision-making processes related to access to their traditional knowledge. Consultation and full and effective participation of indigenous peoples and local communities are crucial components of a consent or approval process.[132]
Community protocols	Covers a broad array of expressions, articulations, rules and practices generated by communities to set out how they expect other stakeholders to engage with them. They may reference customary as well as national or international laws to affirm their rights to be approached according to a certain set of standards. Articulating information, relevant factors, and details of customary laws and traditional authorities helps other stakeholders to better understand the community's values and customary laws. Community protocols provide communities an opportunity to focus on their development aspirations vis-à-vis their rights and to articulate for themselves and for users their understanding of their biocultural heritage and therefore on what basis they will engage with a variety of stakeholders. By considering the interconnections of their land rights, current socioeconomic situation, environmental concerns, customary laws and traditional knowledge, communities are better placed to determine for themselves how to negotiate with a variety of actors.[133]
Section III **Terms and concepts developed by the Working Group**[134]	
Term or concept	**Understanding of the term or concept within the context of the Convention**
Biocultural diversity	*Biocultural diversity* is considered as biological diversity and cultural diversity and the links between them.
Biocultural heritage	*Biocultural heritage* reflects the holistic approach of many indigenous peoples and local communities. This holistic and collective conceptual approach also recognizes knowledge as "heritage", thereby reflecting its custodial and intergenerational character. The cultural landscapes inscribed under the World Heritage Convention are examples of biocultural heritage.

[132] Endorsed in paragraphs 7 and 8 of the annex to decision XIII/18 on the Mo'otz Kuxtal Voluntary Guidelines.

[133] Endorsed in paragraph 19 of the annex to decision XIII/18 on the Mo'otz Kuxtal Voluntary Guidelines.

[134] These terms and concepts are derived from a document on possible elements of *sui generis* systems for the protection of traditional knowledge, innovations and practices of indigenous and local communities issued for the eighth meeting of the Working Group (UNEP/CBD/WG8J/8/6/Add.1, annex, section II).

Cultural heritage	Includes the physical (tangible) and/or non-physical (intangible) manifestation of an indigenous peoples and local communities' cultural heritage, in accordance with the traditional inheritance and transmission. Tangible cultural heritage includes but is not limited to cultural landscapes, sites, structures, and remains of archaeological, architectural, historical, religious, spiritual, cultural, or aesthetic value or significance, human remains. Intangible cultural heritage includes but is not limited to traditional knowledge, including for medicine, traditional food preparation and diets, as well as species and ecosystem management, and traditional cultural expressions' including songs, dances, artistic expressions, stories, beliefs, relationships and associated values and histories. These constitute both in oral and written form their traditional history, cosmology and culture. The concept can also include gender specific heritage values.
Sacred species	A plant or animal that indigenous peoples and local communities deem to be of particular importance in accordance with the traditions and/or customs because of its religious or spiritual significance.
Traditional custodian	The group, clan or community of people, or an individual who is recognized by a group, clan or community of people, in whom the custody or protection of traditional knowledge and the expressions of culture are entrusted in accordance with the customary law and practices of that group, clan or community.
Traditional biological resources	Biological resources as defined by Article 2 of the Convention and used traditionally by indigenous peoples and local communities[, in accordance with national legislation, as appropriate].
Traditional territories	Lands and waters traditionally occupied or used by indigenous peoples and local communities.[135]
Section IV. Other relevant terms and concepts	
Term or concept	**Understanding of the term or concept within the context of the Convention**
Indigenous peoples' and community conserved territories and areas (ICCAs)	Indigenous peoples' and community conserved territories and areas are natural and/or modified ecosystems containing significant biodiversity values, ecological services and cultural values, voluntarily conserved by indigenous peoples and local communities, both sedentary and mobile, through customary laws or other effective means.[136] Areas conserved by indigenous peoples and local communities could potentially be recognized as protected or conserved areas, subject to their "prior informed consent" or "free prior informed consent" or "approval and involvement" or request, according to the national circumstances.

Other matters related to Article 8(j)

The following is taken from recommendations 10/5 and 10/6 of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions

The Conference of the Parties,

Noting that the Ad Hoc Open-ended Inter-sessional Working Group on Article 8(j) and Related Provisions at its tenth meeting conducted an in-depth dialogue on the topic "Contribution of the traditional

[135] This language is commonly used in the Tkarihwaié:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities, which was adopted by the Conference of the Parties to the Convention on Biological Diversity in decision X/42.

[136] As per the ICCA Consortium at https://www.iccaconsortium.org/index.php/discover/

knowledge, innovations and practices of indigenous peoples and local communities to the implementation of the 2030 Agenda for Sustainable Development with particular emphasis on conservation and sustainable use of biodiversity",

Recognizing the important contribution that traditional knowledge, innovations and practices, and the customary use of biodiversity by indigeonous peoples and local communities to the conservation and sustainable use of biodiversity can make to the achievement of most of the Sustainable Development Goals,

1. *Invites* Parties, when implementing the 2030 Agenda for Sustainable Development,[137] to mainstream traditional knowledge, innovations and practices, including those on customary sustainable use of biodiversity, into the implementation of all relevant Sustainable Development Goals with the full and effective participation of indigenous peoples and local communities;

2. *Decides* that the topic for the in-depth dialogue to be held at the eleventh meeting of the Ad Hoc Open-ended Inter-sessional Working Group on Article 8(j) and Related Provisions shall be: "Contribution of the traditional knowledge, innovations and practices of indigenous peoples and local communities, and cultural diversity to the post-2020 global biodiversity framework".

3. *Notes* the recommendations emanating from the fifteenth and sixteenth sessions of the United Nations Permanent Forum on Indigenous Issues, and requests the Secretariat to continue to inform the Permanent Forum on developments of mutual interest.

[137] General Assembly resolution 70/1 of 25 September 2015 entitled "Transforming our world: the 2030 Agenda for Sustainable Development", annex.

Item 20. Sustainable wildlife management

The following is taken from recommendation XXI/2 of the Subsidiary Body on Scientific, Technical and Technological Advice

The Conference of the Parties,

Recalling decision XIII/8,

Recognizing that the sustainable use of biodiversity, including management of wild species, contributes to the achievement of several Aichi Biodiversity Targets and Sustainable Development Goals,

Also recognizing the implications of human population growth and urbanization for biodiversity conservation and land management,

Aware that Parties have identified integrated wildlife management needs in their national biodiversity strategies and action plans and in other national, regional and global strategies and plans, and that a number of sustainable wildlife management[138] activities are under way with support from various Governments and organizations, and *noting* that many wildlife species are still in need of urgent conservation measures, including protection, sustainable utilization and restoration of populations,

Welcoming the progress made by the Collaborative Partnership on Sustainable Wildlife Management,

Recognizing the right to customary use of biological resources, in accordance with the traditional practices, and the importance of full and effective participation of indigenous peoples and local communities in decision-making processes related to sustainable wildlife management in accordance with national legislation,

Also recognizing the significant role that indigenous peoples and local communities play in the sustainable use and management of wild meat,

Building on the Plan of Action on Customary Sustainable Use of Biological Diversity, endorsed by the Conference of the Parties at its twelfth meeting,[139]

Recalling the urgent need to reduce biodiversity loss, including preventing the extinction of threatened species, to improve and sustain their conservation status and to restore and safeguard ecosystems that provide essential functions and services, including services related to water, health, livelihoods and well-being,

Having considered the progress report prepared in line with recommendation XXI/2 on sustainable wildlife management: guidance for a sustainable wild meat sector,

1. [*Welcomes]/[Takes note of]* the voluntary guidance for a sustainable wild meat sector, contained in the annex to the present decision,[140] with the aim of promoting the sustainability of supply at the source, managing the demand along the entire value chain, and creating the enabling conditions for legal, sustainable management of terrestrial wild meat in tropical and subtropical habitats, taking into account the traditional use by indigenous peoples and local communities without adversely affecting their livelihoods;

[138] Sustainable wildlife management (SWM) is "the sound management of wildlife species to sustain their populations and habitat over time, considering the socio-economic needs of human populations". Wildlife, if sustainably managed, can provide both long-term nutrition and sustained income to local communities, therefore contributing considerably to local livelihoods as well as safeguarding human and environmental health (Collaborative Partnership on Sustainable Wildlife Management, 2015).

[139] Decision XII/12 B, annex.

[140] Note: the annex may be revised in the light of the work pursuant to recommendation XXI/2 on sustainable wildlife management: guidance for a sustainable wild meat sector.

2. *Notes* that the voluntary guidance for a sustainable wild meat sector can contribute to improving integrated wildlife management aspects reflected in Sustainable Development Goals 2 and 15,[141] for terrestrial wildlife, with a view to enhancing policy coherence across biodiversity-related conventions[142] and other conservation agreements;

3. *Encourages* Parties, other Governments and relevant organizations, including other biodiversity-related conventions and conservation agreements, where applicable, and in accordance with national circumstances and national legislation, to make use of the voluntary guidance for a sustainable wild meat sector, as well as the Plan of Action on Customary Sustainable Use of Biological Diversity and the Sustainable Development Goals,[139] when developing, revising and implementing governance approaches on wildlife and when developing and updating national development plans and national biodiversity strategies and action plans;

4. *Invites* Parties to provide, on a voluntary basis, best practices from their existing national programmes that promote sustainable wildlife management, while contributing to poverty reduction, food security and employment generation, in line with the Sustainable Development Goals and sustainable use of biological diversity;

5. *Also invites* Parties to provide information on their activities and results arising from the consideration of the voluntary guidance for a sustainable wild meat sector;

6. *Encourages* Parties to undertake cross-sectoral dialogues and joint trainings on sustainable wildlife management, among the forestry, agriculture, veterinary and public health, natural resources, finance, rural development, education, legal and private sectors, as well as indigenous peoples and local communities, and other relevant stakeholders with a view to promoting the application of the voluntary guidance for a sustainable wild meat sector;

7. *Invites* Parties, and *encourages* other Governments and other relevant organizations that are in a position to do so, to support capacity-building initiatives for developing countries, aimed at enhancing the implementation of the voluntary guidance for a sustainable wild meat sector;

8. *Requests* the Executive Secretary to compile the submissions referred to in paragraph 5 above and make them available through the clearing-house mechanism;

9. *Requests* the Executive Secretary, in consultation with interested Parties, other Governments, indigenous peoples and local communities, and other members of the Collaborative Partnership on Sustainable Wildlife Management, subject to the availability of resources:

(a) To identify areas that may require complementary guidance to be developed and to explore ways to apply such guidance to other geographical areas, other species and other uses, in view of the fact that the voluntary guidance for a sustainable wild meat sector is applicable only to some areas of terrestrial tropical and subtropical habitat, biomes and ecosystems;

(b) To promote and facilitate the use of monitoring tools and databases, through an exchange of best practices and lessons learned, among Parties, other Governments and relevant organizations, with a view to improving information on sustainable wildlife use, including wild meat hunting, consumption, trade and sales, and legality issues;

(c) To further test multidisciplinary approaches to combining better knowledge of the use of and trade in wildlife, taking into account the knowledge, innovations and practices of indigenous peoples and local communities and livelihood alternatives for the customary sustainable use of wildlife, possibly including an understanding of the taxonomy and ecology of the species involved, a review and strengthening of legal frameworks, the identification and promotion of best practices for sustainably managing and using wildlife, and an examination of the provisions of food and livelihood alternatives

[141] See General Assembly resolution 70/1 of 25 September 2015 entitled "Transforming our world: the 2030 Agenda for Sustainable Development".

[142] See https://www.cbd.int/brc/

relating to customary sustainable use of wildlife through, among other things, a review of existing activities relating to the Partnership;

(d) To communicate with the Executive Secretary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services with a view to facilitating the wide dissemination of the outcomes of the assessment on sustainable use and conservation of biodiversity in order to help strengthen capacities and tools;

(e) To report on the progress of activities listed in paragraph 9 (a) through (d) above to the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting held prior to the fifteenth meeting of the Conference of the Parties.

Annex

VOLUNTARY GUIDANCE FOR A SUSTAINABLE WILD MEAT SECTOR[143]

CONTEXT: WILD MEAT, FOOD SECURITY, AND LIVELIHOODS

1. Wild animal hunting can be undertaken for subsistence, commercial, and recreational purposes. In subsistence hunting, the benefits obtained from wildlife (particularly food) are directly consumed or used by the hunter and his or her family. Further, the food security and livelihoods of many rural people in the tropics and subtropics depends on the use and trade of wild animals.[144]

2. Wild meat has long served as a source of nutrition for millions of people in many regions of the world, in both developed and developing countries. For example, in some rural communities in tropical developing countries, wild meat has been found to provide almost all of the protein in the diet. In Central Africa, it is estimated that over 4 million tons of wild meat are consumed each year, most of it supplying urban areas.[145]

3. Increased exploitation of the resource has been driven by growing human populations, advances in hunting technologies and the emergence of a booming commercial wild meat trade. Unprecedented extraction rates cause the decline of numerous wildlife populations and endanger foundation species critical to the functioning of ecosystems. Illegal and unregulated harvesting, increased hunting pressure, alongside rising rates of habitat destruction and conversion in tropical forest regions, make it highly likely that wild meat supplies in some tropical and subtropical countries will diminish.

4. The loss of wildlife will impact the availability of animal protein and fat sources for countless numbers of people and also initiate cascading alterations of ecosystems as species that play important ecosystem functions (e.g., seed dispersal, seed predation, control of prey species) are eliminated through overhunting. This loss of ecological interactions creates an internal imbalance of the ecosystem that in turn gravely reduces ecosystem functions and services, including provision of pharmaceutical compounds, biocontrol agents, food resources and disease regulation.[146] Moreover, between 23 and 36 per cent of birds, mammals, and amphibians used for food or medicine are now threatened with extinction.[147]

5. Increasing human population and trade from rural to urban areas, compounded with the lack of any sizeable domestic meat sector which might provide a substitute for wild meat, are the main drivers of unsustainable levels of hunting. Even where provincial town consumers have access to domesticated sources of meat, they are typically imported and/or expensive, and wild meat remains an important part of the diet. In large metropolitan areas located

---

[143] For some Parties, sustainable wild meat practices are not considered a sector of the economy.

[144] The information document on sustainable wildlife management prepared for the twentieth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/20/INF/46) includes an overview of the role of subsistence hunting in human societies, the impacts of subsistence and commercial hunting (including the combined impacts of hunting and land-use change as a result of agricultural and industrial activity), and an analysis based on the theories regarding the management of common pool resources. Additional information relating to national reports of Parties and national biodiversity strategies and action plans and sustainable use of wildlife was also made available in another information document (UNEP/CBD/SBSTTA/20/INF/47).

[145] See UNEP/CBD/SBSTTA/20/11, para. 26

[146] S.S. Myers et al. (2013). *Proceedings of the National Academy of Sciences* 110, 18753-18760.

[147] S.H.M. Butchart et al. (2010). *Science* 328, 1164–1168.

far from sources of wildlife, wild meat is no longer a dietary necessity for families but, in some traditional and cultural contexts, remains an important luxury or an occasional consumed good.

6. Concurrently, habitat for wildlife is declining as lands are converted for agricultural commodities to meet the demands of a growing human population, natural resource extraction (e.g. timber, mining), and expanding human settlements. Land-use conversion can also reduce the size of the customary hunting grounds of indigenous peoples and local communities, exerting greater pressure on remaining wildlife resources within increasingly smaller territories, and often also impacting the legitimacy and effectiveness of customary hunting laws. However, more attention should be given to the positive contributions that relate to livelihood benefits, local economic growth and connections to climate change adaptation, which can provide incentives for the improved management of wildlife resources.

7. Wildlife species are typically undervalued, based on productivity and size, as compared to domesticated animals. However, in some contexts, wildlife may be quite competitive with livestock, particularly once higher value uses, such as eco-tourism, hunting, meat and other benefits produced, are taken into account.

8. Given that unsustainable hunting for wild meat is deemed a major threat to the ecology of tropical and subtropical ecosystems, directly affecting many endangered species, as well as indigenous peoples and local communities' livelihoods, food security and health, there is an urgent need to strengthen public policy responses within a more integrated socioeconomic, cultural, ecological and public health framework.

9. Mitigating the effects of overhunting is a complex issue. The reasons for wild meat overexploitation are manifold and these can vary considerably between regions. Often, a complex web of factors exists, contributing to increased wild meat demand and consequent resource overexploitation. These factors may include employment availability, property rights issues, the role of institutions, lack of incentives for managing the resource sustainably, migration, failures of crop harvests and availability of food from livestock, weather patterns and climate change, logging and resource extraction, overgrazing, urban sprawl, natural disasters, displacement, poaching, illegal trade war and strife. Land-use change for agricultural and industrial needs also has a major impact on wildlife habitat and wildlife behaviour. Moreover, though relatively little is known about host ecology, dynamics and the disease risk to people in contact with hunted wildlife, there is enough evidence to suggest that wildlife is an important reservoir of zoonotic pathogens that can present a clear public health risk of epidemics.[148] Certain wild meat species are likely to provoke pathogen spillover to humans, and this risk could increase through the unregulated and uncontrolled butchering and skinning of wild animals used for meat. Multisectoral approaches combining appropriate policy mechanisms from the agricultural, biodiversity, food security, health, infrastructure, mining and logging sectors, are therefore required for successful sustainable wildlife management.

10. Approaches for sustainable wildlife management should include: (a) analysis of national policies, (b) improving knowledge of the use and trade of wild meat species, and understanding of the ecology of species involved; (c) review and strengthening of legal frameworks, to design policy and management frameworks that incentivize and enable sustainable management; (d) the identification of opportunities and barriers for providing sustainably produced food and livelihood alternatives; (e) taking into account the use and traditions of indigenous peoples and local communities, and (f) appropriate enforcement capacity. With these combined and incorporated into solid national and regional wild meat strategies, there is a potential to achieve more sustainable use of wildlife for food.

II. SCOPE AND PURPOSE

A. Scope

11. Sustainable wildlife management refers to the sound management of wildlife species to sustain their populations and habitat over time, considering the socioeconomic needs of human populations. Wildlife, if sustainably managed, can provide both long-term nutrition and sustained income to indigenous peoples and local communities, therefore contributing considerably to local livelihoods as well as safeguarding human and environmental health.

12. The present guidance focuses on wild meat – defined for the purposes of this present guidance as the meat of terrestrial vertebrates in tropical and subtropical habitat, biomes and ecosystems which is used for food.[149] This may

[148] Zoonotic pathogens such as the Ebola, Marburg virus, and monkey pox.

[149] Based on the scope of work on wild meat (or "wild meat") carried out in accordance with past decisions regarding the Convention's programme of work on forest biodiversity, the focus of this report is on wild animals in tropical and subtropical forests used for food. This present guidance excludes a focus on non-food purposes, including medicinal uses. Information

be considered synonymous with the term "bushmeat". Freshwater and marine fish, and in some situations invertebrates, are also important nutritional resources, but are not covered by the present guidance.

B. Goal and objective

13. The present guidance provides a technical guide aimed at enhancing governance for a sustainable, participatory and inclusive wild meat sector in the tropics and subtropics. Interventions specific to rural, urban and international contexts are presented to help reduce the loss of biodiversity, particularly that of wild species used for food, as well as to improve the sustainable use of wild meat for human well-being.

14. The overall objective of the present guidance is to facilitate the development of integrated policy measures, to prioritize and incorporate actions to improve the sustainability of wild meat use and further implement the Strategic Plan for Biodiversity 2011-2020, in particular Aichi Biodiversity Targets 4, 7, 12 and 18.[150]

15. The information contained in the present guidance thus contributes to the achievement of objectives and commitments under the Convention on Biological Diversity[151] and other conventions, including the Convention on the Conservation of Migratory Species of Wild Animals (CMS), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), as well as the 2030 Agenda for Sustainable Development.[152]

16. While many of the types of actions suggested in the present guidance can be undertaken in the short term, sustainable wildlife management involves sustained activities over the medium and long term. Therefore, the actions identified in the present note should be undertaken in the context of the 2050 Vision of the Strategic Plan for Biodiversity and the 2030 Agenda for Sustainable Development.

17. More specifically the guidance aims to support the work of Parties as well as relevant organizations and initiatives to promote, implement and accelerate integrated action to:

(a) Ensure that the supply of wild meat is sustainably and legally managed at the source;

(b) Reduce demand for unsustainably managed and/or illegal wild meat in towns and cities;

(c) Create an enabling environment for the sustainable management of wild meat.

18. The technical guidance within the present note can be used by various ministries, decision makers, as well as planning and implementing agencies at the national level. Due to the complexity of the issue and its many cross-sectoral dimensions, the present guidance proposes joint approaches that can be applied to achieve sustainable use of wild meat species. The information therein supports continued dialogue, learning and methodological exchanges on sustainable wildlife management among forest, agriculture, natural resources, veterinary and public health, finance, rural development and legal sectors.

III. TECHNICAL GUIDANCE FOR ACHIEVING A SUSTAINABLE WILD MEAT SECTOR

19. The guidance comprises a comprehensive set of recommendations to achieve a sustainable wild meat sector with a focus on how to work with actors to improve the sustainability of the supply (subsection A); how to reduce the demand for unsustainably managed wild meat along the whole value chain (subsection B); and how to create the enabling conditions for legal and regulated, sustainable management of wild meat (subsection C). The guidance also

---

document UNEP/CBD/SBSTTA/20/INF/46 provides a broader analysis on non-domesticated terrestrial mammals, birds, reptiles and amphibians harvested for food or other purposes.

[150] Aichi Biodiversity Target 4 aims to achieve or have implemented plans for sustainable production and consumption and keep the impacts of use of natural resources well within safe ecological limits by 2020. Target 7 calls for the sustainable management of areas under agriculture, aquaculture and forestry, ensuring conservation of biodiversity by 2020. Target 12 ultimately aims to prevent the extinction of known threatened species and to improve and sustain their conservation status, particularly for those most in decline, by 2020. Target 18 to promote traditional knowledge and the full participation of indigenous peoples and local communities.

[151] In particular, Article 10 (Sustainable Use of Components of Biological Diversity), which requires Parties, as far as possible and as appropriate, to: (a) integrate consideration of the conservation and sustainable use of biological resources into national decision-making; (b) adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity; (c) protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements; (d) support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced; and (e) encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources.

[152] See General Assembly resolution 70/1 of 25 September 2015 entitled "Transforming our world: the 2030 Agenda for Sustainable Development".

suggests steps and approaches that can be applied, by Parties and other Governments, in collaboration with relevant organizations, building on decision XI/25, and in accordance with national legislation, circumstances and priorities.

A. Managing and improving the sustainability of wild meat supply at the source

20. In commonly used lands, hunting is often governed by local and often informal rules establishing who can hunt and where hunting can take place. Challenges arise in the enforcement of such rules where local leaders are not empowered to control access to their land by external hunters or where hunters have lost their rights to legally hunt or participate in wildlife management, or else where the social structure of local communities has been eroded by several external historical factors (such as colonialism, in-migration). In these contexts, individual hunters (both within and external to local communities) tend to compete with other hunters for this finite resource. This competition can prompt the harvesting of a wild species as quickly as possible, driving the species to local extinction. Therefore, the rules governing wildlife use for food needs to recognize rights for subsistence hunting, provide for the management of wildlife and determine which activities are considered legal or illegal. Responsive enforcement is an integral component of such rules. Procedurally, a participatory process with two way consultations involving indigenous peoples and local communities is required.

21. Several models for management of wildlife resources at the community level have been suggested and tested. These models are meant as examples as possible approaches, but may not be applicable in all countries or settings. Generally, these represent forms of co-management between communities and the state and/or private sector entities involved, such as those in infrastructure and extractive industries such as road construction, logging and mining. Forms of co-management between communities and the State and/or private companies, according to national legislation, inter alia, may include:

(a) Community hunting zones, which can be used to regulate hunting in settlements bordering protected areas or industrial concessions. Hunting by community members is allowed within delimited hunting zones, often using quota systems and rotation of zones and protected areas to allow repopulation of wildlife. Extractive concession owners and infrastructure developers may also provide workers with alternative animal protein sources, such as sustainably sourced and/or produced chicken or fish, in lieu of the use of wild meat where current or projected levels of demand exceed wild meat species' capacity to recover;

(b) Community conservancies. Hunting quotas are set by the state, based on annual game counts. The conservancies are managed by communities, who have rights to establish tourism enterprises and auction big game licenses according to national legislation. Conservancies are supported by law enforcement agencies which respond to conservancy information to apprehend and arrest poachers;

(c) Wildlife (or game) ranching comprises the maintenance of wild animals in defined areas delineated by fences. It is a form of husbandry similar to cattle ranching, the animals are managed on natural vegetation although the habitat may be manipulated to improve production efficiency in the framework of national legislation;

(d) Payment for Ecosystem Services schemes. Communities are paid on delivery of an ecosystem services. In this case, in accordance with national policies, they may be paid to maintain "food stocks" at sustainable levels or even to maintain "carbon stocks" through sustainable hunting or strict conservation of key tree seed dispersers, respecting the cultural relation of indigenous peoples and local communities with wildlife. Population monitoring of the target species are conducted to measure the delivery of the service;

(e) Certification schemes. Certification has the potential to contribute to the conservation and sustainable use of wild species by influencing consumer choices for sustainably-sourced products. While most certification schemes certify products that are cultivated, harvested or produced without harming wildlife habitats or wildlife populations (such as wildlife-friendly wood; wildlife-friendly cocoa), there are also a few examples of certification schemes that certify "wildlife-based" products for being sustainably harvested (for example, peccary pelts, certified meat). Such certification schemes may also incorporate safeguards that would assure consumers that wild meat meets good sanitary standards. Certification schemes work well in societies that are ready to pay a premium price for products that respond to their ethics as consumers. The premium price received by the producer (a hunter, or a community) must cover the costs of certification, which are often high.

22. Elements for successful, sustainable community-based (or regional cooperative) wildlife management, to create the enabling conditions for local community management, may include, in accordance with national legislation:

(a) Communities have the social cohesion (i.e., they trust one another and feel kinship with their community neighbours) sufficient to take collective actions to address shared problems;

(b) Communities develop, or receive support to develop, benefit-sharing mechanisms for the sustainable use of wildlife over which they have traditional and legitimate claims. The right to benefit is devolved to the lowest community level, with support from the State to ensure that communities gain a just share of benefits from wildlife use;

(c) Rights over land and rights to manage and benefit from wildlife are clearly defined and recognized and defended by the State. The corresponding rights holders are identified and formally recognized to prevent non-rights holders (illegitimate users) from abusing the use of wildlife resources;

(d) Definition on geographical limits of those areas where community-rights-holders are able to collect wild meat is determined by national legislation taking into consideration their customary law;

(e) Local communities and hunters are explicitly interested in benefiting from their rights to use wildlife, including customary rights, but also take the responsibility to be accountable for its sustainability and habitat conservation. Communities have clear, acknowledged procedures for resolving policy and practice differences within the community or group;

(f) Clear regulatory frameworks exist or are created to allow for the sustainable use of wildlife by local community members, or groups of members, including procedures for determining and enforcing penalties on group members or whole communities if necessary;

(g) The structure, capacities and budgets of governmental institutions in charge of wildlife are adapted to play a key role in framing and facilitating sustainable use activities;

(h) There is clear national hunting legislation, and the effective enforcement of that legislation, which prevents actors from outside a community from undermining the legitimate authority and effectiveness of each governance authority;

(i) Administrative procedures are simplified, available in local languages, traceability systems strengthened and local leadership capacities developed;

(j) Community hunting zones, within and around protected areas, are clearly defined,[153] comply with a specific land use, and respect the management plans and conservation parameters of protected areas;

(k) A local governance authority is made responsible for each land-use zone. If the State is not devolving full control to the local authority (i.e. when the State retains responsibility for protected areas, species or local food security), then there should be clearly laid out criteria for assessment of good local governance and the consequences of poor governance. In cases where taxation or other forms of revenue stem from the land-use zone, then clear frameworks for financial management should also be set out, including penalties for misconduct;

(l) Government officials and local authorities have the skills and knowledge to develop sustainable wildlife management plans. Such knowledge should include traditional and customary sustainable use;

(m) Species that can or cannot tolerate harvesting are identified. Among those that can be harvested sustainably, species needing maximum harvesting quotas (and those such as pests needing minimum harvesting quotas) should be distinguished from species for which no quota is necessary. For species requiring maximum harvesting quotas, sustainable offtake rates should be calculated and adjusted on a regular basis;

(n) Systems to establish sustainable quotas, and monitor (by and with the communities) trends in target wildlife species, are established and rules for adaptation of offtakes are clearly set out, together with responsibility for enforcement and penalties for misconduct;

(o) Procedural rights of indigenous peoples and local communities, such as access to information, participation in decision-making and access to justice, should be guaranteed.

23. Legalization and taxation of the sales of some wildlife species can help enable communities to benefit from wildlife. This may not be feasible for countries that lack the required infrastructure and capacity, and an effective justice system that adheres to the principal of equal rights under the law and equal application of the law. In this regard, relevant organizations of the International Consortium on Combating Wildlife Crimes (ICCWC) could also provide further support to national capacity-building of law enforcement, judiciary, prosecution and legislation to prevent illegal hunting.

[153] Land-use zones should delineate: (a) areas where hunting is strictly prohibited to allow for population recovery and protect undisturbed habitats for species very sensitive to human perturbation; (b) areas where some hunting is allowed through permits, licenses, etc.; (c) areas where hunting is less restricted, except for protected species.

24. In many countries, hunting regulatory frameworks need to be updated in order to adjust to their current situation and national realities. Otherwise, wildlife laws are difficult to apply and enforce, and are unlikely to be successful in reducing hunting pressure on key species and ecosystems. Moreover, compliance with outdated regulations implies high costs, which indigenous peoples and local communities cannot afford in the absence of compensatory measures.

25. There is a need to strengthen many countries' staff capacities and capabilities to effectively and fairly enforce wildlife laws. A lack of enforcement of national laws results in the illegitimate appropriation of indigenous peoples and local communities' traditional rights over wildlife by external hunters who lack legitimate rights to hunt on traditional lands. When indigenous peoples and local communities benefit from hunting, consuming and trading wildlife from their lands, they see poaching as stealing from them and are highly motivated to halt the illegal or illegitimate use of their wildlife.

26. There is ample evidence that hunting regulation, law enforcement and crime prevention are more effective when communities and authorities work together over the long term. Tried and proven, effective strategies are those that require long-term engagement on both sides, regulating hunting while also respecting and protecting the legitimate traditional rights of indigenous peoples and rural communities living with wildlife, defending community assets, and enabling local communities to sustainably manage and benefit from wildlife use and conservation. Communities can be the "eyes and ears" of law enforcement by providing information to an arresting authority, such as the police and the national park service, which ensures the anonymity of informants, reducing the risk of retribution. Further action could also be taken to train indigenous peoples and local communities to perform roles of security enforcement and national park officers.

27. Suggested steps for managing and improving the sustainability of wild meat supply at the source:

(a) Review existing policies and legal frameworks:[154] States where wild meat use is common are strongly encouraged to review existing policies and legal frameworks related to the conservation and sustainable use of wildlife, including wild meat species management, in accordance with national circumstances and applicable national legislation, to include:

(i) A rationalization of wildlife laws to focus on sustainability, ensure that they are fit-for purpose and can be properly applied and enforced, and with due consideration to both food security and conservation concerns;

(ii) Devolution of wildlife rights to local populations, where appropriate, and in line with the Plan of Action on Customary Sustainable Use under the Convention, enhancing appropriate forms of land tenure, including ownership to increase their incentive to sustainably manage the resource and exert enforcement against external actors. In this, communities should be supported by a competent and trusted national agency with the authority to arrest and prosecute law breakers in a timely manner;[155]

(iii) Development of guidelines distinguishing species that are resilient to hunting and those that are not, in order to inform the use and trade of species that can be hunted sustainably. Laws regulating hunting and trade should distinguish those wildlife species that reproduce rapidly (e.g., rodents and pigs) from those that do not (e.g., primates and most large bodied mammals). Legislation should be responsive enough to allow adaptive management, with quotas or other regulatory mechanisms recognizing a species' resilience to harvest;

(iv) Where a system of taxation is being considered a full investigation of the current and required capacities, and the sustainability of the taxation system (i.e. that the revenues will cover the costs) is conducted;

(b) Strengthen law enforcement capacity:

[154] The IUCN Best Practice Guidelines No. 20 may be useful in this respect. Available at https://www.iccaconsortium.org/index.php/2015/08/08/governance-for-the-conservation-of-nature/

[155] There are CBD decisions on "indigenous and community conserved territories and areas" (also known as territories and areas conserved by indigenous peoples and local communities). See https://www.iccaconsortium.org/index.php/international-en/conservation-en/

(i) Enforcement of national wildlife laws in partnership between the State and local communities, incentivizing biodiversity benefits for communities to cooperate and support conservation and sustainable use objectives;

(ii) Strengthen investigative capacity, enhancing control, inspection and arresting procedures and methods, together with training and employment of indigenous peoples and local communities, including domestically and at border-crossing points;[156]

(iii) Enhance measures to protect the rights of indigenous peoples and local communities in enforcement activities, and to deter poaching;

(iv) Enhance cooperation and coordination among wildlife trade enforcement officers and officials, prosecutors and judges and other relevant personnel in the implementation of the respective law, and enable prosecutors and judges to prosecute and sentence on cases of illegal wild meat harvest and trade;

(v) Strengthen the capacity of fiscal, legal and judicial personnel on environmental laws and policies to increase their awareness, and effectiveness to address, crimes against wildlife;

(vi) Promote awareness-raising campaigns for citizens, including indigenous peoples and local communities on national and local legislation and regulations;

(c) Develop and strengthen participatory processes in formulating and implementing the sustainable management and harvesting of wildlife, including wild meat species, with the participation of indigenous peoples and local communities, non-governmental organizations, the private sector and other relevant stakeholders:

(i) Where appropriate, communities should be involved in the sustainable management of local wildlife resources. This can be achieved by recognizing and supporting territories and areas conserved by indigenous peoples and local communities (ICCAs), and by using a range of governance models, including community hunting zones, community conservancies, payment for ecosystem services and certification schemes, as well as biodiversity-friendly management models;

(ii) Wildlife management, including wild meat species management, should be an essential part of the management or business plans for extractive industries (oil, gas, minerals, timber, etc.) operating in tropical and sub-tropical ecosystems. In relevant circumstances, contracts between government and infrastructure and extractive industry companies should provide food alternatives to wild meat for staff working in such concessions where demand exceeds or is projected to exceed the sustainable yield;

(iii) Existing biodiversity safeguards and standards within extractive industry guidelines and policies should be identified, expanded where needed, applied and monitored. Fines and compensation measures should be applied in cases where companies default on such safeguards and standards;

(iv) Sustainable wild meat management considerations could be further integrated into forest certification schemes[157] and criteria and indicator processes for sustainable forest management to mitigate the impacts of human activities on wildlife by including provisions for alternative, sustainable food sources and livelihoods, where needed, and for capacity-building and management systems that support legal and sustainable hunting, and effectively regulating the hunting of protected species.

(d) Substitution and other mitigative measures:

The development of culturally acceptable and economically feasible alternative food and income sources is essential where wildlife alone cannot be sustainably used to support current or future livelihood needs. Alternative food and income sources, however, need to take into account local realities, cultures and preferences and should be developed

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

[157] Such as the Programme for the Endorsement of Forest Certification Schemes (PEFC) and the Forest Stewardship Council (FSC).

and implemented with indigenous peoples and local communities or support community-based income projects. Mitigative measures (farming, ranching, captive breeding, etc.) may play a role in conserving wildlife resources.

B. Reducing demand for unsustainably managed and/or illegal wild meat in cities and towns

28. The global demand for animal protein is increasing due to a rapidly growing human population, urbanization, and increasingly successful global efforts to alleviate poverty. This is driving a dramatic increase in the demand for wildlife (both terrestrial and aquatic), and this demand is foreseen to accelerate over the coming decades. Demand for wild meat, as for other consumer goods, is influenced by price, consumer wealth, culture, the availability of substitutes and non-price factors, such as consumer preference, and who pays for the good.

29. At most income levels, when the price of wild meat increases relative to substitutes, consumers tend to reduce their wild meat consumption. However, where consumption of wild meat confers prestige on the consumer, wealthy households may be motivated to consume more as the price increases. There is limited information on how much the price of wild meat needs to rise, and the price of available substitutes needs to fall, before demand for wild meat will significantly decrease. This information is crucial when designing demand-reduction strategies for unsustainably managed wild meat species.

30. The price[158] of wild meat can be increased by increasing enforcement of wildlife laws, or by taxing wildlife sales and consumption. However, as mentioned above, this might not work so well where wild meat is consumed for reasons of prestige. Increasing prices can increase demand in certain luxury markets where the high price point and the social status it confers are a driver for consumption, and may also result in illegal meat being laundered into legal markets.

31. To ensure that wildlife populations are conserved while ensuring that consumers have continued access to sources of food, in many cases, substitutes for wild meat will need to be developed and produced in sufficient quantities. Livestock meat and fish can serve as substitutes for wild meat. However, in those cases where wild meat is an important part of the diet of rural communities, and can be regulated to ensure its sustainability, it may, in fact, be a better alternative than livestock production with its concomitant impacts on land-use change. In addition, assessments must be conducted to ensure that any increases on livestock and fishery production does not have adverse impacts on biodiversity and the environment, and is conducted sustainably.

32. The relative success of sustainable management of wild meat, as compared to substitutes will be dependent on the context, as will the choice among substitutes. In Central Africa, backyard poultry production may provide a suitable substitute, whereas in South America, where freshwater fish is an important component of the diet, sustainable fish production may be more suitable. The situation is different in savannah or grassland ecosystems (such as eastern and southern Africa), where wildlife and domesticated livestock have shared the same pastures for thousands of years.

33. Previous attempts to produce food and income substitutes for wild meat have generally been as part of small-scale “alternative livelihood” projects for rural communities. However, these projects have not provided substitutes at a scale needed to meet the growing demand, particularly in urban areas. Identification of the factors influencing the success or failure of such projects would allow the potential of alternative livelihood projects to be properly assessed, and the development of best-practice guidelines.[159]

34. Behavioural change interventions aim to influence the consumer choices and decisions in order to elicit a swifter response to the availability of meat substitutes. In the longer term, interventions might aim to reduce overall meat consumption in favour of plant-based alternatives. Media campaigns, often disseminated as radio plays or tele-novellas, attempt to reach large audiences from villages to cities, provide consumers with information designed to encourage them to shift their meat consumption to alternatives, and promote certified wild meat products where relevant. Where young urbanites are already switching their preferences from wild meat, media campaigns can help to catalyse this change.

35. Rapidly growing provincial towns or remote urban settlements created by extractive industries (logging, mining, oil) are a critical entry point for managing the wild meat trade. Many residents still eat wild meat regularly due to the proximity to this resource and the highly limited availability of other animal source proteins, but are not fully reliant on it for their livelihoods. For rural villages with legitimate claims to manage and benefit from the sustainable use of wildlife within their traditional territories, a key solution to current open-access hunting is to assist

[158] This may be the actual price or the shadow price (i.e. the estimated price of a good or service for which no market price exists).

[159] This would require substantial improvements in project monitoring and reporting. The development and application of suitable monitoring and evaluation frameworks should be a requisite for donor or government funding of projects.

rights holders to secure the authority and attain the capacity to control and manage the level of hunting on their lands, as discussed in subsection A. Natural resource extraction activities may be accompanied by an influx of workers that could potentially increase hunting pressure or alter the food supply in the region: companies should ensure a reliable protein source and set and enforce regulations for sustainable wild meat hunting and/or consumption by employees.

36. With rapidly increasing human populations and urbanization, large urban centres represent a significant and growing proportion of the overall consumption of wild meat in some countries. Increasing the availability of cheaper, sustainable substitutes through local production and importation is both possible and a priority. This should be combined, however, with a proper enforcement of wildlife use at wholesale, retailer and consumer levels.

37. Suggested steps for reducing demand for unsustainably managed and/or illegal wild meat in cities and towns:

(a) When necessary, develop demand-reduction strategies for unsustainably managed wildlife, focusing on towns and cities, using a cross-sectoral approach, in accordance with national circumstances and applicable national legislation:

(i) Demand for wild meat is not an isolated environmental issue, and hence demand-reduction strategies should be developed cross-sectorally, with the involvement of government ministries responsible for health, food, agriculture, business, development, economy, finance, infrastructure, and education, as well as those responsible for the environment, and relevant experts in the fields of consumer behaviour change, including social marketing and behavioural economics, and in conjunction with the private sector and experts in fields that go beyond conservation;

(ii) The development of effective demand reduction strategies must also include the active involvement of the relevant experts in the related fields of consumer behaviour change, including social marketing and behavioural economics;

(iii) Demand-reduction strategies should focus principally on consumers in provincial towns and metropolitan cities, where a reduction in wild meat consumption can be achieved without impacting livelihoods or land rights. For provincial towns, close to sources of wildlife, a mix of formalization of short value chains based on the hunting of resilient species should be combined with strict enforcement especially for protected/vulnerable species, and the development of locally produced substitutes. For metropolitan cities, far from sources of wildlife, consumption is a consumer choice issue that may be best resolved through targeted social marketing to encourage behavioural change;

(iv) Demand-reduction strategies should be informed by research focused on the identification of environmental, economic and cultural drivers, attitudes and motivations that influence consumption of wild meat, in order to develop strategies that also address these important drivers;

(b) Increase the availability of sustainably produced and sustainably-harvested substitutes, as appropriate:

(i) An enabling environment should be developed and incentives provided to encourage the development of self-sufficient private enterprise and private-public partnerships to supply substitutes, such as sustainably produced / sustainably-harvested chicken, fish and other domestic livestock, in urban settlements which are sufficiently large (and have a large enough customer base). Assessments must be conducted to ensure that any increase of livestock and fishery production does not have adverse impacts on biodiversity and the environment, and that the production is sustainable;

(ii) Extractive and infrastructure industries that house their employees in close proximity to sources of wildlife should be required to ensure that their employees comply with applicable regulation concerning hunting of wild meat species and, where appropriate, have access to affordable and sustainably produced / sustainably-harvested sources of protein from livestock or sustainable system crops, sustainably and preferably domestically produced;

(c) Decrease the availability and demand for unsustainably produced wild meat:

(i) Targeted media campaigning (based on an understanding of the drivers of consumption and relevant substitutes), including the use of social media, in urban towns and cities should be used to inform citizens on issues pertaining to wild meat consumption, including wildlife conservation, human health issues, conservation impact, wildlife laws and available sustainably produced/ sustainably-harvested substitutes, with the aim of changing consumer behaviour. Campaigns should be designed based on a clear understanding of the consumers, drivers, and substitutes in the areas to be targeted;

(ii) Wildlife laws governing the trade and sales of wild meat (which are relevant, understandable, and enforceable) should be developed and applied in provincial towns, cities and villages, to encourage legal, sustainable and traceable trade, and provide a disincentive to illegal traders and increase urban wild meat prices. Prior assessments should be conducted in order to determine if increasing prices will increase demand in certain luxury markets and/or lead to increased illegal trade;

(d) Promote responsible consumption of certified sustainably-sourced wild meat, since certification has the potential to contribute to the conservation and sustainable use of wild species by influencing consumer choices for sustainably-sourced products. Certification schemes could be developed to certify wild meat products as sustainably harvested, as well as meeting good sanitary standards. Such certified products can highlight benefits such as sustainability, local community livelihoods, conservation impact and health.

C. Creating the enabling conditions for a legal, regulated and sustainable wild meat sector

38. At the international level, wild meat issues are considered via two main types of institutions: international conventions and platforms (CBD, CITES, CMS, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)) and other relevant organizations that help to support or implement the decisions of the conventions (CPW, Interpol, UNODC, ICCWC, TRAFFIC, UNCTAD, FAO, IUCN, UNDP) and regional cooperation or economic integration bodies (EU, AU, CEEAC) and other related multilateral institutions (EC, COMIFAC, among others).

39. Among wildlife issues, the question of the illegal wildlife trade is of prominent concern and, too often, sustainable wildlife management and wild meat issues are overlooked or are treated as a by-product of the work on the illegal wildlife trade. Some conventions[160] explicitly consider and act upon the unsustainable use of wild meat by trying to produce a more favourable environment for the conservation and sustainable use of wildlife.

40. Management of the wild meat sector must move beyond ad hoc disconnected palliative measures intended to mitigate the effects of wildlife hunting (e.g. hunting bans, captive breeding of wild species, and small-scale alternative protein or livelihood options). A holistic approach along the wild meat value chains, focused on conserving and sustainably using the resource at the source (rural areas) and reducing the demand in urban centres, should be developed.

41. This will require a conducive and comprehensive enabling environment (particularly regarding national policy and legal frameworks concerning wildlife hunting, and wild meat trade and sales), which is currently absent in most developing countries. Creating such an enabling environment becomes the necessary condition to achieve or progress towards a more controlled, more sustainable wild meat sector. A coherent and focused governance framework is required at both the international and national levels in support of interventions targeting better management of the resource and/or a significant reduction of the demand.

42. The complexity of such a framework may require the development of a Theory of Change that can be used to think through and plan actions and interventions which address a specific societal or biodiversity problem. A Theory of Change maps out the logical steps that are needed for an intervention to lead to a desired outcome and ultimately to broader societal and conservation impacts.

43. Much of the current wild meat trade is not legal, and this can hinder policy processes and prevent a sound assessment of management requirements. There is an urgent need to include the wild meat sector formally within systematic national wealth accounting systems and GDP estimates.

44. Suggested steps for creating the enabling conditions for a legal, regulated and sustainable wild meat sector:

(a) Increase international collaboration:

[160] For example, CBD, CITES, CMS.

(i) Further enhance collaboration among the relevant conventions, platforms, and organizations (in particular: the Convention on Biological Diversity, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on Migratory Species (CMS), IPBES, the World Health Organization (WHO), the World Organization for Animal Health (OIE), and the Food and Agriculture Organization of the United Nations (FAO), the International Consortium on Combating Wildlife Crime (ICCWC)), promoting the recommendations of the Bushmeat Liaison Group under the Convention on Biological Diversity;[161]

(ii) An integrated approach is needed that addresses poaching and illegal wildlife trade hand-in-hand with the equally important issues of food security, livelihoods and the sustainable use of wildlife. Efforts aimed at tackling poaching and illegal wildlife trade to be effective and sustainable in the long term, need to be complemented by efforts to ensure that the conservation and sound management of wildlife species takes into account the socio-economic needs of local communities, including the sustainable use of wild meat;

(iii) Support integrated local, national, and transboundary action to build partnerships among relevant organizations, institutions and other relevant stakeholders to: build enforcement and monitoring capacities; develop and implement alternatives for nutrition and livelihoods; and increase awareness, research exchanges and education regarding hunting of and trade in wild meat. In addition, there should be targeted action to advance the Action Plan on Customary Sustainable Use, as well as to support national processes to revise policy and legal frameworks to support and enable conservation and sustainable use of wildlife species;

(b) Acknowledge the role of wild meat, where legitimate, and adapt national policy and legal frameworks accordingly:

(i) Recognize the reality of the existing wild meat trade, as a necessary precursor to getting wildlife management onto a sounder footing;

(ii) Record levels of existing wild meat consumption into national statistics, as a means of valuing the resource and recognizing the benefits of its legal and sustainable use, and giving it appropriate weight in public policy and planning;

(iii) Assess the role of wildlife consumption in livelihoods and consider it in national resource assessments and major policy planning documents, such as national development and poverty reduction strategies;

(iv) Include wild meat/wildlife issues in relevant educational curricula (e.g. tertiary education, government training);

(v) Recognize the important role of women in the processing and sale of wild meat, while taking into account the needs, priorities and capacities of women and men;

(c) Create regional and national monitoring frameworks for wild meat to inform policy and legal interventions, including:

(i) To undertake an evaluation of wild meat consumers, the drivers of consumption and, where demand exceeds the sustainable yield potential substitutes, and the calculation of elasticities of demand. This knowledge is required for the design and targeting of demand-reduction strategies, including the development of behavioural change strategies to address sustainable wild meat consumption practices, including consumption of sustainable substitutes;

(ii) To carry out an evaluation of wild meat suppliers, including the use of wild meat for protein and income, the characteristics of hunters and hunting households, the use of alternative sources of protein and income, and the impacts of hunting on local livelihoods;

(iii) To generate a description of the wild meat commodity chain, to identify key actors and places along the commodity chain to target interventions;

[161] CITES COP 17 (Conf. 13.11), and CBD Conference of the Parties decision XI/25.

(iv) To design an ecological monitoring platform at key sites nationally to determine and track the impacts of wild meat hunting and the impacts of policy implementation;

(v) To assess relative health benefits and risks from wild meat and alternatives in development planning (e.g., extractive industry operations), including both nutritional content and infectious disease risks, to inform supply options;

(vi) To collate past and current interventions aimed at increasing the sustainability of wild meat use, and any evidence of their impact, to build an evidence-base of success and failures with which to better design future interventions;

(vii) To make use of relevant, existing data platforms to develop a deeper understanding of the type of interventions needed, including their potential design, and opportunities for different stakeholders to contribute to data collection effort

Item 21. Biodiversity and climate change

The following is taken from recommendation 22/7 of the Subsidiary Body on Scientific, Technical and Technological Advice

The Conference of the Parties,

Recognizing the critical role of biodiversity and ecosystem functions and services for human well-being,

Deeply concerned that failing to hold the increase in the global average temperature to well below 2°C above pre-industrial levels would place many species and ecosystems, with limited adaptive capacity, under very high risk,

Recognizing that, limiting the global average temperature increase to 1.5°C compared to 2°C above pre-industrial levels could reduce the negative impacts on biodiversity, especially in the most vulnerable ecosystems, such as small island and arctic ecosystems,

1. *Adopts* the voluntary guidelines for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction, contained in the annex to the present decision;

2. *Encourages* Parties, other Governments and relevant organizations, taking into account domestic priorities, circumstances and capabilities, to make use of the voluntary guidelines, in line with the ecosystem approach,[162] when designing and implementing ecosystem-based approaches to climate change adaptation and disaster risk reduction, recognizing that this may also contribute to climate change mitigation;

3. *Also encourages* Parties, other Governments and relevant organizations, when undertaking the design, implementation and monitoring of ecosystem-based approaches to climate change adaptation and disaster risk reduction:

(a) To conduct such activities with the full and effective participation of indigenous peoples and local communities, including indigenous women and youth, appropriately recognizing and supporting the governance, management and conservation of the territories and areas of indigenous peoples and local communities; to encourage activities at the local level led by indigenous peoples and local communities; and to include consideration and integration of indigenous and traditional knowledge, practices and institutions, subject to the free, prior and informed consent of indigenous peoples and local communities, as appropriate, and consistent with national policies, regulations and national circumstances;

(b) To ensure that the activities do not contribute to the drivers of biodiversity and ecosystem damage and loss, such as the introduction of invasive alien species or unsustainable forestry and agriculture, among others;

(c) To take into account transboundary approaches at the regional level;

(d) To enhance synergies among different policies and implementation strategies;

(e) To engage broadly with civil society organizations, the private sector and other key actors;

(f) To encourage, where relevant, activities at the local level which support vulnerable groups, including women, youth and the elderly;

4. *Encourages* Parties, pursuant to decisions IX/16, X/33, XII/20, XIII/4 and XIII/5, to further strengthen their efforts:

[162] Decision VII/11.

(a) To identify regions, ecosystems and components of biodiversity that are or will become vulnerable to climate change, and assess the current and future threats to and impacts on biodiversity and biodiversity-based livelihoods, as a result of climate change, while taking into account their important contribution to climate change adaptation and disaster risk reduction;

(b) To integrate climate change concerns and related national priorities into national biodiversity strategies and action plans and to integrate biodiversity considerations into national policies, strategies and plans on climate change;

(c) To promote ecosystem restoration and sustainable management post-restoration;

(d) To take appropriate actions to address and reduce the negative impacts of climate change, and to enhance the positive and minimize the negative impacts of climate change mitigation and adaptation activities on ecosystem functions and services, biodiversity and biodiversity-based livelihoods;

(e) To put in place monitoring systems and/or tools to monitor and assess the impacts of climate change on biodiversity and biodiversity-based livelihoods, in particular those of indigenous peoples and local communities, as well as to assess the effectiveness of ecosystem-based approaches for adaptation, mitigation and disaster risk reduction;

(f) To include information on the above in their reports to the Convention;

5. *Also encourages* Parties and other Governments:

(a) To foster a coherent, integrated and co-beneficial implementation of the actions under the Paris Agreement,[163] the 2030 Agenda for Sustainable Development,[164] other relevant international frameworks, and the Convention on Biological Diversity, including the Strategic Plan for Biodiversity 2011-2020[165] and the future post-2020 global biodiversity framework;

(b) To integrate ecosystem-based approaches when updating their nationally determined contributions, where appropriate, and pursuing domestic climate action under the Paris Agreement, taking into account the importance of ensuring the integrity and functionality of all ecosystems, including oceans, and the protection of biodiversity;

6. *Welcomes* the assessment by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on land degradation and restoration, and *endorses* its key messages that support ecosystem-based approaches to climate change adaptation, mitigation and disaster risk reduction;

7. *Encourages* Parties to collaborate on the conservation, restoration and wise/sustainable use of wetlands so that their importance, within the context of climate change and disaster risk reduction, is recognized, and to support the initiative for a joint declaration on the collaboration on peatland conservation, restoration and wise use in the context of climate change and disaster risk reduction among relevant multilateral environmental agreements;[166]

8. *Invites* Parties to provide, on a voluntary basis, information on activities carried out to implement the voluntary guidelines for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction, and the results produced, and to make this information available through the clearing-house mechanism and other relevant platforms;

9. *Also invites* the Friends of Ecosystem-based Adaptation and the Partnership for Environment and Disaster Risk Reduction, and their respective members, to continue to support Parties in their efforts to promote ecosystem-based approaches to climate change adaptation and disaster risk reduction;

---

[163] United Nations, *Treaty Series*, Registration No. I-54113.

[164] See General Assembly resolution 70/1 of 25 September 2015.

[165] Decision X/2.

[166] Wording is pending the consideration of this item by the Conference of the Contracting Parties to the Ramsar Convention on Wetlands at its thirteenth meeting, in October 2018.

10. *Requests* the Executive Secretary, subject to the availability of resources, and *invites* Parties, other Governments and international organizations, in a position to do so, to support Parties in undertaking ecosystem-based approaches to climate change adaptation and disaster risk reduction by making use, among other things, of the voluntary guidelines for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction and by, among other things, at all relevant levels:

(a) Providing capacity-building;

(b) Promoting awareness-raising;

(c) Supporting the use of tools, including community-based monitoring and information systems of indigenous peoples and local communities;

(d) Supporting, in particular, developing countries, especially least developed countries and small island developing States, taking into account the needs of countries that are most vulnerable to climate change;

11. *Requests* the Executive Secretary, in collaboration with Parties, other Governments, the secretariats of relevant multilateral environmental agreements, and other organizations:

(a) To update, the guidance, tools and information on initiatives available in the voluntary guidelines for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction,[167] as necessary, and based on information provided by Parties in accordance with paragraph 8;

(b) To compile case studies at national, regional and international levels on the implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction;

(c) To make the above available through the clearing-house mechanism;

12. [*Also requests* the Executive Secretary, subject to the availability of resources:

(a) To review new scientific and technical information with respect to the impacts of climate change on biodiversity, the role of ecosystems for climate change adaptation, mitigation and disaster risk reduction, and ecosystem restoration and sustainable land management, including by taking into account the findings of the special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty published by the Intergovernmental Panel on Climate Change;

(b) To prepare a report on potential implications of the above for the work of the Convention for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting to be held prior to the fifteenth meeting of the Conference of the Parties;]

13. [*Further requests* the Executive Secretary to consider the linkages between biodiversity and climate change in the preparation of the post-2020 global biodiversity framework;]

14. *Requests* the Executive Secretary to liaise with the secretariats of relevant multilateral environmental agreements, including the Joint Liaison Group of the Rio Conventions and the Liaison Group of Biodiversity-related Conventions, to promote synergies and coordinate activities related to climate change adaptation and mitigation, such as the organization of back-to-back meetings and joint activities, where appropriate;

15. *Invites* Parties, other Governments, funding organizations and relevant organizations, in a position to do so, to provide support for activities related to ecosystem-based approaches to climate change adaptation and disaster risk reduction.

[167] CBD/SBSTTA/22/INF/1.

Annex

VOLUNTARY GUIDELINES FOR THE DESIGN AND EFFECTIVE IMPLEMENTATION OF ECOSYSTEM-BASED APPROACHES TO CLIMATE CHANGE ADAPTATION AND DISASTER RISK REDUCTION

Table of contents

1. Introduction

1. Ecosystem-based approaches to climate change adaptation and disaster risk reduction are holistic approaches that use biodiversity, and ecosystem functions and services to manage the risks of climate-related impacts and disasters. Ecosystem-based adaptation (EbA) is the use of biodiversity and ecosystem functions and services, as part of an overall adaptation strategy, contributing to the well-being of societies, including indigenous peoples and local communities, and helping people adapt to the adverse effects of climate change. EbA aims to maintain and increase the resilience and reduce the vulnerability of ecosystems and people in the face of the adverse effects of climate change.[168]

2. Ecosystem-based disaster risk reduction (Eco-DRR) is the holistic, sustainable management, conservation and restoration of ecosystems to reduce disaster risk, with the aim of achieving sustainable and resilient development.[169]

3. These voluntary guidelines for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction have been prepared pursuant to paragraph 10 of decision XIII/4. The voluntary guidelines are intended to be used by Parties, other Governments, relevant organizations, and indigenous peoples and local communities, business, the private sector and civil society as a flexible framework for planning and implementing EbA and Eco-DRR. The voluntary guidelines may also contribute to an objective of the

[168] Derived from CBD Technical Series 41. 2009. Connecting Biodiversity and Climate Change Mitigation and Adaptation: Report of the Second Ad Hoc Technical Expert Group on Biodiversity and Climate Change.

[169] Estrella, M. and N. Saalismaa. 2013. Ecosystem-based Disaster Risk Reduction: An Overview, In: Renaud, F., Sudmeier-Rieux, K. and M. Estrella (eds.), *The Role of Ecosystem Management in Disaster Risk Reduction*. Tokyo: UNU Press.

national adaptation plan guidelines, under the United Nations Framework Convention on Climate Change, to reduce vulnerability to the impacts of climate change by building resilience and adaptive capacity.

1.1. Overview of the voluntary guidelines

4. The guidelines begin with an overall introduction to the mandate and basic terminology of EbA and Eco-DRR. Section 2 presents principles and safeguards that provide standards and measures to bear in mind during all of the steps of planning and implementation presented in section 4. Section 3 presents other important overarching considerations on: integrating knowledge, technologies, practices and efforts of indigenous peoples and local communities, mainstreaming, and raising awareness and building capacity. The overarching considerations should also be borne in mind when undertaking the steps of planning and implementation in section 4. Section 4 presents a step-wise approach intended to work iteratively for EbA and Eco-DRR planning and implementation, along with suggested practical actions. A supplementary note[170], including a primer for policymakers, tools linked with the stepwise process, further detailed actions, advocacy briefs for more effective outreach into sectors, as well as supporting references, glossary, and lists of policies and other relevant guidelines is also available. It also contains a diagram and table to illustrate how the principles, safeguards, overarching considerations, and the stepwise approach work together.

1.2. What are ecosystem-based approaches to climate change adaptation and disaster risk reduction?

5. The Convention on Biological Diversity published Technical Series 85[171] which presents a synthesis report on experiences with the implementation of EbA and Eco-DRR. It provides detailed information on experiences with policy and legal frameworks, mainstreaming, integrating gender and the contribution of indigenous peoples and local communities. Additional examples of EbA and Eco-DRR activities are presented in the table below.

Table. Examples of EbA and Eco-DRR interventions and outcomes[172]

Hazard/climate change impact	*Ecosystem type*	*EbA or Eco-DRR intervention options*	*Outcome*
Drought Soil erosion Erratic rainfall	Mountains and forests	Sustainable mountain wetland management	Improved water regulation Erosion prevention Improved water storage capacity
		Forest and pasture restoration	
		Restoration of pastures with deep-rooting native species	
Erratic rainfall Flood Drought	Inland waters	Conservation of wetlands and peatlands	Improved water storage capacity Flood risk reduction Improved water provisioning
		River basin restoration	
		Transboundary water governance and ecosystem restoration	
Erratic rainfall Temperature increase Shift of seasons Drought	Agriculture and drylands	Ecosystem restoration and agroforestry	Improved water storage capacity Adaptation to higher temperatures Adaptation to shifting seasons Improved water provisioning
		Intercropping of adapted species	
		Using trees to adapt to changing dry seasons	
		Sustainable livestock management and pasture restoration	
		Drought resilience by sustainable dryland management	
Extreme heat Temperature increase Floods Erratic rainfall	Urban	Green aeration corridors for cities	Heat wave buffering Adaptation to higher temperatures Flood risk reduction Improved water regulation
		Storm water management by green spaces	
		River restoration in urban areas	
		Green facades for buildings	
Storm surges Cyclones Sea level rise	Marine and coastal	Mangrove restoration and coastal protection	Storm and cyclone risk reduction Flood risk reduction
		Coastal realignment	

[170] CBD/SBSTTA/22/INF/1.

[171] *Synthesis Report on Experiences with Ecosystem-Based Approaches to Climate Change Adaptation and Disaster Risk Reduction* (https://www.cbd.int/doc/publications/cbd-ts-85-en.pdf)

[172] *Source*: PANORAMA database https://panorama.solutions/en/portal/ecosystem-based-adaptation

Hazard/climate change impact	*Ecosystem type*	*EbA or Eco-DRR intervention options*	*Outcome*
Salinization Temperature increase Ocean acidification		Sustainable fishing and mangrove rehabilitation	Improved water quality Adaptation to higher temperatures
		Coral reef restoration	

6. EbA and Eco-DRR have the following characteristics:

(a) Enhance resilience and adaptive capacity and reduce social and environmental vulnerabilities in the face of the risks associated with the impacts of climate change, contributing to incremental and transformative adaptation and disaster risk reduction;

(b) Generate societal benefits, contributing to sustainable and resilient development using equitable, transparent and participatory approaches;

(c) Make use of biodiversity and ecosystem functions and services through sustainably managing, conserving and restoring ecosystems;

(d) Form part of overall strategies for adaptation and risk reduction that are supported by policies at multiple levels, and encourage equitable governance while enhancing capacity.

2. Principles and safeguards

7. The voluntary guidelines are underpinned by principles and safeguards that were developed by reviewing existing literature and guidelines on EbA and Eco-DRR[173] and complement other principles and guidelines[174] adopted under the Convention or under other bodies. The safeguards are social and environmental measures to avoid unintended consequences of EbA and Eco-DRR to people, ecosystems and biodiversity; they also facilitate transparency throughout all stages of planning and implementation, and promote the realization of benefits.

2.1. Principles

8. The principles integrate elements of EbA and Eco-DRR practice and serve as high-level standards to guide planning and implementation. They are clustered into themes: building resilience and enhancing adaptive capacity, inclusivity and equity, consideration of multiple scales, and effectiveness and efficiency. The guidelines in section 3 provide suggested steps, methodologies and associated tools to implement actions on EbA and Eco-DRR according to the principles and safeguards.

Principles for building resilience and enhancing adaptive capacity through EbA and Eco-DRR

1 Consider a full range of ecosystem-based approaches to enhance resilience of social-ecological systems as a part of overall adaptation and disaster risk reduction strategies.

2 Use disaster response as an opportunity to build back better for enhancing adaptive capacity and resilience[175] and integrate ecosystem considerations throughout all stages of disaster management.

3 Apply a precautionary approach[176] in planning and implementing EbA and Eco-DRR interventions.

Principles for ensuring inclusivity and equity in planning and implementation

4 Plan and implement EbA and Eco-DRR interventions to prevent and avoid the disproportionate impacts of climate change and disaster risk on ecosystems as well as vulnerable groups, indigenous peoples and local communities, women and girls.

Principles for achieving EbA and Eco-DRR on multiple scales

[173] Including "Guidance on Enhancing Positive and Minimizing Negative Impacts on Biodiversity of Climate Change Adaptation Activities" (UNEP/CBD/SBSTTA/20/INF/1).

[174] See Ecosystem restoration: short-term action plan (decision XIII/5); the United Nations Declaration on the Rights of Indigenous Peoples; and Principles, Guidelines and Other Tools Developed under the Convention, available at https://www.cbd.int/guidelines/.

[175] The use of the recovery, rehabilitation and reconstruction phases after a disaster to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies and the environment (UNISDR definition of "build back better", 2017, as recommended by the open-ended intergovernmental expert working group on terminology relating to disaster risk reduction (A/71/644 and Corr.1) and endorsed by the United Nations General Assembly (see resolution 71/276)).

[176] The precautionary approach is stated in the preamble of the Convention on Biological Diversity: "Where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat."

5	Design EbA and Eco-DRR interventions at the appropriate scales, recognizing that some EbA and Eco-DRR benefits are only apparent at larger temporal and spatial scales.
6	Ensure that EbA and Eco-DRR are sectorally cross-cutting and involve collaboration, coordination, and cooperation of stakeholders and rights holders.
Principles for EbA and Eco-DRR effectiveness and efficiency	
7	Ensure that EbA and Eco-DRR interventions are evidenced-based, integrate indigenous and traditional knowledge, where available, and are supported by the best available science, research, data, practical experience, and diverse knowledge systems.
8	Incorporate mechanisms that facilitate adaptive management and active learning into EbA and Eco-DRR, including continuous monitoring and evaluation at all stages of planning and implementation.
9	Identify and assess limitations and minimize potential trade-offs of EbA and Eco-DRR interventions.
10	Maximize synergies in achieving multiple benefits, including for biodiversity, conservation, sustainable development, gender equality, health, adaptation, and risk reduction.

Safeguards for effective planning and implementation of EbA and Eco-DRR

Applying environmental impact assessments and robust monitoring and evaluation	1. EbA and Eco-DRR should be subject, as appropriate, to environmental impact assessments including social and cultural assessments (referring to the Akwé: Kon guidelines) at the earliest stage of project design, and subject to robust monitoring and evaluation systems.
Prevention of transfer of risks and impacts	2. EbA and Eco-DRR should avoid adverse impacts on biodiversity or people, and should not result in the displacement of risks or impacts from one area or group to another.
Prevention of harm to biodiversity, ecosystems, and ecosystem functions and services	3. EbA and Eco-DRR, including disaster response, recovery and reconstruction measures, should avoid the degradation of natural habitat, loss of biodiversity or the introduction of invasive species, and should not create or exacerbate vulnerabilities to future disasters.
	4. EbA and Eco-DRR should promote and enhance biodiversity and ecosystem functions and services, including through rehabilitation/restoration and conservation measures, as part of post-disaster needs assessment and recovery and reconstruction plans.
Sustainable resource use	5. EbA and Eco-DRR should neither result in unsustainable resource use nor enhance the drivers of climate change and disaster risks, and should strive to maximize energy efficiency and minimize material resource use.
Promotion of full, effective and inclusive participation	6. EbA and Eco-DRR should ensure full and effective participation of the people concerned, including indigenous peoples and local communities, women, minorities and the most vulnerable, including the provisioning of adequate opportunities for informed involvement.
Fair and equitable access to benefits	7. EbA and Eco-DRR should promote fair and equitable access to benefits and should not exacerbate existing inequities, particularly with respect to marginalized or vulnerable groups. EbA and Eco-DRR interventions should meet national labour standards, protecting participants against exploitative practices, discrimination and work that is hazardous to their well-being.
Transparent governance and access to information	8. EbA and Eco-DRR should promote transparent governance by supporting rights to access to information, providing all stakeholders and rights holders, particularly indigenous peoples and local communities, with information in a timely manner, and supporting the further collection and dissemination of knowledge.
Respecting rights of women and men from indigenous peoples and local communities	9. EbA and Eco-DRR measures should respect the rights of women and men from indigenous peoples and local communities, including access to and use of physical and cultural heritage.

3. Overarching considerations for EbA and eco-DRR design and implementation

9. When undertaking the stepwise process for planning and implementing EbA and Eco-DRR provided in section 4, there are three main overarching considerations to bear in mind at each step: integrating knowledge,

technologies, practices and efforts of indigenous peoples and local communities; mainstreaming of EbA and Eco-DRR; and raising awareness and building capacity. Taking these actions into account can enhance uptake of EbA and Eco-DRR approaches, and improve effectiveness and efficiencies, enabling more and better outcomes from the interventions.

3.1. Integrating knowledge, technologies, practices and efforts of indigenous peoples and local communities

10. Indigenous peoples and local communities have managed variability, uncertainty and change through multigenerational histories of interaction with the environment. Indigenous and traditional knowledge and coping strategies can thus form an important basis for climate change and disaster risk reduction responses, complementing established evidence, and bridging gaps in information. Indigenous, traditional and local knowledge systems – and forms of analysis and documentation, such as community mapping – can play a significant role, similarly to early warning systems, in identifying and monitoring climatic, weather and biodiversity changes and impending natural hazards. Ecosystem-based approaches can also serve to bring back abandoned practices, such as indigenous and traditional agricultural practices. Integrating the knowledge of indigenous peoples and local communities also involves an appreciation of their *cosmovisión*,[177] and an acknowledgement of their role as knowledge holders and rights holders. Ways to incorporate indigenous and traditional knowledge and practices in EbA and Eco-DRR planning and implementation throughout all stages of planning and implementation include the following:

Key actions

(a) Discover and document linkages between local, indigenous and traditional knowledge and practices and the goals and objectives of climate change adaptation and disaster risk reduction;

(b) Consult multi-stakeholder working groups, especially indigenous peoples and local communities, to facilitate knowledge-sharing across sectors on the role of ecosystems in adaptation and disaster risk reduction;

(c) Put in place effective participatory and transparent mechanisms to obtain the best available evidence;

(d) Integrate the knowledge of indigenous peoples and local communities into assessments after obtaining free prior and informed consent.

3.2. Mainstreaming EbA and Eco-DRR

Purpose

11. Mainstreaming EbA and Eco-DRR is the integration of ecosystem-based approaches into climate- and disaster-risk planning and decision-making processes at all levels. Mainstreaming may start with integrating ecosystem considerations into adaptation and disaster-risk reduction objectives, strategies, policies, measures or operations so that they become part of national and regional development policies, processes and budgets at all levels and stages. Mainstreaming enhances the effectiveness, efficiency, and longevity of EbA and Eco-DRR initiatives by embedding their principles into local, municipal and national policies, planning, assessments, financing, training, and awareness campaigns, among other policy tools. The overall goal is enhanced support and implementation of EbA and Eco-DRR, where it proves effective.

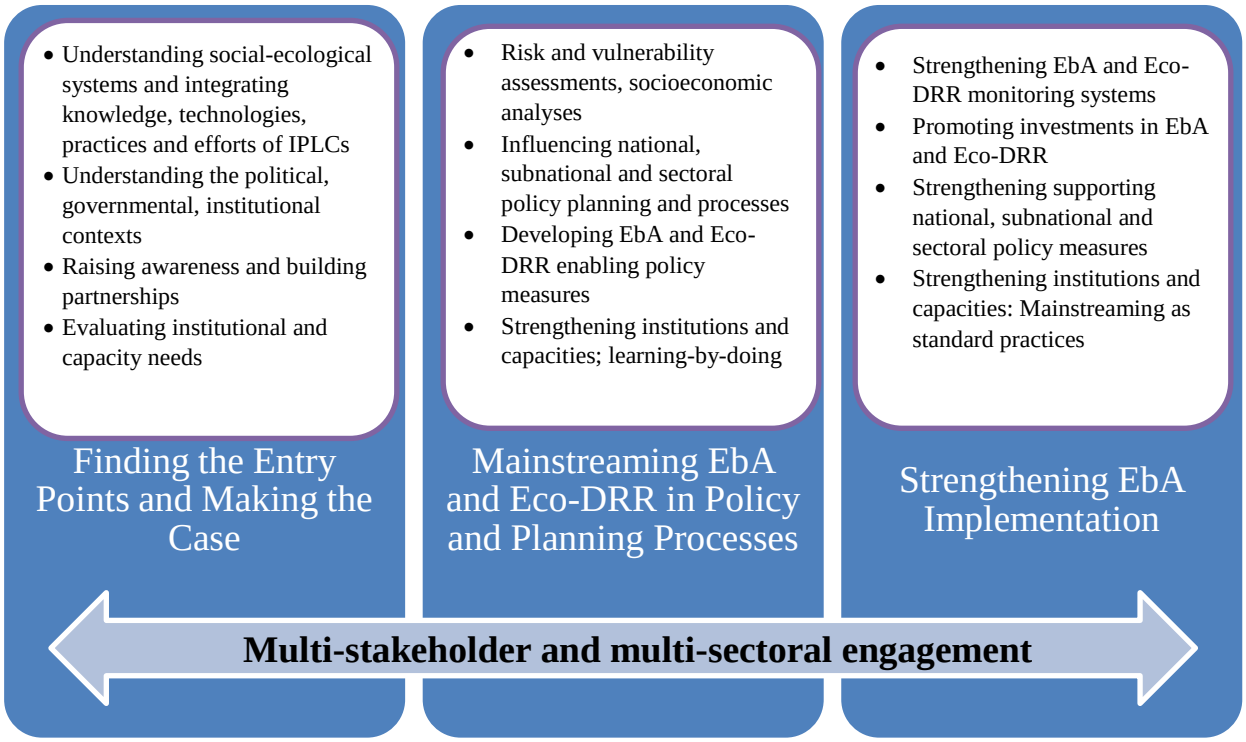
12. Mainstreaming occurs continuously throughout EbA and Eco-DRR planning and implementation. The process begins in Step A with the achievement of a broad understanding of the political and institutional set-up of the target system, which enables the identification of potential entry points for mainstreaming. Other key components of mainstreaming include enhancing sectoral outreach, raising awareness, and capacity-building.

13. When mainstreaming EbA and eco-DRR, it is important to align with national and subnational development frameworks and mainstream into relevant plans, policies and practice at multiple scales in order to enhance long-term sustainability and possibilities for funding (Figure 1 and Box 1). It is also important to align with international frameworks and conventions, such as the Sustainable Development Goals and the Strategic Plan for Biodiversity 2011-2020. It is also important to incorporate a climate and disaster risk reduction lens, when implementing environmental impact assessments and strategic environmental assessments, to prevent unintended impacts that may exacerbate risk and promote EbA and Eco-DRR measures.

[177] A worldview that has evolved over time that integrates physical and spiritual aspects (adapted from the Indigenous Peoples' Restoration Network).

14. A sample framework for mainstreaming is shown in Figure 1. Tools and further detailed actions accompanying this step are available as supplementary information in the "Toolbox for mainstreaming adaptation and DRR".[178]

Figure 1. Example framework for mainstreaming EbA and Eco-DRR in development planning



Note: Adapted from: World Wildlife Fund (2013), *Operational Framework for Ecosystem-based Adaptation: Implementing and Mainstreaming Ecosystem-based Adaptation Responses in the Greater Mekong Sub-Region*; and UNDP-UNEP (2011), *Mainstreaming Climate Change Adaptation into Development Planning: A Guide for Practitioners*.

15. A key aspect of mainstreaming is finding appropriate entry points for integrating EbA and Eco-DRR into concrete but often also complex policy and planning frameworks and decision-making processes. Entry points can be dynamic, depending on three key aspects:

(a) The awareness of stakeholders about an existing problem, challenge or risk;

(b) Available solutions, proposals, tools and knowledge;

(c) Political will to act, mandates and roles.

16. If all three aspects come together in favourable ways, there is a "momentum" for policy change. In cases of disaster and states of emergency, there is generally openness towards stakeholders' needs, innovative tools and approaches, joint searches for best available solutions, and a willingness to invest and (re)build better. These are important opportunities to include EbA or Eco-DRR aspects. Entry points may occur at all levels of government, and can imply different levels of governance, or collaboration with the private sector.

17. In general, entry points for mainstreaming may be found in:

(a) The development or revision of policies and plans, e.g. development or sectoral plans, nationally determined contributions, national adaptation plans, national biodiversity strategies and action plans, strategic environmental assessments, land-use plans;

(b) Command and control instruments, e.g. climate change and environmental laws, standards, environmental impact assessments, and disaster risk management;

[178] CBD/SBSTTA/22/INF/1.

(c) Economic and fiscal instruments, e.g. investment programmes, funds, subsidies, taxes, fees;

(d) Educational and awareness-raising measures, e.g. environmental education, extension programmes, technical careers and university curricula;

(e) Voluntary measures, e.g. environmental agreements with private landowners, or the definition of standards;

(f) Measures that guarantee the free prior informed consent, of indigenous peoples, where appropriate;

(g) Partnerships that enable the full and effective participation of civil society organizations, indigenous peoples and local communities, women and youth.

18. As emphasized throughout the EbA/Eco-DRR planning and implementation process, reaching out to sectors is key to raising awareness of and integrating EbA and Eco-DRR into sectoral plans and national-level planning, and encouraging cross-sectoral collaboration for joint implementation.

Box 1. Opportunities for mainstreaming EbA and Eco-DRR into funding priorities

EbA and Eco-DRR contribute to multiple objectives, including development, disaster risk, adaptation, mitigation, food and water security, and to ensuring risk-informed investments. The cross-sectoral and transdisciplinary approaches of EbA and Eco-DRR, and the potential realization of multiple benefits, offer several opportunities to attract/enhance funding.

- Encourage new financial incentives for investments in sustainable ecosystem management that emphasize ecosystems as part of adaptation and disaster risk planning. Examples include developing incentive programmes for farmers to implement practices that contribute to maintaining resilient ecosystems, such as agroforestry and conservation tillage.
- Unlock new investments for EbA and Eco-DRR through the climate-proofing of existing investment portfolios.
- Work with the private sector (including insurance, tourism, agriculture and water sectors) to harness their expertise, resources and networks. This helps in encouraging and scaling up investments in EbA and Eco-DRR, and identifying public-private partnerships.
- Engage government regulatory bodies to support and endorse private-sector investments in natural infrastructure and EbA and Eco-DRR.
- Identify partnerships with industry associations that can aid in the identification of climate risks, impacts and adaptation strategies. Examples include the development of climate risk assessment tools for use by private-sector investors and insurance companies, adoption of hydro-meteorological and climate information services, and working with developers to improve land-use planning, including such EbA and Eco-DRR activities as ecosystem restoration.
- Create national-level incentive structures for EbA/Eco-DRR, especially for private landowners and companies.

The mainstreaming of EbA and Eco-DRR into funding priorities should ensure that initiatives adhere to the EbA and Eco-DRR principles and safeguards, with clear intentions to achieve enhanced social-ecological resilience to climate change impacts and disasters.

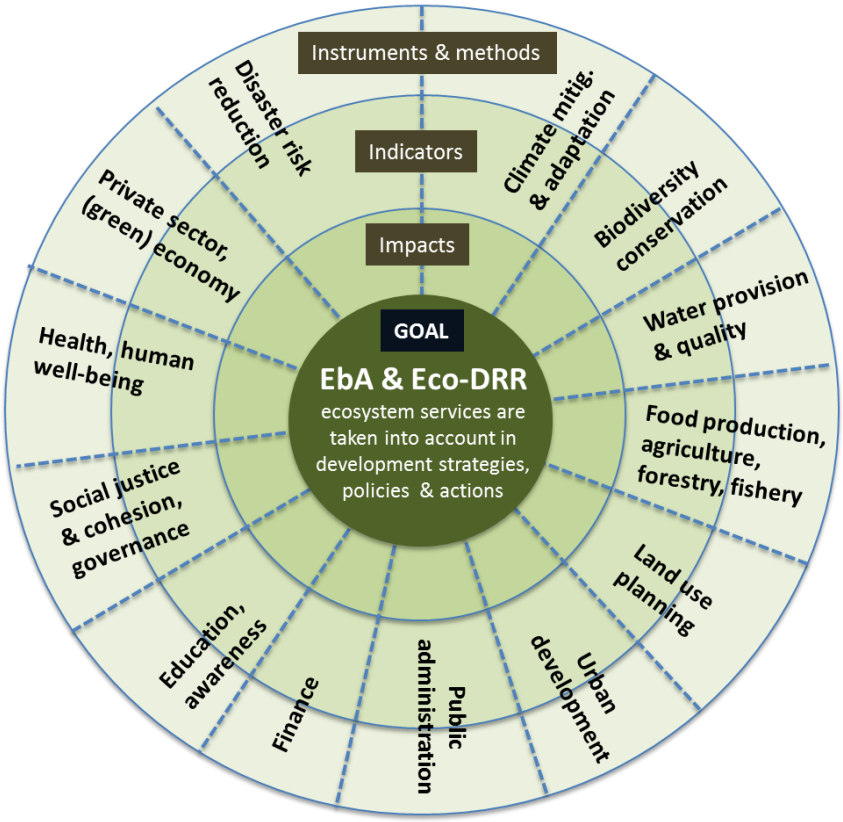
19. A key action in this respect is to consider integrating EbA and Eco-DRR in sectoral development plans at local, national and regional scales, such as in land use and water management, in both rural and urban contexts. Additional detailed actions, as well as briefs for supporting EBA and Eco-DRR practitioners to undertake outreach into sectors are provided as supplementary information tools.[179]

20. Considering the information provided above, a simple framework for mainstreaming EbA and Eco-DRR into development and sectoral plans is presented as supplementary information[180] in Figure 2.

[179] CBD/SBSTTA/22/INF/1.

[180] Ibid.

Figure 2. Entry points for mainstreaming EbA and Eco-DRR within key development and sectoral strategies by embedding ecosystem-based approaches into existing instruments and methods tools, selecting appropriate indicators for monitoring and evaluation, ensuring successful impact by developing a theory of change



3.3. Raising awareness and building capacity

21. Communicating the multiple benefits of EbA and Eco-DRR across sectors, communities of practice, and disciplines is crucial to enhancing uptake and sustainability of initiatives, in addition to opening avenues for funding. National and international policy agreements provide an opportunity to bridge the gap between different communities of practice. Interlinkages between ecosystem management, climate change and disaster risk reduction are all reflected in various targets under the Sustainable Development Goals, the Sendai Framework for Disaster Risk Reduction, the Paris Agreement on Climate Change, decisions of the Parties to the Rio conventions, and resolutions of Parties to the Ramsar Convention.[181]

22. A detailed list of suggested actions to raise awareness and build capacity is provided as supplementary information.[182] Some key actions include conducting baseline assessments of: (a) the existing skills and capacity of policymakers to address gaps and needs; and (b) institutional capacities and existing coordination mechanisms to identify needs for sustainably mainstreaming and implementing EbA and Eco-DRR. It is also useful to consider the different information and communication needs of different stakeholder groups in order to develop effective outreach, build a common knowledge base and seek to identify a common language among stakeholders to support their cooperation. There are many networks available to support these efforts and which offer platforms for sharing information and experience.[183]

[181] CBD/SBSTTA/22/INF/1, annex; *CBD Technical Series No. 85*, annexes II and III.

[182] CBD/SBSTTA/22/INF/1.

[183] Such as the Partnership for Environment and Disaster Risk Reduction (PEDRR), Friends of EbA (FEBA), PANORAMA, BES-Net (Biodiversity and Ecosystem Services Network), Ecoshape, Ecosystem Services Partnership's Thematic Working Group on Ecosystem Services and Disaster Risk Reduction, IUCN Thematic Groups, and CAP-Net (UNDP).

4. Stepwise approach to design and implementation of effective EbA and Eco-DRR

23. In developing a conceptual framework for these guidelines, various climate change adaptation and disaster risk reduction processes were considered, in addition to broader problem-solving approaches, such as the landscape and systems approach frameworks.[184,185] These guidelines employ a broad perspective on all ecosystems and include considerations for mainstreaming EbA and Eco-DRR. The guidelines integrate these approaches within a series of iterative steps. The process is intended to be flexible and adaptable to the needs of a project, programme or country, region, or landscape/seascape. The principles and safeguards for EbA and Eco-DRR are central to the planning and implementation process, and the overarching considerations are provided to improve effectiveness and efficiencies. Steps are linked to a toolbox providing a non-exhaustive selection of further guidance and tools available as supplementary information.[186] Stakeholder engagement, mainstreaming, capacity-building, and monitoring should be conducted throughout the process.

Step A. Understanding the social-ecological system

Purpose

24. This exploratory step is aimed at enhancing the understanding of the social-ecological system targeted for climate change adaptation and disaster risk management interventions. This includes identifying key features of the ecosystem/landscape, including biodiversity and ecosystem functions and services, and interlinkages with people. Step A enables addressing root causes of risk in coping with current and future climate change impacts. Additionally, it generates baseline information to ensure that EbA/Eco-DRR measures reconcile conservation and development needs and do not harm biodiversity, cultural diversity or ecosystem functions and services, or the people and livelihoods that depend on such functions and services, in line with the principles and safeguards.

25. Moreover, Step A includes in-depth stakeholder analysis and multi-stakeholder and participatory processes that feed into subsequent steps and, therefore, more detailed actions are presented to undertake these analyses (Box 2).

Outcome

(a) A defined social-ecological system of interest (biodiversity, ecosystems and services, socio-economic characteristics and dependencies) and related goals and objectives for adaptation and disaster risk reduction;

(b) Defined stakeholders and rights holders;

(c) Defined political and institutional entry points for EbA/Eco-DRR within the system.

Key actions

(a) Undertake an organizational self-assessment to understand strengths, weaknesses, capacity (including technical and financial) and opportunities for partnership on EbA and Eco-DRR. Based on this, a multi-disciplinary team (including but not limited to indigenous peoples and local communities, other experts, representatives from relevant sectors and government bodies) is organized for planning and implementing EbA and Eco-DRR;

(b) Identify and define the social-ecological system of interest (for example, a watershed, sector or policy);

(c) Conduct analyses and consultations, making use of the multidisciplinary team, in order to understand the drivers of risk, capacities and assets of communities, societies and economies, and the wider social and natural environment;

(d) Analyse the problem, determining its scope (geographical and temporal) by defining the boundaries of the system (see supporting guidance in the associated toolbox[187]), and set goals and objectives for adaptation and

[184] Including: National adaptation plans (UNFCCC), Operational Framework for EbA (WWF), Adaptation mainstreaming cycle (GIZ), Disaster risk management cycle (European Environmental Agency), Eco-DRR cycle (Sudmeier-Rieux 2013), Ecosystems protecting infrastructure and communities (IUCN, Monty et al. 2017), and the Landscape Approach (CARE Netherlands and Wetlands International).

[185] Additional details are provided in CBD/SBSTTA/22/INF/1.

[186] CBD/SBSTTA/22/INF/1.

[187] Available in CBD/SBSTTA/22/INF/1.

disaster risk reduction, without harm to biodiversity or ecosystem functions and services. The spatial scale for risk management, associated with the impacts of climate change, should be broad enough to address the root causes of risk and deliver multiple functions to stakeholders with different interests, and sufficiently small to make implementation feasible;

(e) Identify and map key provisioning, regulating, supporting and cultural services in the system that contribute to resilience. As 90 per cent of disasters are water-related, including drought or floods, understanding the hydrology of the landscape is crucial for scoping and designing EbA or Eco-DRR interventions;

(f) Determine initial entry points for EbA and Eco-DRR interventions;

(g) Screen relevant entry points for EbA and Eco-DRR, particularly in a policy, planning or budgeting cycle, at different scales and levels, where considerations of climate change risk and adaptation could be incorporated;

(h) Map out the institutional responsibilities for intersections of development, conservation, disaster risk reduction and climate change adaptation, including relevant sectors;

(i) Conduct an in-depth stakeholder analysis (Box 2).

Box 2. Stakeholder and rights-holder analysis and establishment of participatory mechanisms

An assessment of the system or landscape helps to analyse the problem, define the boundaries for climate change adaptation and disaster risk reduction interventions, and screen for entry points for EbA and Eco-DRR. This information should feed into an in-depth stakeholder analysis before engaging stakeholders throughout the adaptation/DRR process, and also iteratively benefits from information from stakeholders. Engagement of stakeholders and rights holders will increase ownership and likely also the success of any adaptation/DRR intervention. In-depth stakeholder analyses and development of multi-stakeholder processes and participatory mechanisms are key to meeting principles on equity and inclusivity and related safeguards. The Akwé: Kon Voluntary Guidelines (https://www.cbd.int/traditional/guidelines.shtml) outline procedural considerations for the conduct of cultural, environmental and social impact assessments, which are widely applicable to EbA and Eco-DRR.

Key Actions

- Identify indigenous peoples and local communities, stakeholders and rights holders likely to be affected by EbA and Eco-DRR interventions, and identify people, organizations and sectors that have influence over planning and implementation, using transparent participatory processes.
- Ensure full and effective participation of all relevant stakeholders and rights holders, including indigenous peoples and local communities, the poor, women, youth and the elderly, ensuring they have the capacity and sufficient human, technical, financial and legal resources to do so (in line with the safeguards).
- Engage with civil society organizations and/or community-based organizations to enable their effective participation.
- Where appropriate, identify and protect the ownership and access rights to areas for the use of biological resources.

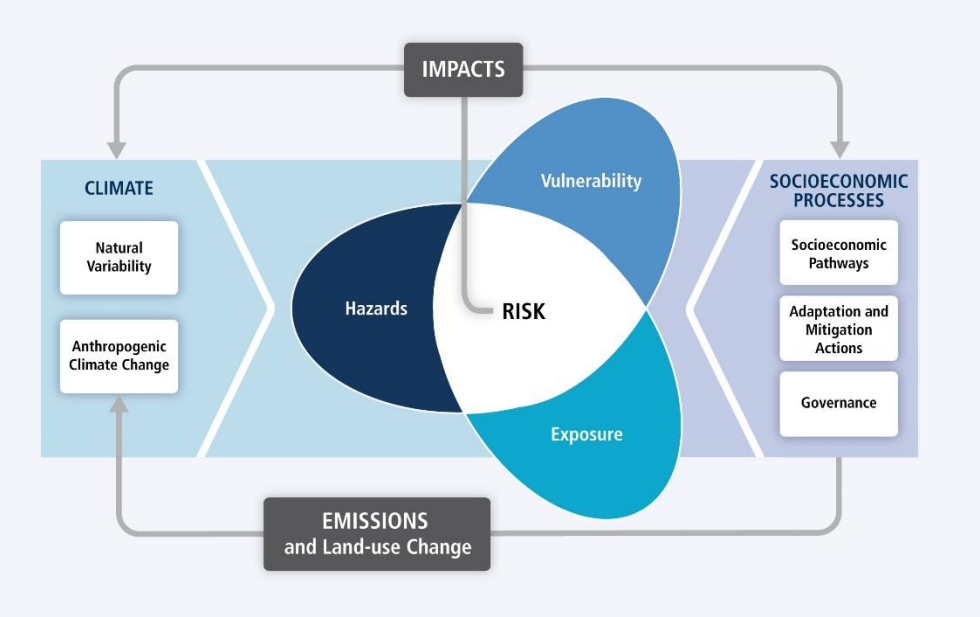
Step B. Assessing vulnerabilities and risks

Purpose

26. Vulnerability and risk assessments are undertaken to identify the main climate change and disaster risks and impacts on the social-ecological system of interest, for example, taking stock of biodiversity and ecosystem service information to identify species or ecosystems that are particularly vulnerable to the negative impacts of climate change. The assessments are then used to identify, appraise and select targeted adaptation and disaster risk reduction interventions in planning and design. Risk and vulnerability assessments also aid in allocating resources to where they are most needed, and in establishing baselines for monitoring the success of interventions.

27. Vulnerability is defined as the propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt. [188] Vulnerability, exposure and hazards together determine the risks of climate-related impacts (Figure 3). While they have different definitions and underlying assumptions, both risk and vulnerability assessments follow a similar logic.

Figure 3. Illustration of the core concepts of the contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change



Note: Risk of climate-related impacts results from the interaction of climate-related hazards (including hazardous events and trends) with the vulnerability and exposure of human and natural systems. Changes in both the climate system (left) and socioeconomic processes including adaptation and mitigation (right) are drivers of hazards, exposure and vulnerability (Intergovernmental Panel on Climate Change, *Climate Change 2014: Impacts, Adaptation and Vulnerability*, 2014).

28. Risk assessments generally consist of three steps: risk identification (finding, recognizing and describing risk); risk analysis (estimation of the probability of its occurrence and the severity of the potential impacts); and risk evaluation (comparing the level of risk with risk criteria to determine whether the risk and/or its magnitude is tolerable). These steps consider both climate and non-climate factors that generate a climate or disaster risk.

29. The advantage of an integrated risk and vulnerability assessment approach, as opposed to assessing only vulnerability, is that it addresses the large proportion of impacts that are triggered by hazardous events as well as integrates both climate change adaptation and disaster risk reduction approaches. A relatively new practice is moving from single hazard approaches to multi-hazard/multi-risk assessments. This approach can account for regions or classes of objects exposed to multiple hazards (e.g. storms and floods), and cascading effects, in which one hazard triggers another.

30. Key considerations and general activities for undertaking risk and vulnerability assessments are discussed below. Tools and examples and more detailed stepwise guidance are provided in the Step B Toolbox: Conducting risk and vulnerability assessments, available as supplementary information.[189]

[188] Intergovernmental Panel on Climate Change, *Fifth Assessment Report*, 2014.

[189] See CBD/SBSTTA/22/INF/1.

Outcome

(a) A risk and vulnerability profile in current and future climate scenarios of the social-ecological system covering hazards, exposure, and vulnerabilities (including sensitivities and adaptive capacities);

(b) Main drivers of risks and underlying causes.

Key actions

(a) Develop or make use of frameworks and concepts that recognize the linkages between people and ecosystems as integrated social-ecological systems, rather than viewing adaptation and risk reduction only through a human lens;

(b) Assess past and current climate and non-climate risks to the social-ecological system with flexible criteria that address the linkages between human and environmental systems:

(i) Consult previous assessments of climate change impacts on biodiversity and ecosystem functions and services; for example, national impact and vulnerability assessments prepared for UNFCCC, or vulnerability assessments from forest, agriculture, fisheries or other relevant sectors;

(ii) Conduct socioeconomic and ecological field surveys to identify vulnerabilities in both communities and ecosystems (including ecosystems that provide critical functions and services for climate change adaptation or DRR) (see supplementary information for further detail[190]);

(iii) Assess the drivers of current risks and vulnerability and, if possible, future risks based on climate change projections or scenarios that are at the appropriate scale, e.g. downscaled to the local level, where appropriate;

(c) Integrate quantitative approaches (based on scientific models) and qualitative approaches, which are grounded in expert judgment and indigenous and traditional knowledge (more detail is provided below). For example, use participatory rural appraisals to understand local perceptions and past experiences;

(d) Develop hazard and risk maps, such as through the use of participatory 3-D modelling of risks.

Step C. Identifying EbA and Eco-DRR options

Purpose

31. Having defined the boundaries of the social-ecological system/landscape and identified initial entry points for EbA and Eco-DRR, as well as vulnerabilities and risks (Step A), potential options are identified by the multi-stakeholder group within an overall strategy of climate change adaptation and disaster risk reduction. A list of relevant tools linked to this step is provided in the Step C Toolbox: Identifying EbA and Eco-DRR Strategies, available as supplementary information.[191]

Outcome

A list of available strategies and options for reducing the exposure and sensitivity of social-ecological systems to climate hazards and enhancing adaptive capacity

Key actions

(a) Identify existing coping strategies and responses to address the risks of climate change impacts and disasters, and/or those used to address current climate variability and socio-economic pressures on ecosystems and societies, and analyse viability for future climate impacts and risks;

(b) Refine the initial entry points identified for EbA/Eco-DRR. Criteria for selecting entry points can include:

(i) High probability of effectiveness from previous experiences in a similar social-ecological setting;

(ii) Strong support from stakeholders;

[190] Ibid.

[191] Available in CBD/SBSTTA/22/INF/1.

(c) In collaboration with multi-stakeholder groups, inclusive of stakeholders, rights holders and experts, formulate appropriate strategies, within an overall adaptation strategy, to address the risks and vulnerabilities identified in Step B;

(d) Assess specific issues and priorities of the vulnerable groups, sectors, and ecosystems;

(e) Ensure that EbA and Eco-DRR are planned at the local, community and household levels and at the landscape or catchment level, as appropriate;

(f) Identify the EbA and Eco-DRR strategies that meet the objectives defined in Step A, and that adhere to its main elements;

(g) Consider the qualification criteria and standards for EbA.[192]

Step D. Prioritizing, appraising and selecting EbA and Eco-DRR options

Purpose

32. In this step, the EbA and Eco-DRR options identified in Step C are prioritized, appraised and selected to achieve the goals set out in Step A, as part of an overall adaptation and disaster risk reduction strategy, for the system of interest. A list of relevant tools is provided as supplementary information[193] in the Step D Toolbox: Prioritizing, appraising and selecting EbA and Eco-DRR options.

33. Given the importance of evaluating trade-offs and limitations, more detailed actions are provided (Box 3). Associated tools are available in the Step D Toolbox: Prioritizing, appraising and selecting adaptation and DRR options and identifying trade-offs available as supplementary information.[194] Information on ways to increase scientific and technical knowledge of EbA and Eco-DRR approaches are also elaborated within supplementary information.[195]

Outcome

(a) List of prioritized options based on selected criteria;

(b) Selection of final options for implementation.

Key actions

(a) Using participatory approaches (Step A), identify the criteria/indicators to be used to prioritize and appraise the EbA and Eco-DRR options identified in Step C. For example, using multi-criteria analysis or cost-effectiveness to evaluate adaptation options;[196]

(b) Ensure that trade-offs and limitations of options are part of the appraisal process (Box 3), and include consideration of green or hybrid solutions, before grey, when more effective;

(c) Consider multiple values and benefits, including non-monetary, to capture the full value of different EbA and Eco-DRR options;

(d) Assign weights to the proposed criteria, and use the criteria to rank the EbA and Eco-DRR options;

(e) Prioritize and short-list EbA and Eco-DRR options based on the agreed-upon criteria;

(f) Make use of the multi-stakeholder group and consult other rights holders to identify the best options and develop a business case;

(g) Analyse the costs, benefits, impacts and trade-offs of different risk management scenarios, and the costs of inaction, to capture gains or losses in ecosystem functions and services provisioning that have an impact on adaptation and disaster risk reduction and resilience (e.g. consideration for wetlands);

---

[192] See "Making Ecosystem-based Adaptation Effective – A Framework for Defining Qualification Criteria and Quality Standards" (FEBA Technical Paper).

[193] See CBD/SBSTTA/22/INF/1.

[194] Ibid.

[195] Ibid.

[196] Methods for appraising the value of EbA and Eco-DRR activities, excerpted from Frontier Economics (2013), "The Economics of Climate Resilience: Appraising flood management initiatives – a case study" are available in CBD/SBSTTA/22/INF/1.

(h) Consider the sustainable use of local ecosystems, services and/or materials in EbA/Eco-DRR options that could bring additional local benefits and reduce carbon emissions from transport, rather than outsourced labour and materials;

(i) In appraising options, consider the costs and benefits of interventions over the long term, as the time period in economic comparison of various options is important, and consider both upfront capital and longer-term maintenance costs. For example, engineered structures, such as dykes, can be relatively inexpensive at the investment level but carry high maintenance costs, whereas ecosystem-based approaches, such as wetland restoration, may be less expensive in the long term and provide multiple benefits;

(j) Assess the strength of proposed EbA and Eco-DRR measures by examining how they adhere to the elements, principles and safeguards, considering available qualification criteria and standards;

(k) Before the design and implementation of selected projects (Step E), conduct environmental impact assessments (EIA) of the recommended options, ensuring that: (i) possible social and environmental impacts have been clearly identified and assessed; (ii) appropriate measures have been taken to avoid or, if not possible, mitigate risks; and (iii) the measures taken to avoid/mitigate risks are themselves monitored and reported on throughout project life cycles. The EIA should incorporate a summary of recommendations from past, ongoing and planned projects and programmes within the relevant geographic jurisdiction.

Box 3. Evaluating trade-offs and limitations

Part of the process of prioritizing, appraising and selecting adaptation/DRR options involves the identification and evaluation of potential trade-offs. Trade-offs may arise when an activity protects one group of people at the expense of another, or favours a particular ecosystem service over another. Some trade-offs are the result of deliberate decisions; others occur without knowledge or awareness. For example, the implementation of adaptation actions upstream may have effects on downstream communities, and at different times. Ecosystems are subject to climate change and, therefore, EbA, Eco-DRR and other practices that use ecosystem-based approaches should be designed to be robust in the face of current and projected impacts of climate change. Trade-offs and limitations should be considered and integrated within overall adaptation and disaster risk reduction planning and aligned with national policies and strategies. They should also be implemented alongside other measures of risk reduction, including avoidance of high-risk zones, improved building codes, early warning and evacuation procedures. A trade-off analysis across scales and considering multiple benefits can help to favour EbA and Eco-DRR options.

Key actions

- Develop indicators of short- and long-term changes across various spatial scales to detect potential trade-offs and limitations of EbA and Eco-DRR (see Step F for more detail).
- Use geospatial data and models (such as those available in InVEST (https://www.naturalcapitalproject.org/invest) to understand how changes in ecosystem structure and function, as a result of adaptation or DRR interventions, will affect ecosystem functions and services across a land- or seascape.
- Consider the full range of infrastructure options from “green” to “hybrid” to “hard” and their compatibility, recognizing that different combinations are needed in different situations.
- Ensure that EbA and Eco-DRR are informed by the best available science and indigenous and traditional knowledge to fully account for possible trade-offs and limitations.
- Ensure the integration of EbA and Eco-DRR into overall adaptation or disaster risk reduction strategies, in recognition of the multiple benefits and potential limitations of ecosystem-based approaches.
- Maximize multiple benefits and consider and minimize trade-offs or unintended consequences of EbA and Eco-DRR throughout all stages of planning and implementation, including accounting for uncertainties in climate projections and for different scenarios.

Step E. Project design and implementation

Purpose

34. In this step, the interventions selected in Step D are designed and implemented according to the principles and safeguards. Throughout the design and implementation, it is important to continually revisit the principles and safeguards and ensure ongoing stakeholder engagement, capacity-building, mainstreaming and monitoring.

35. Given the added importance of transboundary and cross-sectoral cooperation, coordination and policies, more detailed actions are provided (see Box 4). Associated tools are provided in the Step E toolbox: Project design and implementation, available as supplementary information.[197]

Outcome

A project design and implementation plan (including a finance strategy, capacity development strategy, defined actions for institutional and technical support measures)

Key actions

(a) Consider the EbA and Eco-DRR elements, principles and safeguards throughout design and implementation (See Step B);

(b) Consider the qualification criteria and standards for EbA;

(c) Design interventions at the appropriate scale to address the goals set out in Step A;

(d) Engage relevant experts, and strengthen linkages between the scientific community and project executors to ensure optimal and appropriate use of ecosystems for adaptation and DRR;

(e) Select appropriate tools and, if needed, plan for the development of new methodologies;

(f) Determine technical and financing requirements and develop a budget accordingly;

(g) Establish a workplan, including timelines of activities, milestones to achieve, multi-stakeholder consultations needed, and allocation of tasks and responsibilities;

(h) Develop strategies to reduce identified risks and trade-offs and enhance synergies (see Step D);

(i) Establish linkages between the project and national, subnational, and/or local development plans, strategies, and policies;

(j) Consider principles for building resilience and adaptive capacity in social-ecological systems (see

Box 4. Transboundary and cross-sectoral cooperation, coordination and policies

Climate change impacts and disaster risks extend beyond political boundaries; therefore, an integrated landscape or systems approach aids in problem-solving across sectors and boundaries. Transboundary cooperation can enable the sharing of costs and benefits and prevent potentially negative impacts of measures taken unilaterally. Transboundary cooperation can also provide opportunities for socioeconomic development and managing issues at appropriate ecosystem scales.

EbA and Eco-DRR interventions increasingly call for cooperation with other sectors, including agriculture, water, urban development and infrastructure.

Transboundary and cross-sectoral considerations can be integrated into EbA and Eco-DRR by:

- Integrating the different scales of critical ecosystem functioning needed for adaptation and disaster risk reduction in EbA and Eco-DRR;
- Greater coherence between regional/transboundary EbA and Eco-DRR-strategies and policies contributes to improved effectiveness of actions;
- Learning from well-established cross-sectoral planning mechanisms, such as integrated water resources management (IWRM), integrated coastal zone management (ICZM) and land-use planning, to strengthen cross-sectoral cooperation and enhance uptake of EbA and Eco-DRR into relevant sectoral frameworks (also applicable to mainstreaming EbA and Eco-DRR);
- Setting up a commission or task group with transboundary partners and sectors; representatives to develop a joint vision, goals and objectives for EbA and Eco-DRR;
- Developing a common understanding of vulnerabilities at the transboundary scale and for different sectors through the use of common models and scenarios and agreed-upon methodologies and sources of information;
- Adopting an iterative monitoring and evaluation process (see Step F) to ensure that transboundary and cross-sectoral EbA and Eco-DRR strategies continue to meet national adaptation and disaster risk reduction targets and maximize the potential for multiple benefits.

19

Box 5).

Box 5. Applying resilience thinking in EbA and Eco-DRR design

A resilience approach to sustainability focuses on building capacity to deal with unexpected change, such as the impacts of climate change and the risk of disaster. Applying a resilience lens to designing EbA and Eco-DRR interventions involves managing interactions between people and nature, as social-ecological systems, to ensure continued and resilient provisioning of essential ecosystem functions and services that provide adaptation and disaster risk functions. There are seven key principles in applying resilience thinking, distilled from a comprehensive review of different social and ecological factors that enhance the resilience of social-ecological systems and the ecosystem functions and services they provide (Stockholm Resilience Centre, 2014):

1. Maintain diversity and redundancy, for example, by maintaining biological and ecological diversity. Redundancy is the presence of multiple components that can perform the same function, can provide "insurance" within a system by allowing some components to compensate for the loss or failure of others.
2. Manage connectivity (the structure and strength with which resources, species or actors disperse, migrate or interact across patches, habitats or social domains in a social-ecological system), e.g. by enhancing landscape connectivity to support biodiversity and ecosystem functions and services that contribute to adaptation and risk reduction.
3. Manage slowly changing variables and feedbacks (two-way "connectors" between variables that can either reinforce (positive feedback) or dampen (negative feedback) change.
4. Foster complex adaptive systems thinking by adopting a systems framework approach (Step A).
5. Encourage learning, such as by exploring different and effective modalities for communications.
6. Broaden participation, such as by dedicating resources to enable effective participation.
7. Promote polycentric governance systems, including through multi-institutional cooperation across scales and cultures.

Step F. Monitoring and evaluation of EbA and Eco-DRR

Purpose

36. Monitoring and evaluation (M&E) of EbA and Eco-DRR are critical for assessing progress and efficiency and effectiveness of interventions. Monitoring enables adaptive management and is ideally carried out throughout the lifetime of the intervention. Evaluation assesses an ongoing or completed project, programme or policy, its design, implementation and results. M&E can encourage continual learning to help inform future policy and practice and make corresponding adjustments.

37. There is a movement towards integrating approaches for M&E from both adaptation and disaster risk reduction fields. A myriad of approaches and frameworks have been developed, including logical frameworks and results-based management. Key actions and considerations related to M&E are outlined below.[198] Tools associated with this step are available in the Step E Toolbox: Monitoring and evaluation of EbA and Eco-DRR, available as supplementary information.[199]

Outcome

A monitoring and evaluation framework that is realistic, operative and iterative, including protocol for data collection and evaluation, and information generated on outcomes and impacts of interventions

[198] Several of the key actions and considerations are based on the M&E Learning Brief (in development), to be published in 2018 by Deutsche Gesellschaft für Internationale Zusammenarbeit.

[199] See CBD/SBSTTA/22/INF/1.

Key actions

(a) Set up an M&E framework, establishing its objectives, audience (who uses the information from an M&E assessment), data collection, mode of dissemination of information, and available technical and financial capacity;

(b) Develop a results/outcomes framework within the M&E framework that details the expected effects of the EbA/Eco-DRR intervention, including short- and medium-term outcomes and long-term results;

(c) Develop indicators at the appropriate temporal and spatial scales to monitor the quantity and quality of change:

(i) Ensure that monitoring and evaluation include indicators[200] formulated to the SMART criteria, which are specific, measurable, achievable and attributable, relevant and realistic, time-bound, timely, trackable and targeted and/or the ADAPT principles (Adaptive, Dynamic, Active, Participatory, Thorough);

(ii) Ensure that indicators are vulnerability- and risk-oriented and focused, and that they are able to measure high risks versus low risks and how EbA/Eco-DRR interventions reduce risk over time. It is important to define "risk layers" and to prioritize which risks should be measured using indicators;

(iii) Use targets and indicators under the Sustainable Development Goals, Aichi Biodiversity Targets and other relevant frameworks to track progress in sustainable ecosystem management and biodiversity enhancement, which also deliver towards strengthening resilience to climate change impacts and disasters;

(iv) Align indicators with existing M&E frameworks where possible;

(d) Determine baselines for assessing effectiveness;

(e) Use appropriate participatory and inclusive tools for monitoring and evaluation of EbA and Eco-DRR, ensuring the engagement of local communities, stakeholders and rights holders.[201] Ensure the relevant experts are engaged, such as specialists on ecosystems/species status, and ecosystem function;

(f) Test EbA/Eco-DRR related indicators for local relevance.

[200] More information on indicators is available through the CBD website (https://www.cbd.int/indicators/default.shtml) and in the IPCC Fifth Assessment Report (see https://www.ipcc.ch/report/ar5/)

[201] See CBD/SBSTTA/22/INF/1, annex III.

Item 22. Mainstreaming of biodiversity within and across sectors

Health and biodiversity

The following is taken from recommendation XXI/3 of the Subsidiary Body on Scientific, Technical and Technological Advice and from paragraphs 18 and preceding preambular paragraphs of recommendation 2/3 of the Subsidiary Body on Implementation. The elements from the two recommendations have been integrated as per footnote 23 of SBI recommendation 2/3 as follows: The 2nd – 6th preambular paragraphs come from SBI recommendation 2/3 while the other preambular paragraphs come from SBSTTA recommendation XXI/3; operative paragraphs 1, 8 and 9, and 11-13 come from the SBI recommendation (paras. 18,19 and 20, and 21-23,respectively),while operative paragraphs 2-7, 10, and 14 come from the SBSTTA recommendation (paras. 1-6, 7, and 8, ,respectively). The reference to decision XIII/6 in the first preambular paragraph was redundant with the reference in the 6th preambular paragraph and has been omitted.

The Conference of the Parties,

Recalling decisions XII/21 on health and biodiversity,

Recalling decisions XIII/3, in which it considered the mainstreaming of biodiversity in the sectors of agriculture, forestry, fisheries and tourism as well as cross-cutting issues, and in which it decided to address, at its fourteenth meeting, the mainstreaming of biodiversity into the sectors of energy and mining, infrastructure, manufacturing and processing, and health,

Recognizing that the health sector, on the one hand, depends on biodiversity and the ecosystem functions and services that biodiversity underpins, and that the loss of biodiversity can impact the health sector negatively, and that, on the other hand, the health sector has potential impacts on biodiversity which may threaten the provision of ecosystem functions and services that are vital to humanity,

Stressing that mainstreaming biodiversity in the health sector is essential for halting the loss of biodiversity and for the achievement of the Strategic Plan for Biodiversity 2011-2020[202] and the goals and objectives of different multilateral agreements and international processes, including the 2030 Agenda for Sustainable Development,[203] and the Sustainable Development Goals,

Recognizing that, while policies and tools exist to address the conservation and sustainable use of biodiversity, there are still opportunities to mainstream biodiversity in the health sector, including in relation to strategic planning, decision-making and, economy-wide and sector-wide policies,

Recalling decision XIII/6 on health and biodiversity and the importance of this decision to the implementation of the 2030 Agenda for Sustainable Development and the achievement of the Sustainable Development Goals

Welcoming United Nations Environment Assembly resolution UNEP/EA.3/L.8/Rev.1 on environment and health,

Noting the reports issued by the Regional Office for Europe of the World Health Organization entitled *Urban green spaces and health: a review of evidence* (2016) [204] and *Urban green space interventions and health: a review of impacts and effectiveness* (2017),[205]

---

[202] Decision X/2, annex.

[203] See General Assembly resolution 70/1 of 25 September 2015 entitled "Transforming our world: the 2030 Agenda for Sustainable Development".

[204] http://www.euro.who.int/en/health-topics/environment-and-health/urban-health/publications/2016/urban-green-spaces-and-health-a-review-of-evidence-2016

[205] http://www.euro.who.int/en/health-topics/environment-and-health/urban-health/publications/2017/urban-green-space-interventions-and-health-a-review-of-impacts-and-effectiveness.-full-report-2017

Acknowledging that consideration of health-biodiversity linkages can contribute to improving several aspects of human health and well-being, including through the prevention and reduction of both infectious and non-communicable diseases, and by supporting nutrition and healthy diets,

Also acknowledging the importance of conservation and sustainable use of biodiversity and of traditional knowledge for the health of indigenous peoples and local communities,

Recognizing the importance of the human microbiome for human health, and the value of biodiverse green spaces in urban environments, protected areas and their physiological and psychological benefits, and further highlighting the importance of ecosystem-based approaches for the delivery of multiple benefits,

Acknowledging that accessible biodiverse green spaces can enhance human health benefits by providing contact with nature, including for children and the elderly,

Noting the opportunities to contribute to the achievement of the Aichi Biodiversity Targets, in particular Target 14, and the 2030 Agenda for Sustainable Development [206] and the Sustainable Development Goals, through the mainstreaming of health-biodiversity linkages into relevant sectors and initiatives, including those for health, environment, agriculture, finance, nutrition and food security, food safety, planning (including urban planning), climate change mitigation and adaptation, and disaster risk reduction,

Highlighting, in this respect, the importance of all dimensions and components of biodiversity, including plants, animals and micro-organisms, and the interactions among them, as well as their genetic resources and the ecosystems of which they are part,

1. *Welcomes* the consideration of the interlinkages between human health and biodiversity by the Seventy-first World Health Assembly;[207]

2. *Welcomes* the Guidance on integrating biodiversity considerations into One Health approaches,[208] *recognizes* the importance of ecosystem-based approaches for the delivery of multiple benefits to health and well-being and *encourages* Parties, and *invites* other Governments and relevant organizations to make use of the guidance, in accordance with national circumstances;

3. *Invites* Parties and other Governments to consider integrating One Health policies, plans or projects in their national biodiversity strategies and action plans, and, as appropriate, national health plans, and other instruments including those under the United Nations Framework Convention on Climate Change and the International Strategy for Disaster Risk Reduction, to jointly support the implementation of the Convention, the 2030 Agenda for Sustainable Development[206] and other relevant global commitments;

4. *Invite*s Parties, other Governments and other relevant stakeholders to consider gender-differentiated impacts and responses in the integration of biodiversity and health linkages in their policies, plans and actions;

5. *Invites* Parties, other Governments and relevant organizations and cooperation agencies to support capacity-building for the efficient and effective use of the Guidance on integrating biodiversity considerations into One Health approaches;

6. *Encourages* Parties to promote dialogue among ministries and agencies responsible for the sectors of health (including domestic animal and wildlife health), environment, pollution (such as marine plastic debris), pesticides, antimicrobial resistance, agriculture, nutrition and food security, food safety, planning (including urban planning), climate change adaptation and disaster risk reduction, to foster integrated approaches, with a view to enhancing implementation of the Strategic Plan for Biodiversity

---

[206] General Assembly resolution 70/1, annex.

[207] See World Health Organization document A71/11.

[208] CBD/SBSTTA/21/4, section III.

2011-2020[209] and the 2030 Agenda for Sustainable Development, including by mainstreaming biodiversity and health linkages into existing and future policies, plans and strategies, as appropriate;

7. *Encourages* Parties, and invites other Governments and relevant organizations to share their experience on implementing the Guidance on integrating biodiversity considerations in One Health approaches,[208] including through the clearing-house mechanism;

8. *Invites* Parties and other Governments, and relevant organizations to further develop communication, education and public awareness tools on the value for public health of the conservation and sustainable use of biodiversity and ecosystem-based approaches, with a view to mainstreaming biodiversity and developing biodiversity-inclusive One Health policies, plans and programmes in line with the objectives of the 2030 Agenda for Sustainable Development;

9. *Encourages* Parties, and other Governments and relevant stakeholders, in accordance with their national capacities and circumstances, priorities and regulations:

(a) To provide, where appropriate, effective incentives to mainstream biodiversity in the health sector, consistent with international obligations,

(b) To promote and strengthen best practices on sustainable consumption and production implemented in the health sectors that favour conservation and sustainable use of biodiversity;

10. *Invites* the World Health Organization, the World Organization for Animal Health, the Food and Agriculture Organization of the United Nations and other relevant organizations to consider ecosystem-based approaches in their efforts to strengthen the prevention of ill health;

11. *Invites* the World Health Organization, through its Executive Board:

(a) To support the implementation of the present decision and decision XIII/6 in cooperation with other relevant partners;

(b) To further support the development and implementation of measures, guidance and tools for promoting and supporting the mainstreaming of biodiversity and health linkages in the health sector, and to consider establishing a regular reporting mechanism for the progress of activities on biodiversity and health under the joint work programme of the Convention on Biological Diversity and the World Health Organization;

12. *Invites* donor and funding agencies in a position to do so to provide financial assistance for country-driven projects that address cross-sectoral mainstreaming of biodiversity and health when requested by developing country Parties, in particular the least developed countries among them, including small island developing States, and countries with economies in transition;

13. *Requests* the Executive Secretary, subject to the availability of financial resources, and *invites* the World Health Organization, in collaboration, as appropriate, with other members of the Inter-Liaison Group on Biodiversity and Health as well as other partners:

(a) To develop integrated science-based indicators, metrics and progress measurements tools on biodiversity and health;

(b) To develop targeted messaging approaches on mainstreaming biodiversity for the health sector, including as part of the delivery on the global communication strategy and messaging approaches as set out in decision XII/2;

(c) To develop a draft global action plan to mainstream biodiversity and health linkages into national policies, strategies, programmes and accounts, in order to further support Parties in the mainstreaming of biodiversity and health linkages, building upon decision XIII/6 and the guidance on integrating biodiversity considerations into One Health approaches.[210]

---

[209] Decision X/2.

[210] CBD/SBSTTA/21/4, section III.

14. *Requests* the Executive Secretary, subject to the availability of resources, and *invites* the World Health Organization and other members of the Inter-agency Liaison Group on Biodiversity and Health, and other partners, as appropriate, to collaborate:

(a) To promote and facilitate dialogues on biodiversity-health approaches with relevant national, regional and subregional stakeholders, as appropriate, in order to assist Parties in developing strategies to mainstream biodiversity-health linkages effectively, and in particular, to promote holistic One Health approaches;

(b) To co-convene further regional and subregional capacity-building workshops in all regions;

(c) To compile information on relevant research, experiences and best practices on the microbiome and human health, and on the design, management and implementation of production systems based on the conservation and sustainable use of biological diversity and traditional knowledge and the corresponding benefits to nutrition and healthy diets, particularly, but not restricted to, vulnerable and marginalized sectors;

(d) To explore a mechanism that would facilitate access to, regularly update, synthesize and disseminate scientific literature and other reports on health and biodiversity, with a view to supporting the development of good practice guidance;

(e) To report on progress to the Subsidiary Body on Scientific, Technical and Technological Advice at its twenty-third meeting and to the Subsidiary Body on Implementation at its third meeting.

Mainstreaming of biodiversity in the energy and mining, infrastructure, manufacturing and processing sectors

The following is taken from recommendation 2/3 of the Subsidiary Body on Implementation

The Conference of the Parties,

Recalling decisions XIII/3, in which it considered the mainstreaming of biodiversity in the sectors of agriculture, forestry, fisheries and tourism as well as cross-cutting issues, and in which it decided to address, at its fourteenth meeting, the mainstreaming of biodiversity into the sectors of energy and mining, infrastructure, manufacturing and processing, and health,

Also recalling the Cancun Declaration on Mainstreaming the Conservation and Sustainable Use of Biodiversity for Well-Being, adopted during the high-level segment in Cancun, Mexico, on 3 December 2016,[211] as well as the Sharm-El Sheikh Declaration, adopted during the high-level segment in Sharm El-Sheikh, Egypt, on 15 November 2018;[212]

Further recalling decision VIII/28 on the voluntary guidelines on biodiversity-inclusive impact assessment,

Recognizing that the energy and mining, infrastructure, manufacturing and processing, on the one hand, depend on biodiversity and the ecosystem functions and services that biodiversity underpins, and that the loss of biodiversity can impact these sectors negatively, and that, on the other hand, these sectors have potential impacts on biodiversity which may threaten the provision of ecosystem functions and services that are vital to humanity,

Stressing that mainstreaming biodiversity in the sectors of energy and mining, infrastructure, manufacturing and processing, is essential for halting the loss of biodiversity and for the achievement of

[211] UNEP/CBD/COP/13/24.

[212] Pending adoption during the high-level segment of the fourteenth meeting of the Conference of the Parties.

the Strategic Plan for Biodiversity 2011-2020[213] and the goals and objectives of different multilateral agreements and international processes, including the 2030 Agenda for Sustainable Development,[214] and the Sustainable Development Goals,

Emphasizing the important role of the business and financial sectors, indigenous peoples and local communities, civil society, local and subnational governments, academia, as well as women, youth and other relevant stakeholders in promoting and implementing the mainstreaming of biodiversity,

Acknowledging the work of various international organizations, relevant partner organizations and initiatives to advance biodiversity-related practices by businesses, such as that of the United Nations Environment Programme, One Planet Network, the United Nations Global Compact, the United Nations Statistics Division, the Convention on Migratory Species and its multi-stakeholder energy task force, the International Union for Conservation of Nature, the International Integrated Reporting Council, the Cambridge Institute for Sustainability Leadership, the Natural Capital Coalition and its biodiversity working group, and the Global Reporting Initiative, among others,

Taking note of the *Cities and Biodiversity Outlook,*[215] the Quito Declaration on Sustainable Cities and Settlements for All[216] and the report of the International Resource Panel,[217] and their key messages on the need to mainstream biodiversity at the city level,

Recognizing that mainstreaming is critical for achieving the objectives of the Convention, the Strategic Plan for Biodiversity 2011-2020, its Aichi Biodiversity Targets and the 2050 Vision for Biodiversity and should be one of the key elements of the future post-2020 framework for biodiversity in order to realize the transformational change required throughout society and economies, including changes in behaviour and decision-making at all levels,

1. *Welcomes* the report of the international expert workshop on biodiversity mainstreaming "The path we face: advances on mainstreaming biodiversity for well-being";[218]

2. *Also welcomes* the executive summary of the report of the international expert workshop on mainstreaming in the sectors of energy and mining, infrastructure, and manufacturing and processing;[219]

3. *Notes* the importance of reviewing the effectiveness of, and identifying obstacles and challenges to, mainstreaming biodiversity, including, as relevant, the need for capacity-building, technology transfer, mobilization and provision of financial resources, including through existing bilateral, regional and multilateral mechanisms;

4. *Welcomes* the revised typology of actions for reporting on biodiversity and associated guidance prepared by the Executive Secretary;[220]

5. *Recognizes* that, while policies and tools exist to address the conservation and sustainable use of biodiversity, there are still opportunities to mainstream biodiversity in the sectors of energy and mining, infrastructure, manufacturing and processing, including in relation to strategic planning, decision-making and economy-wide and sector-wide policies;

6. *Also recognizes* that opportunities exist for the wider application of biodiversity-inclusive impact assessments and the integration of biodiversity considerations in risk assessments and risk

---

[213] Decision X/2, annex.

[214] See General Assembly resolution 70/1 of 25 September 2015 entitled "Transforming our world: the 2030 Agenda for Sustainable Development".

[215] Secretariat of the Convention on Biological Diversity (2012). *Cities and Biodiversity Outlook*. Montreal, Canada.

[216] General Assembly resolution 71/256, annex.

[217] The Weight of Cities,

[218] CBD/SBI/2/INF/39.

[219] CBD/SBI/2/INF/37.

[220] CBD/SBI/2/4/Add.2.

communication, in particular strategic environmental assessment of policies, plans and programmes and the use of spatial planning at the national and regional levels;

7. *Welcomes* United Nations Environment Assembly resolution 3/2 on pollution mitigation by mainstreaming biodiversity into key sectors;

8. *Also welcomes* the decision by the Conference of the Food and Agriculture Organizations of the United Nations in 2017 that the Food and Agriculture Organization will act as a Biodiversity Mainstreaming Platform for the agricultural sectors and the outcomes of the Multi-stakeholder Dialogue on Mainstreaming Biodiversity across Agricultural Sectors, held by the Food and Agriculture Organization and the Secretariat of the Convention on Biological Diversity from 29 to 31 May 2018;[221]

9. *Welcomes* the resolutions of the twelfth session of the Conference of the Parties to the Convention on Migratory Species of Wild Animals that support mainstreaming of biodiversity into the energy sector,[222] in particular in the development of renewable energy that takes into account environmental impact assessments and monitoring information as it emerges, and the exchange of information provided through wider spatial planning processes, and *also welcomes* the work that has been done by the Convention on Migratory Species and its multi-stakeholder Energy Task Force to advance biodiversity-friendly practices in the energy sector;

10. *Urges* Parties, and invites other Governments, partners and relevant stakeholders to implement past decisions of the Conference of the Parties related to the mainstreaming of biodiversity;

11. *Encourages* Parties, and other Governments and relevant stakeholders, notably public and private entities engaged in the energy and mining, infrastructure, manufacturing and processing sectors, as relevant, in accordance with their national capacities and circumstances, priorities and regulations:

(a) To take note of the trends within the respective sectors regarding their potential impacts and dependencies on biodiversity with a view to identifying opportunities for mainstreaming biodiversity;

(b) To include approaches to conserve, enhance and sustainably use biodiversity and ecosystem functions and services in upstream decisions on investments in these sectors, through such available tools as strategic environmental assessments and integrated spatial planning, including the evaluation of alternatives to such investments;

(c) To apply best practices on environmental impact assessments [223] and biodiversity mainstreaming to decisions, including those of public and private financial institutions, related to the approval of projects and investments in these sectors;

(d) To apply the mitigation hierarchy when planning and designing new projects and plans;

(e) To review and, as appropriate, update legal frameworks, policies and practices to foster the mainstreaming of biodiversity in the sectors of energy and mining, infrastructure, manufacturing and processing, including safeguard measures, such as consultations, monitoring and oversight measures, in order to obtain free, prior and informed consent, with the full and effective participation of the relevant sectors, indigenous peoples and local communities, academia, women, youth, and other relevant stakeholders;

(f) To provide, where appropriate, effective incentives to mainstream biodiversity in the energy and mining, infrastructure, manufacturing and processing sectors, consistent with international obligations,

---

[221] CBD/SBI/2/INF/29.

[222] UNEP/CMS/Resolution 7.05 (Rev. COP 12) "Wind Turbines and Migratory Species", UNEP/CMS/Resolution 7.04 "Electrocution of Migratory Species; UNEP/CMS/Resolution 10.11 "Powerlines and Migratory Species"; and UNEP/CMS 11.27 "Renewable Energy and Migratory Species".

[223] Including the voluntary guidelines on biodiversity-inclusive impact assessment adopted by the Conference of the Parties in its decision VIII/28.

(g) To promote and strengthen best practices on sustainable consumption and production implemented in the energy and mining, infrastructure, manufacturing and processing, and other sectors that favour conservation and sustainable use of biodiversity;

(h) To review and use, as appropriate, existing tools, including policies oriented to business planning, design, supply and value chains, sustainable procurement and consumption and similar policies, to promote biodiversity-related sustainable production and consumption in the energy and mining, infrastructure, and manufacturing and processing sectors, to shift markets towards more sustainable consumption and production and innovation, as well as to continue collaborating, developing and implementing other corporate policies and measures;

(i) To review and, as appropriate, update legal frameworks, policies and practices, to foster the mainstreaming of biodiversity conservation and sustainable use in socio-economic and business policies and planning, including through incentives for best practices in supply chains, sustainable production and consumption and measures at the scale of sites or production plants, reporting by businesses on biodiversity dependencies and impacts, and adopting or updating laws on sustainable procurement, and similar policies to shift markets towards more sustainable products and technologies;

(j) To design and implement, as appropriate, measures to encourage investments by the business and financial sectors to mainstream biodiversity in all sectors, including measures to promote public disclosure of corporate activities related to biodiversity and encourage the financial sector to develop approaches to mainstream the values of biodiversity and ecosystems in financing and investment in accordance with paragraph 9(b)(ii) of decision X/3;

(k) To encourage the application of technology and research and development and innovation regarding mainstreaming in the sectors of energy and mining, infrastructure, and manufacturing and processing;

(l) To evaluate and pursue opportunities to utilize ecosystem-based approaches in the sectors of energy and mining, infrastructure, and manufacturing and processing, where appropriate;

(m) To integrate biodiversity and ecosystems functions and services in the planning and development of cities, including approaches to conserving, enhancing, restoring and sustainably using biodiversity and ecosystem functions and services in spatial planning across cities, landscapes and seascapes;

(n) To work with indigenous peoples and local communities and all relevant stakeholders across the public, private and civil society sectors in order to establish and strengthen coordination mechanisms to facilitate addressing the underlying causes of biodiversity loss and foster biodiversity mainstreaming across all sectors;

(o) To develop government coordination mechanisms, mechanisms for stakeholder inputs and engagement, multi-stakeholder knowledge platforms, and independent governmental audit or evaluation institutions to enhance biodiversity mainstreaming and enhance implementation at the national level;

(p) To establish knowledge platforms to bring together government agencies at different levels, the business sector, indigenous peoples and local communities and stakeholders to address these technical issues with respect to mainstreaming biodiversity, taking into account matters related to environmental stewardship and corporate social responsibility;

(q) To build capacity and foster capacity-building for the effective mainstreaming of biodiversity;

12. *Calls upon* businesses to utilize the revised typology of actions for reporting on biodiversity-related business actions, and associated guidance prepared by the Executive Secretary;

13. *Invites* multilateral development banks, insurance companies, the business sector, financial institutions and other sources of financial investment for these sectors to increase and improve, as

appropriate, the implementation of best practices for conservation and sustainable use of biodiversity, and social and environmental safeguards on decisions regarding investments in these sectors;

14. *Invites* relevant organizations and initiatives to further intensify their work to identify key elements for the design, promotion and implementation of biodiversity mainstreaming by the business and financial sectors, and to enhance mutual information-sharing and collaboration, in particular:

(a) To improve the internalization by businesses of the importance and values of biodiversity as stated in paragraph 11(h) above in the sectors and to facilitate the sharing of experiences and good practices;

(b) To develop and improve metrics, indicators, baselines and other tools to measure the biodiversity dependencies of businesses in these sectors and their impacts on biological diversity, to provide business managers with trusted, credible and actionable information for improved decision-making;

(c) To develop specific guidance on how to strengthen the ecosystem and biodiversity impact and dependency components of business reporting against the 2030 Agenda for Sustainable Development and its Sustainable Development Goals;[214]

(d) To enhance, as appropriate, the linkages between the United Nations System of Environmental-Economic Accounting and the accounting frameworks for biodiversity and ecosystems used by the business and financial sectors;

15. *Decides* to establish a long-term strategic approach for mainstreaming biodiversity;

16. *Also decides* to establish an Informal Advisory Group on Mainstreaming of Biodiversity, to advise the Executive Secretary and the Bureau on further development of the proposal for a long-term approach to mainstreaming biodiversity, with the terms of reference contained in annex II, including on ways to integrate mainstreaming adequately into the post-2020 biodiversity framework, to be submitted to the Subsidiary Body on Implementation for consideration at its third meeting;

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

(a) To undertake activities to support implementation of the present decision and to continue to support efforts related to the mainstreaming of biodiversity as requested in prior decisions of the Conference of the Parties;

(b) To ensure that discussions and inputs with respect to mainstreaming are appropriately integrated in the development of the post-2020 global biodiversity framework, including both technical and policy discussions as well as inputs from various stakeholders and partners;

(c) To work with the Informal Advisory Group and interested Parties to further develop a long-term strategic approach to mainstreaming of biodiversity, based on the proposal contained in annex I hereto and supported by the Informal Advisory Group referred to in paragraph 16 above;

(d) To undertake additional work to facilitate the disclosure and reporting of the impacts of businesses on biodiversity and their dependencies on biodiversity, working in collaboration with relevant organizations and initiatives, including to support the objectives listed in paragraph 14 above;

(e) To undertake additional analysis to examine the role of indigenous peoples and local communities in mainstreaming biodiversity;

(f) To report on progress on the actions above to the Subsidiary Body on Implementation at its third meeting for consideration subsequently by the Conference of the Parties at its fifteenth meeting;

(g) To continue organizing, in collaboration with relevant organizations and stakeholders, in conjunction with other capacity building activities, forums for discussion and exchange of experiences with respect to mainstreaming of biodiversity in key sectors, including on a regional basis;

(h) To develop cooperation and partnerships with the secretariats of relevant multilateral agreements and international organizations as regards the mainstreaming of biodiversity;

Annex I

PROPOSAL FOR A LONG-TERM STRATEGIC APPROACH TO MAINSTREAMING BIODIVERSITY

I. INTRODUCTION

1. Mainstreaming of biodiversity is one of the key approaches for achieving the objectives of the Convention. While numerous actions and decisions have been taken to mainstream biodiversity in key sectors, in particular those considered at the thirteenth and fourteenth meetings of the Conference of the Parties, and in cross-cutting policies, a long-term strategic approach is needed within the post-2020 global biodiversity framework, in order to undertake actions for mainstreaming more effectively within and across sectors and facilitating coordination among sectors.

2. The goal of such an approach should be to establish priorities for action, based on scientific evidence of likely impacts and benefits, as well as identify key actors that need to be engaged in implementing such actions and appropriate mechanisms to do so, focusing in the first instance on implementation of previous decisions of the Conference of the Parties relevant to mainstreaming. It should furthermore facilitate assessment and monitoring of gaps and progress. The long-term approach should be kept under review by the Conference of the Parties and be flexible enough to respond to relevant changes.

3. In order to develop such a strategic approach, the Executive Secretary, with the support of the Informal Advisory Group and the advice of the bureau, will support both technical and policy discussions, as well as inputs from various stakeholders and partners.

I. AREAS FOR DEVELOPMENT OF A LONG-TERM STRATEGIC APPROACH TO MAINSTREAMING BIODIVERSITY

4. A number of actions will be important for developing a long-term approach to mainstreaming biodiversity, including actions by Governments, businesses, partners and stakeholders. Activities at the international, national, local and subnational levels are also needed.

5. The Executive Secretary should:

(a) Identify existing practices, guidelines, methodologies, experiences and tools related to biodiversity mainstreaming, and other strategic actions, in particular within the provisions and decisions of the Convention on Biological Diversity, in planning and decision making in these sectors;

(b) Consider how the existing programmes of the Convention on Biological Diversity, those of relevant partner organizations and initiatives, might better contribute to such a long-term strategic approach with respect to capacity-building, among other things, and identification of existing gaps in areas of work that are important for mainstreaming of biodiversity;

(c) Continue to engage in key international processes, including the 2030 Agenda for Sustainable Development.

6. The Executive Secretary, taking into account paragraph 5 above, advised by the Informal Advisory Group on mainstreaming of biodiversity, and the Bureau, should also shape such long term strategic approach to mainstreaming on biodiversity, as a key element of the post-2020 biodiversity framework, which would include the following areas and actions, among others:

(a) Review the effectiveness of different mainstreaming practices that have been used, and steps needed to scale up their use, including in education, national legislation and policies, among other strategic tools;

(b) Undertake research and analysis on the extent to which mainstreaming approaches are being used by Parties, and identification of major gaps, obstacles and challenges;

(c) Contribute to efforts with respect to the internalization of the importance and the values of biodiversity and ecosystem functions and services, in accordance with paragraph 9(b)(ii) of decision X/3;

(d) Contribute to the efforts to develop and apply science-based indicators with respect to mainstreaming approaches;

(e) Identifying capacity-building and training needs for mainstreaming biodiversity at the regional and subregional levels;

(f) Identify opportunities to facilitate technical and scientific cooperation on mainstreaming, financial support and technology transfer;

(g) Identify opportunities to develop new partnerships and strengthening of existing partnerships to achieve further progress in mainstreaming of biodiversity;

(h) Identify possible mechanisms to monitor the implementation of actions to advance the mainstreaming of biodiversity at the national level;

(i) Design a strategy to foster the engagement of the business and finance sectors on mainstreaming of biodiversity;

(j) Identifying cost-effective practices, guidelines, methodologies, experiences and tools related to biodiversity mainstreaming, and other strategic actions, in order to enhance the implementation of the Convention;

(k) Identifying obstacles that hinder mainstreaming of biodiversity in regulations, processes, policies and programmes at the national level;

(l) Identifying options and solutions to overcome these obstacles to mainstreaming of biodiversity;

(m) Identifying key tasks as well as challenges and gaps in addressing these actions;

(n) Suggesting priority actions, timeframes and relevant actors;

(o) Identifying areas where additional work might be desirable in order to achieve further progress on mainstreaming under the Convention;

(p) Providing any other relevant advice, including on other initiatives or developments, meetings and other opportunities, to help further this work.

Annex II

TERMS OF REFERENCE FOR THE INFORMAL ADVISORY GROUP ON MAINSTREAMING OF BIODIVERSITY

1. The Informal Advisory Group on Mainstreaming of Biodiversity will be composed of experts competent in fields relevant to the mainstreaming of biodiversity, nominated by Parties, with due regard to regional representation, gender balance and the special conditions of developing countries, in particular the least developed countries and small island developing States, and countries with economies in transition, as well as experts from public and private sectors, including civil society, academia, and business leaders, as well as indigenous peoples and local communities and relevant organizations, including relevant international organizations, non-governmental organizations and industry associations. The number of experts from organizations shall not exceed the number of experts nominated by Parties.

2. Taking into account decisions of the Conference of the Parties on sectoral and cross-sectoral mainstreaming of biodiversity, as well as the work of other relevant international processes and organizations, including the 2030 Agenda for Sustainable Development, the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme, the United Nations Environment Programme, the United Nations Industrial Development Organization, the World Trade Organization, the World Bank, the United Nations Conference on Trade and Development and the International Labour Organization, among others, and making use of available information, including that of the clearing-house mechanism of the Convention, the Informal Advisory Group shall provide the Executive Secretary and the Bureau with advice in the development of a long-term strategic approach to mainstreaming of biodiversity. The Informal Advisory Group and the Bureau will provide advice on all aspects of the long-term strategic approach.

3. The Executive Secretary will support the work of the Informal Advisory Group.

Modus operandi

4. The Informal Advisory Group will meet, to the extent practicable, through virtual means, including videoconferencing. Physical meetings will take place at least once a year, subject to the availability of resources.

Initiation and review of work

5. The work of the Informal Advisory Group should be initiated immediately after approval of the terms of reference by the Conference of the Parties at its fourteenth meeting.

6. The mandate and composition of the Informal Advisory Group will be reviewed by the Subsidiary Body on Implementation at its third meeting after consideration of a progress report submitted by the Executive Secretary.

Item 23. Conservation and sustainable use of pollinators

The following is taken from recommendation 22/9 of the Subsidiary Body on Scientific, Technical and Technological Advice

The Conference of the Parties,

Recalling decision III/11, annex III, decision V/5, decision VI/5, and decision XIII/15,

Noting the importance of pollinators and pollination for all ecosystems, including those beyond agricultural and food production systems, particularly to the livelihoods and culture of indigenous peoples and local communities, and *recognizing* the important contribution of activities to promote the conservation and sustainable use of pollinators and pollination functions and services in achieving the Aichi Biodiversity Targets as well as the Sustainable Development Goals,

Recognizing that activities to promote the conservation and sustainable use of pollinators and pollination functions and services are key elements in the transition towards the achievement of more sustainable food systems by fostering the adoption of more sustainable practices among agricultural sectors and across sectors,

1. *Adopts* the Plan of Action 2018-2030 for the International Initiative for the Conservation and Sustainable Use of Pollinators as contained in annex I to the present decision, for implementation according to national circumstances;

2. *[Welcomes/Takes notes* of][224] the summary of information on the relevance of pollinators and pollination to the conservation and sustainable use of biodiversity in all ecosystems beyond their role in agriculture and food production contained in annex II to the present decision;

3. *Encourages* Parties, other Governments and relevant organizations and networks to support and implement relevant activities of the International Initiative on the Conservation and Sustainable Use of Pollinators through, among other things, the integration of appropriate measures into the implementation of national biodiversity strategies and action plans, as well as subnational and local biodiversity strategies and actions plans, as appropriate, and relevant policies, legislation, and programmes;

4. *Urges* Parties and *invites* other Governments to address the drivers of wild and managed pollinator decline in all ecosystems, including the most vulnerable biomes and agricultural systems, and, as identified in annex II to the present decision, paying especially close attention at both the local and regional scales to the risk of introducing invasive alien species (plants, pollinators, predators, pests and pathogens) that are harmful to pollinators and to the plant resources on which they depend, and to avoiding or reversing land degradation and to restoring lost pollinator habitats, in addition to addressing the drivers identified in decision XIII/15;

5. *Encourages* Parties and *invites* other Governments to integrate the conservation and sustainable use of wild and managed pollinators and their habitats into land management and protected areas and other effective area-based conservation policies;

[224] Pending finalization of the draft full report on the relevance of pollinators and pollination to the conservation and sustainable use of biodiversity in all ecosystems beyond their role in agriculture and food production, in line with paragraph 3 of recommendation 22/9 of the Subsidiary Body on Scientific, Technical and Technological Advice.

6. *Encourages* Parties and *invites* other Governments:

(a) To encourage the private sector to take into consideration the activities listed in the Plan of Action and to work towards the achievement of more sustainable production and consumption systems;

(b) To encourage academic and research bodies, and relevant national, regional and international organizations and networks, to conduct further research to address gaps[225] identified in the Plan of Action and to synthesize and communicate information through appropriate channels to support implementation;

(c) To encourage farmers, beekeepers, land managers, urban communities, indigenous people and local communities and other stakeholders to adopt pollinator-friendly practices and address direct and indirect drivers of pollinator decline at the field and local level;

(d) To develop and deploy monitoring of wild and managed pollinators in order to assess the magnitude of the decline and to evaluate the impact of deployed mitigation actions;

7. *Encourages* the Global Environment Facility and other donors and funding agencies to provide financial assistance for national and regional projects that address the implementation of the Plan of Action for the sustainable use and conservation of pollinators;

8. *Requests* the Executive Secretary to bring the present recommendation to the attention of the Food and Agriculture Organization of the United Nations and its Committee on Forestry, the Committee on Agriculture, the Commission on Genetic Resources for Food and Agriculture, the Committee on World Food Security, and the Secretariats of the International Plant Protection Convention and the International Treaty on Plant Genetic Resources for Food and Agriculture as well as the Secretariat of the Basel, Rotterdam and Stockholm Conventions;

9. *Invites* the Food and Agriculture Organization of the United Nations to facilitate the implementation of the Plan of Action, following the successful approach of the previous plan involving ministries of agriculture and environment at the national level;

10. *Also requests* the Executive Secretary, subject to the availability of resources, and in collaboration with the Food and Agriculture Organization of the United Nations, the Secretariat of the Basel, Rotterdam and Stockholm Conventions and other relevant stakeholders, to develop guidelines and best practices in relevant areas, determined in accordance with the level of priority for the implementation of the Plan of Action, such as, among others, the use of chemicals in agriculture, protection programmes for native pollinators in natural ecosystems, promotion of biodiverse production systems, crop rotation, monitoring of native pollinators, and environmental education;

11. *Requests* the Executive Secretary to consider the conservation and sustainable use of wild and managed pollinators in preparations for the post 2020-global biodiversity framework;

12. *Invites* Parties, other Governments, research institutions and organizations that are in a position to do so to support countries that need (a) to increase taxonomic capacity in order to improve knowledge about pollinators, their status and trends, (b) to identify drivers of change in their populations, and (c) to develop appropriate solutions to enable effective adoption and implementation of the proposed action plan.

Annex I

UPDATED PLAN OF ACTION 2018-2030 FOR THE INTERNATIONAL INITIATIVE ON THE CONSERVATION AND SUSTAINABLE USE OF POLLINATORS

INTRODUCTION

1. At its third meeting, in 1996, the Conference of the Parties to the Convention on Biological Diversity recognized the importance of pollinators, and the need to address the causes of their decline (decision III/11). By

[225] Gaps identified in the Element 4 of the Plan of Action 2018-2030 presented in annex I.

decision V/5, the Conference of the Parties decided to establish an International Initiative for the Conservation and Sustainable Use of Pollinators as a cross-cutting initiative within the programme of work on agricultural biodiversity to promote coordinated action worldwide and, subsequently, by decision VI/5, adopted a plan of action. The Food and Agriculture Organization of the United Nations (FAO) has been leading and facilitating the implementation of the Plan of Action.

2. The present Plan of Action has been prepared jointly by FAO and the Secretariat of the Convention on Biological Diversity, in consultation with other partners and relevant experts, pursuant to decision XIII/15 (para. 10).

I. OBJECTIVES, PURPOSE AND SCOPE

3. The overall objective of this Plan of Action is to promote coordinated action worldwide to safeguard wild and managed pollinators and promote the sustainable use of pollination functions and services, which is a recognized vital ecosystem service for agriculture and for the functioning and health of ecosystems.

4. The purpose of this Plan of Action is to help Parties, other Governments, indigenous peoples and local communities, relevant organizations and initiatives to implement decision XIII/15, in alignment with the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets and the 2050 Vision for Biodiversity, the FAO Strategic Framework 2010-2019, and relevant successor frameworks, and the 2030 Agenda for Sustainable Development, including the Sustainable Development Goals.

5. The operational objectives of this Plan of Action are to support Parties, other Governments, indigenous peoples and local communities, relevant organizations and initiatives:

(a) In implementing coherent and comprehensive policies for the conservation and sustainable use of pollinators at the local, subnational, national, regional and global levels, and promoting their integration into sectoral and cross-sectoral plans, programmes and strategies;

(b) In reinforcing and implementing management practices that maintain healthy pollinator communities, and enable farmers, beekeepers, foresters, land managers and urban communities to harness the benefits of pollination for their productivity and livelihoods;

(c) In promoting education and awareness in the public and private sectors of the multiple values of pollinators and their habitats, in improving the tools for decision-making, and in providing practical actions to reduce and prevent pollinator decline;

(d) In monitoring and assessing the status and trends of pollinators, pollination and their habitats in all regions and to address gaps in knowledge, including by fostering relevant research.

6. The Plan of Action is aimed at facilitating the implementation of actions to safeguard and promote pollinators and pollination functions and services across agricultural landscapes and related ecosystems, including forests, grasslands, croplands, wetlands, savannas, coastal areas and urban environments. The activities can be applied at the regional, national, subnational and local levels.

II. CONTEXT AND OVERALL RATIONALE

7. Animal-mediated pollination is a regulating ecosystem service of vital importance for nature, agriculture, and human well-being. This service is provided by pollinators, namely by managed bees, wild bees, and other insects, such as flies, butterflies and beetles, as well as vertebrates, such as bats, birds and some primates. The assessment report on pollinators, pollination, and food production published by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)[226] underscores the role of pollinators in multiple respects. Nearly 90 per cent of the world's wild flowering plant species depend, entirely or at least in part, on animal pollination. These plants are essential for the functioning of ecosystems by providing other species with food, habitats and other resources. In addition, some self-pollinating crops, such as soybean, can also benefit from enhanced productivity by animal pollinators.

8. Strong declines of some pollinator taxa over the last few decades have been observed, although data on the status and trends of wild pollinators is limited, and largely restricted to some regions of Europe and the Americas. Risk assessments of the status of wild insect pollinators, such as wild bees and butterflies, are similarly geographically restricted but indicate high threat levels, with proportions of threatened species often exceeding 40 per cent.

[226] IPBES (2016). *Assessment Report on Pollinators, Pollination and Food Production*.

9. At the same time, as global agriculture has become increasingly pollinator-dependent, much of this dependence is linked to wild pollinators.[227] Beyond marketable products and health benefits stemming from diverse and nutritious diets enabled by pollination, pollinators provide non-monetary benefits for human well-being as sources of inspiration for arts and crafts, religion, traditions or recreational activities.

10. Many of the main direct drivers of pollinator loss have remained the same as originally identified by the Convention on Biological Diversity in its first decision on pollinators:[228] habitat fragmentation and land use change, agricultural and industrial chemicals, parasites and diseases, and invasive alien species. In addition, the importance of other direct drivers, such as climate change, has emerged, and greater attention has been focused on drivers linked to intensive agricultural practices, such as monoculture, use of pesticides, and some [living modified organisms], with increased evidence of both lethal and sublethal effects of pesticides on bees, and the understanding that the combination of different drivers can increase the overall pressure on pollinators.

11. In the broader context, pollinators can be considered an important link for agriculture, forestry, biodiversity, health, food security, food safety and nutrition. Pollinator-friendly measures have the potential to increase productivity and sustainability and contribute to the long-term viability and profitability of food production systems. Their wider use could be a transformative agent by fostering sustainable practices among agricultural sectors.

12. The first phase of the International Pollinators Initiative (2000-2017) facilitated the identification of main threats and the causes of pollinator decline, as well as the impacts of pollination functions and services and reductions on food production. In addition, taxonomic information on pollinators, the assessment of their economic value in various countries and crops were important steps not only to reinforce research and monitoring, but also to promote the conservation, restoration and sustainable use of pollinators. A number of relevant tools were developed, and many studies were carried out, including the IPBES assessment and complementary studies.

13. The essential role of pollinators in food production, and the importance of their diversity and abundance in agricultural landscapes and related ecosystems are now well recognized. The updated Plan of Action builds on the first phase, and taking into account decision XIII/15, orients the emphasis towards mainstreaming pollination concerns into policy, developing and implementing measures on the ground to support the conservation and sustainable use of pollinators, addressing risks, building capacity and sharing knowledge on multiple levels to integrate pollination considerations into farming, land use and other management decisions, and focusing collaborative research on emerging issues and prevailing needs.

III. ELEMENTS

Element 1: Enabling policies and strategies

Operational objective

To support the implementation of coherent and comprehensive policies for the conservation and sustainable use of pollinators at the local, subnational, national, regional and global levels, and to promote their integration into sectoral and cross-sectoral plans, programmes and strategies.

Rationale

Appropriate national policies are needed in order to provide an effective enabling environment to support activities by farmers, land managers, beekeepers, the private sector and civil society. Pollination concerns are often a cross-cutting issue, and policies should be designed to integrate pollinator and pollination considerations not only into the context of sustainable agricultural transitions, but also across sectors (for example forestry and health).

Activities

A1.1 Develop and implement coherent and comprehensive policies that enable and foster activities to safeguard and promote wild and managed pollinators, to be integrated into the broader policy agendas for sustainable development

A.1.1.1 Promote coherent policies across sectors and cross-cutting issues (e.g. biodiversity, food security, chemicals and pollution, poverty reduction, climate change, disaster risk reduction and combat desertification);

A.1.1.2 Address linkages between pollinators and human health, nutritious diets and pesticide exposure;

[227] Ibid.

[228] Decision VI/5 on agricultural biological diversity, annex II.

A.1.1.3 Address linkages between pollinators and the provision of ecosystem functions and services, beyond food production;

A.1.1.4 Recognize pollinators and pollination as part of holistic farming systems and as an important agricultural input;

A.1.1.5 Recognize pollinators and pollination as an essential part of the of ecosystem integrity and its maintenance;

A.1.1.6 Apply nature-based solutions and reinforce positive interactions (e.g. integrated pest management, on-farm diversification, ecological intensification, restoration to increase landscape connectivity);

A.1.1.7 Support access to data and use of decision support tools, including land use planning and zoning, to enhance the extent and connectivity of pollinator habitats[229] in the landscape, with the participation of farmers and local communities;

A.1.1.8 Support the development of capacity to provide guidance on pollinator and pollination best management practices by supporting the incorporation of nature-based solutions into extension services, farmer-to-farmer sharing, and farmer researcher networks;

A.1.1.9 Develop and implement incentives, consistent and in harmony with international obligations, for farmers and food suppliers to encourage the adoption of pollinator-friendly practices (e.g. carbon sequestration measures that increase pollinator habitats; conservation of uncultivated areas for pollinator forage) and remove or reduce perverse incentives that are harmful to pollinators and their habitats (e.g. pesticides subsidies; incentives for pesticide use as credit requirements from banks), taking into consideration the needs of farmers, urban and rural beekeepers, land managers, indigenous people and local communities and other stakeholders;

A.1.1.10 Promote recognition of pollinator-friendly practices and consequences on pollination functions and services in existing certification schemes;

A.1.1.11 Protect and conserve the threatened pollinator species as well as their natural environment.

A1.2 Implement effective pesticide regulation[230]

A.1.2.1 Reduce the use of and gradually phase out existing pesticides, including cosmetic pesticides and agricultural chemicals, that are harmful to or that present an unacceptable risk to pollinators, and avoid the registration of those that are harmful or present an unacceptable risk to pollinators;

A.1.2.2 Develop, enhance and implement on a regular basis risk assessment procedures (considering field-realistic exposures and longer-term effects) for pesticides, pesticide-coated seeds and [living modified organisms] to take into account possible impacts and cumulative effects, including sublethal and indirect effects, on wild and managed pollinators (including eggs, larva, pupa and adult stages), as well as other non-target species;

A.1.2.3 Work with regulators to implement tools such as the FAO Pesticide Registration Toolkit;

A.1.2.4 Strengthen pesticide regulation authorities in their capacity to protect pollinators from chemicals;

A.1.2.5 Develop and promote guidance and training on best practices for pesticide use (e.g. techniques, technology, timing, non-flowering crops, weather conditions) based on the International Code of Conduct on Pesticide Management of FAO and the World Health Organization;

A.1.2.6 Develop and implement national and regional pesticide risk reduction strategies and promote alternative approaches (e.g. integrated pest management practices and biocontrol) to reduce or eliminate exposure of pollinators to harmful pesticides.

A.1.2.7 Develop and implement, as appropriate, national monitoring, surveillance and registration programmes for pesticides and their transformation products.

A1.3 Protect and promote indigenous and traditional knowledge

[229] Pollinator habitats: areas that provide forage, nesting sites and other conditions for the completion of the life cycles of different pollinator species.

[230] Taking note of the IUCN CEM/SSC Task Force on Systemic Pesticides publication “An update of the Worldwide Integrated Assessment (WIA) on systemic insecticides”.

A.1.3.1 Protect and promote indigenous and traditional knowledge, innovations and practices related to pollinators and pollination (e.g. hive design; stewardship of pollinator resources; traditional ways of understanding of parasite impacts) and support participatory approaches to the identification of diagnostic characteristics for new species and monitoring;

A.1.3.2 Protect established land rights and tenure for the conservation and sustainable use of pollinators.

A1.4 Control the trade and movement of managed pollinators, and other trade-related impacts

A.1.4.1 Monitor the movement and trade of managed pollinator species, sub-species and breeds among countries and within countries;

A.1.4.2 Develop and promote mechanisms to limit the spread of parasites and pathogens to managed and wild pollinator populations;

A.1.4.3 Prevent and minimize the risk of introducing invasive alien species (plants, pollinators, predators, pests and pathogens) that present an unacceptable risk to pollinators and to plant resources on which they depend, and monitor the dispersion risk of those already introduced (for example, *Bombus terrestris*).

Element 2: Field-level implementation

Operational objective

To reinforce and implement management practices that maintain healthy pollinator communities, and enable farmers, beekeepers, foresters, land managers and urban communities to harness the benefits of pollination functions and services for their productivity and livelihoods.

Rationale

In order to secure pollinator-friendly habitats and promote sustainable agroecosystems and pollinator husbandry, the direct and indirect drivers of pollinator decline need to be addressed in the field. Attention is needed at the farm level and across entire ecosystems. Landscape-level measures address connectivity and the value of managing across landscapes and sectors. Improved management measures for pollinators include attention to bee husbandry for honey bees and other pollinators.

Activities

A2.1 Co-design (with farmers, urban and rural beekeepers, land managers and indigenous peoples and local communities) and implement pollinator-friendly practices in farms and grasslands and in urban areas

A.2.1.1 Create uncultivated patches of vegetation and enhance floral diversity using mainly native species, as appropriate, and extended flowering periods, to ensure diverse, abundant and continuous floral resources for pollinators;

A.2.1.2 Manage blooming of mass-flowering crops to benefit pollinators;

A.2.1.3 Foster networks for exchanges of native seeds;

A.2.1.4 Promote genetic diversity and its conservation within populations of managed pollinators;

A.2.1.5 Promote extension services, farmer-to-farmer sharing approaches and farmer field schools to exchange knowledge and provide hands-on education and empowerment of local farming communities;

A.2.1.6 Diversify farming systems and the resulting food resources and habitats of pollinators through home gardens and agroecological approaches, such as crop rotations, intercropping, agroforestry, integrated pest management, organic agriculture, and ecological intensification;

A.2.1.7 Promote awareness, training and adoption of best practices for integrated pest management (for example, including weed management strategies and biocontrol) and, if necessary, pesticide usage in the context of on-farm pollinator management (for example, pesticide application timing, weather conditions, equipment calibration in order to reduce spray drift to off-field areas), and to avoid or minimize any synergistic effects of pesticides with other drivers that have been proven to pose serious or irreversible harm to pollinators;

A.2.1.8 Promote best practices for climate-resilient agriculture with benefits for pollinators;

A.2.1.9 Incorporate pollinator-friendly practices in existing practices in the relevant sectors, including agriculture and food production certification schemes.

A2.2 Address pollinator-friendly management and pollinator needs in forestry

A.2.2.1 Avoid or minimize deforestation, harmful forest management practices and other threats that impact negatively on wild pollinators and on traditional bee keeping;

A.2.2.2 Provide and promote measures to capture, safeguard and transport beehives found inside wooden logs;

A.2.2.3 Promote agroforestry and forestry systems to ensure heterogeneous habitats formed by native species, which offer diversified floral and nesting resources for pollinators;

A.2.2.4 Include considerations regarding pollinators in the rules for sustainable forest management certification systems.

A2.3 Promote connectivity, conservation, management and restoration of pollinator habitats

A.2.3.1 Preserve or restore pollinators and habitats distributed in natural areas, including forests, grasslands and agricultural lands, urban areas and natural corridors, to enhance the availability of floral resources and nesting sites over time and space;

A.2.3.2 Identify priority areas and measures, on the global, regional, national and local levels for the conservation of rare and endangered pollinator species;

A.2.3.3 Foster the establishment and pollinator-friendly management of nature protection areas and semi-natural areas, as well as other in-site options, such as the FAO Globally Important Agricultural Heritage Systems;

A.2.3.4 Promote initiatives in urban areas and service land along roads and railways to create and maintain green areas and vacant lands that offer floral and nesting resources to pollinators, and improve the relationship between people and pollinators by raising public awareness of the importance of pollinators for their daily lives;

A.2.3.5 Manage the use of fire and fire control measures to reduce the negative impacts of fires on pollinators and relevant ecosystems.

A2.4 Promote sustainable beekeeping and bee health

A.2.4.1 Reduce the dependence of managed pollinators on nectar and pollen substitutes by promoting better availability and husbandry of floral resources, therefore improving pollinator nutrition and immunity to pests and diseases;

A.2.4.2 Minimize the risks of infections and spread of pathogens, diseases and invasive alien species and minimize the stress on managed pollinators associated with the transportation of bee hives;

A.2.4.3 Regulate markets for managed pollinators;

A.2.4.4 Develop measures to conserve genetic diversity in managed pollinators;

A.2.4.5 Promote local and traditional knowledge related to innovative practices in management of honeybees, stingless bees and other managed pollinators.

Element 3: Civil society and private sector engagement

Operational objective

To promote education and awareness in the public and private sectors of the multiple values of pollinators and their habitats, improve the tools for decision-making, and implement practical actions to reduce and prevent pollinator decline.

Rationale

Global agriculture has become increasingly pollinator-dependent, and much of this dependence is linked to wild pollinators. The general public and the private sector, including the food and cosmetics industries and supply chain managers, are increasingly showing an interest in protecting pollinators. Building on this, targeted actions on conservation of pollinators and their habitats need to be elaborated for civil society and for the private sector. Greater understanding of the vulnerability to pollination services losses and the value of these functions and services will help to drive such initiatives.

Activities

A3.1 General public awareness-raising

A.3.1.1 Engage in awareness raising with targeted key stakeholder groups, including farmers, extension workers, beekeepers, non-governmental organizations, schools, the mass media, and consumer organizations on the value of pollinators and pollination for health, wellbeing and livelihoods;

A.3.1.2 Raise the awareness of the private sector, including food companies, cosmetics manufacturers and supply chain managers, of the risks posed by the decline of pollination functions and services to their business and the value of protecting pollinators;

A.3.1.3 Promote use of technology and build taxonomic capacity for the general public, including farmers and beekeepers, to identify and differentiate pollinators from pests, eventually contributing to data collection on pollinators;

A.3.1.4 Support campaigns and activities to engage stakeholders in the conservation and sustainable use of pollinators, including celebrations on 20 May of World Bee Day, which was established by the United Nations General Assembly.[231]

A3.2 General public actions

A.3.2.1 Promote educational activities with children and students on the importance of pollinators and ecosystem functions and services in their daily lives and propose ways to contribute to the protection of pollinators;

A.3.2.2 Integrate pollinators and ecosystem functions and services subjects into the curriculum of agriculture, environment and economics courses;

A.3.2.3 Support citizen science projects for generating data on pollinators and pollination and raising appreciation among civil society organizations for the role of pollinators;

A.3.2.4 Encourage network-building activities, including through conferences,[232] dissemination of information on pollinators and pollination through public databases, web portals, social media and information networks that facilitate access to all relevant stakeholders.

A3.3 Business and supply chain engagement

A.3.3.1 Provide decision-making tools to assist different stakeholders in assigning values to pollinators and pollination, including non-monetary values;

A.3.3.2 Develop modalities to incorporate pollinators and pollination in true cost accounting of agriculture and food production;

A.3.3.3 Improve understanding within the private sector of the links between commercial products and the dependency of commodities (crop yields and quality) on respective type of pollinators;

A.3.3.4 Share evidence of pollination deficit and the economic impacts, and impacts on livelihoods, to support business in identifying potential risks, developing vulnerability assessments, and adopting pollinator-friendly measures;

A.3.3.5 Develop and share pollinator-friendly business cases for action;

A.3.3.6 Promote the use of ecolabels, standards and the importance of choices for consumers that may benefit pollinators.

Element 4: Monitoring, research and assessment

Operational objective

To monitor and assess the status and trends of pollinators, pollination and their habitats in all regions and to address gaps in knowledge, including by fostering relevant research.

[231] See General Assembly resolution 72/238 of 20 December 2017 on agriculture development, food security and nutrition.

[232] For example, a regular conference for the initiative (possibly linked to the International Federation of Beekeepers Associations (http://www.apimondia.com/)).

Rationale

Monitoring and assessment of the status and trends of pollinators and pollination functions and services, of measures for the conservation and sustainable use of pollinators, and of the outcomes of such measures, is necessary to inform adaptive management. Academic and research bodies, and relevant international organizations and networks should be encouraged to undertake further research, taking into consideration traditional knowledge, to address gaps in knowledge and to expand research to cover a wider variety of pollinators and to support coordinated global, regional, national, subnational and local monitoring efforts and build relevant capacity, especially in developing countries, where there have been fewer research and monitoring efforts to date.

Activities

A4.1 Monitoring

A.4.1.1 Monitor the status and trends of pollinators, with particular focus on those regions currently lacking data;

A.4.1.2 Quantify pollination deficits in crops and in the natural ecosystems, with particular focus on those regions and farming systems currently lacking data, where feasible, and apply consistent and comparable protocols to identify the most effective intervention measures;

A.4.1.3 Monitor the drivers and threats to pollinators in tandem with their status and trends in order to identify the likely causes of pollinator declines;

A.4.1.4 Monitor the effectiveness of interventions in protecting pollinators and managing pollination functions and services;

A.4.1.5 Support the use of technology and the development of user-friendly tools, such as mobile apps, to promote pollinators monitoring through citizen science;

A.4.1.6 Promote the use of pollinators and pollination as indicators for the status of biodiversity, ecosystem health, agriculture productivity and sustainable development;

A.4.1.7 Promote the development of methodologies for systematic monitoring of pollinators in natural ecosystems, especially in protected areas or sites of importance for conservation and productive ecosystems in such a way as to facilitate the development of detailed visual maps at the local level and then subsequent decision-making.

A4.2 Research

A.4.2.1 Promote research on non-bee taxa and other wild species of pollinators in natural ecosystems and the ecosystem functions and services provided by them in order to design appropriate management policies and protection measures;

A.4.2.2 Undertake research, including participatory research, on the socioeconomic as well as environmental implications of pollinator decline in the agricultural sector and related businesses;

A.4.2.3 Facilitate the harmonization of protocols for research, data collection, management and analysis, storage and curation of pollinator samples, including modalities for collaborative research;

A.4.2.4 Promote and share further research to address gaps in knowledge, including the effects of partial loss of pollinators on crop production, the potential impacts of pesticides considering their possible cumulative effects, and of living modified organisms, under field conditions, including differential impacts on managed and wild pollinators, and on social versus solitary pollinators, and the impacts on pollination of crop and non-crop plants over the short and long term, and under different climatic conditions, as well as the impact of pollinator loss, on ecosystem integrity and its maintenance;

A.4.2.5 Promote further research to identify ways to integrate pollinator-friendly practices into farming systems as part of efforts to improve yield quantity and quality and mainstreaming of biodiversity into agricultural systems;

A.4.2.6 Promote further research to identify risks to pollination under climate change and potential adaption measures and mitigation tools, including the potential loss of keystone species and their habitats, as well as the role of pollination in wider ecosystem resilience and restoration;

A.4.2.7 Promote further research and analysis on pest management as it interacts with pollination functions and services, taking into account the impact of drivers of pollinator decline, to support the development of more feasible and sustainable alternatives;

A.4.2.8 Promote further research and analysis to identify ways to integrate the provision of ecosystem functions and services and pollinator conservation, beyond food production;

A.4.2.9 Translate pollinator research and findings into recommendations and best practices tailored for a wide range of stakeholder groups;

A.4.2.10 Strengthen the synergies between scientific evidence, conservation practices and farmer-researcher community practices, and traditional knowledge to better support actions.

A4.3 Assessment

A.4.3.1 Generate data sets through a permanent pollinator monitoring process that allows the creation of regional/national/subnational and local visual maps to indicate the status and trends of pollinators and pollination and crop-specific vulnerability to support decision-making;

A.4.3.2 Assess the benefits of pollinators and pollination, taking into account the economic and other values to agriculture and the private sector, including food companies, cosmetics manufacturers and supply chains;

A.4.3.3 Assess the benefits of pollinator-friendly practices, including the conservation of uncultivated areas of farmlands, and propose alternatives to deforestation;

A.4.3.4 Increase understanding of the consequences of pollinator decline in specific crops, agroecosystems and natural environments;

A.4.3.5 Support the identification of pollinators in natural and managed areas, such as forestry and agricultural systems, as well as the interactions between pollinators and plants, and the impacts of anthropogenic activities in ecosystems;

A.4.3.6 Address taxonomic assessment needs in different regions and design targeted strategies to fill the existing gaps;

A.4.3.7 Increase taxonomic capacity to improve knowledge about pollinators, their status and trends, identify drivers of changes in their populations, and develop appropriate solutions;

A.4.3.8 Promote regular assessments of the conservation status of pollinator species from different taxonomic groups, update national, regional and global red data books and red lists regularly and elaborate plans of action for the conservation and restoration of threatened pollinator species.

Actors

This Plan of Action is addressed to all relevant stakeholders, including Parties to the Rio Conventions and other multilateral environmental agreements, national, subnational and municipal governments, donor agencies, including the Global Environment Facility, the World Bank and regional and national development banks and banks with a significant portfolio of loans for rural development, private and corporate donors, as well as other relevant bodies and organizations, land owners and land managers, farmers, beekeepers, indigenous peoples and local communities, the private sector and civil society.

FAO will facilitate the implementation of the Plan of Action, following the successful approach of the previous plan. This new phase is also intended to align the activities on pollination and pollinators more closely with FAO regional and country offices in order to create synergies and provide broader support. The full implementation of the second phase of the Plan of Action at the national and regional levels will depend on the availability of resources.

IV. SUPPORTING GUIDANCE AND TOOLS

A list of supporting guidance and tools is provided in an information note (CBD/SBSTTA/22/INF/20).

Annex II

SUMMARY - REVIEW OF THE RELEVANCE OF POLLINATORS AND POLLINATION TO THE CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY IN ALL ECOSYSTEMS, BEYOND THEIR ROLE IN AGRICULTURE AND FOOD PRODUCTION

A. Introduction

1. The full report[233] and the present summary have been prepared pursuant to decision XIII/15. The report draws on the contributions of many researchers and partners around the world.[234]

B. Roles and values of pollinators and pollinator dependent plants beyond agriculture

2. There is a wide diversity of values linked to pollinators and pollination beyond agriculture and food production, which includes ecological, cultural, financial, health, human and social values.

3 Pollinators enhance the reproduction and genetic diversity of the great majority (c. 87.5%). of plant species. About half of plant species are completely dependent on animal-mediated pollination. Animal-mediated pollination usually leads to some degree of cross-pollination and thus promotes and maintains genetic variation in populations, which, in turn, allows plant species to adapt to new and changing environments. Cross-pollination also results in higher seed production. By ensuring a supply of seed propagules and promoting genetic variation, pollinators are considered to be of fundamental importance for the maintenance of plant diversity and ecosystem functioning.

4. Plants and pollinators are critical for the continued functioning of ecosystems, contributing to climate regulation, provision of wild meat, fruits and seeds that support many other species, regulation of malaria and other diseases, among other functions and services. Tropical forests, which contain a high proportion of dioecious species, are particularly dependent on pollination. Another example is mangroves, dominated by obligate outbreeder plants, which provide important functions and services, such as preventing coastal erosion, protecting from flood and salt intrusion, providing wood fuel and timber, and supporting fisheries, as well as habitat and food provision for bees and many other species.

5. The mutualisms between plants and their floral visitors sustain not only plant diversity but also the diversity of an estimated 350,000 animal species. While there is strong evidence of local extirpation of pollinator populations due to a lack of floral resources, there is no report on animal species extinction due to a lack of floral resources. However, given the extent of habitat fragmentation, the large number of plant species that have become extinct or nearly so in the past 100 years and the paucity of knowledge about host plant usage by flower-visiting animals, the possibility that this is occurring without being documented is very real. Data on population changes in wild flower-visiting animals are notoriously difficult to obtain and the causes of these changes even more difficult to establish.

6. Pollinators, pollinator habitats and pollinator products are sources of inspiration for art, education, literature, music, religion, traditions and technology. Honey-hunting and beekeeping practices based on indigenous and traditional knowledge have been documented in more than 50 countries. Bees have inspired imagery and texts in religions all over the world, and other pollinators, such as hummingbirds, contribute to the national identity of such countries as Jamaica and Singapore. Pollinators and pollinator-dependent plants support advances in technology and knowledge through inspiration and application of their biology to human innovations, such as the visually guided flight of robots.

7. Bee products contribute to the income of beekeepers around the globe. Beekeeping can potentially be an effective tool for reducing poverty, empowering youth and creating opportunities to the conservation of biodiversity by adopting bee-friendly actions.

8. There is a range of economically important plants outside crops that depend on animal pollinators, which include several medicinal plant species. Other pollinator-dependent plants can provide valuable functions and

---

[233] *The relevance of pollinators and pollination to the conservation and sustainable use of biodiversity in all ecosystems beyond their role in agriculture and food production*, (CBD/COP/14/INF/8).

[234] The main authors of the report are Marcelo Aizen, Pathiba Basu, Damayanti Buchori, Lynn Dicks, Vera Lucia Imperatriz Fonseca, Leonardo Galetto, Lucas Garibaldi, Brad Howlett, Stephen Johnson, Monica Kobayashi, Michael Lattorff, Phil Lyver, Hien Ngo, Simon Potts, Deepa Senapathi, Colleen Seymour and Adam Vanbergen. The report was edited by Barbara Gemmill-Herren and Monica Kobayashi. A workshop convened from 27 to 29 November 2017 in collaboration with IPBES, the University of Reading, and the Convention on Biological Diversity brought together regional experts on pollinators to discuss and assess the role of pollinators and pollination services in supporting ecosystems beyond agricultural systems and in supporting ecosystem services beyond food production.

services, such as ornamentals, biofuels, fibres, construction materials, musical instruments, arts, crafts and recreation activities. Pollinator-dependent plants also recycle CO_2, regulate climate, and improve air and water quality. Furthermore, several micronutrients, including vitamins A and C, calcium, fluoride and folic acid are obtained primarily from pollinator-dependent plants. Additionally, pollinator products are employed for improving health, such as antibacterial, anti-fungal and anti-diabetic agents. Pollinator insects, including the larvae of bees, beetles and palm weevils, constitute a significant proportion of the approximately 2,000 insect species consumed globally, being high in protein, vitamins, and minerals.

C. Status and trends of pollinators and pollinator-dependent plants in all ecosystems

9. Many insect pollinators (e.g. wild bees, butterflies, wasps and beetles) as well as vertebrate pollinators (e.g. birds, marsupial, rodents and bats) have been declining in abundance, occurrence and diversity at the local and regional levels. The number of plant species that rely on pollinators is declining when compared to self-compatible or wind-pollinated plants.

10. For all regions, land use change is reported as the main driver of pollinator decline. In Africa, deforestation continues to occur as a result of the conversion of land for agriculture and the use of timber for construction and fuel. In Latin America and Asia and the Pacific, increasing soybean cultivation and oil palm plantations respectively has impacted many important biomes.

11. Wild bee nests in nature are in danger of depletion as a result of logging practices. In Malaysia and Brazil, it has been shown that logging reduces the number of wild bee nests and, as a consequence, pollinators, which has implications for forest recovery or restoration. Logging also reduces the forest habitat that contains suitable, unoccupied nesting sites. The loss of pollinators occurs even if the current rules for certified wood management are taken into account.

12. Additionally, in Africa, the frequency and intensity of fires, which, in turn, affect the reseeding and re-sprouting of plants, affect different ecosystems due to a high degree of pollinator-plant specialization. Such specialization suggests a marked susceptibility to pollinator loss, and reliance on a single species of pollinator is potentially risky in the face of global changes. Climate change models suggest that fires might increase in frequency, as the length of the fire weather season will increase.

13. In Latin America, alien bee invasions are reported as the second driver of local bee decline. Introduced bee species are also a concern, for instance, in Japan, where there is a potential for disruption of the native pollination network. In Asia, the erosion of traditional knowledge, including the management of local bees, may contribute to local pollinator declines. For Europe, Canada and the United States, Australia and New Zealand, the risk to pollinators from pesticides and the transmission of pathogens and parasites is an important concern.

14. A lack of spatial and temporal changes in wild pollinators in many regions, combined with little known taxonomy, hampers assessment of the status and trends of pollinators. In addition, a lack of global Red List assessments specifically for insect pollinators and, in most parts of the world, the lack of long-term population data or benchmark data to compare the present status of wild pollinator populations make it difficult to discern any temporal trend.

15. The habitats and biomes identified as most vulnerable to pollinator declines per region are:

(a) *Africa*: Tropical forest, dry deciduous forest, subtropical forest, Mediterranean, mountain grasslands, tropical and subtropical savannas and grasslands, drylands and deserts, wetlands and dambos, urban and peri-urban, coastal areas;

(b) *Asia and the Pacific*: Tropical dry evergreen forests;

(c) *Latin America*: Andes, Mesoamerican Mountains and regions of high altitude, the subtropical Chaco forest, the Cerrado savannah, the Pantanal wetland, the Amazonian forest, and the Atlantic Forest;

(d) *Europe, Canada, the United States, Australia and New Zealand*: mires and bogs, grasslands, heathland, and scrub.

16. The Atlantic forest is a biome rich in plant-pollinator mutualisms which, with only 29 per cent of its original forest cover,[235] is highly threatened through habitat loss and fragmentation. The extreme fragmentation of this biome has implied a differential loss of plant species with relatively specialized pollination and sexual systems that only survive in the interior of large remnants. In the Chaco Dry Forest, it has been suggested that an increase in selfing (self-pollination) could be associated with the invasion of Africanized honey bees.

[235] Official data: http://www.mma.gov.br/biomas/mata-atl%C3%A2ntica_emdesenvolvimento

17. Climate change is considered a significant potential threat in Europe and North America. Bumble bees are failing to track warming by colonizing new habitats north of their historic range. Simultaneously, they are disappearing from the southern portions of their range. Some species have declined severely.

18. Meliponiculture – beekeeping with stingless bees (Meliponini) – is widely undertaken by indigenous peoples and local communities with knowledge passed orally through generations. Stingless bees are useful pollinators for crops and wild fruits, and most of them produce honey, which is used for medicinal purposes. While meliponiculture is an economic opportunity for tropical countries, the large-scale rearing of stingless bees may have negative impacts and is considered a current challenge.

19. The introduction of honeybee (*Apis*) species in mangroves has been explored in many countries, such as China, Cuba, India and the United States, and is also increasing in Thailand and Brazil. This activity may have the potential to contribute to the conservation of the mangrove systems, but the impacts need to be further assessed. Management of colonies, including artificial reproduction and queen rearing, needs to be advanced in order to use natural resources in a sustainable way.

20. Regarding the impact of pesticides on non-target species, a recent meta-analysis showed that, when compared to honeybees, stingless bees are more sensitive to various pesticides. Experimental studies performed with other pollinators, such as the great fruit-eating bat (*Artibeus lituratus*) from Brazil, indicate that the chronic exposure of fruit bats to relevant concentrations of endosulfan can lead to significant bioaccumulation, which may affect the health of this important seed disperser in neotropical forests. Similarly, analysis of long-term butterfly population data from Northern California revealed a negative association between butterfly populations and increasing neonicotinoid application. A controlled landscape experiment implemented across three countries (Hungary, Germany and the United Kingdom) that employed oilseed rape (canola) treated with neonicotinoids (clothianidin or thiamethoxam) showed that wild bee reproduction (*B. terrestris* and *Osmia bicornis*) was negatively correlated with neonicotinoid residues in the bee nests.

21. [Genetically modified crops that carry traits for herbicide tolerance or insect resistance may threaten pollinators by lethal or sublethal effects on adult insects or larvae. However, recent reviews showed no clear negative effects of genetically modified organisms on honeybees]. [With regard to potential lethal or sublethal effects on pollinators by genetically modified crops carrying traits for herbicide tolerance or insect resistance, even though some recent reviews show no clear negative effects of genetically modified organisms on honeybees, it is premature to reach a conclusion on such effects. Therefore, more studies are needed on more pollinator species and circumstances.]

22. Latin America hosts the wild germplasm of many food crops[236] that directly or indirectly depend on pollinators for high yield. Germplasm of these, and perhaps of hundreds of wild species with agricultural potential, persists in remnants of natural and seminatural habitats and under the management of local indigenous communities in this region. Therefore, diverse pollinator assemblages are important to ensure not only the reproduction of wild plants in general but also the persistence of this germplasm. Yet, perhaps with a few exceptions, the occurrence and diversity of this germplasm and its current conservation status are unknown.

D. Response options for the conservation and sustainable use of pollinators and their habitats

23. Many of the activities identified in the IPBES assessment and reflected in decision XIII/15, will contribute to the conservation and sustainable use of pollinators and their habitats and thereby help to sustain pollination functions in ecosystems beyond agricultural systems and food production.

24. A landscape-wide approach is particularly relevant for the conservation and sustainable use of pollinators and their habitats to sustain pollination functions in ecosystems beyond agricultural systems and food production. This includes the maintenance of natural vegetation corridors, restoration of degraded lands, and the use of pollination-friendly farming. Special attention is needed to reduce deforestation and habitat loss and degradation in all biomes. Fire management regimes should take into account impacts on pollinators and related vegetation. Restoration can increase the connectivity of pollinator-friendly habitats and support species dispersal and gene flow. These measures can also contribute to climate change adaptation and mitigation and disaster risk reduction.

25. The following actions could be taken in support of a landscape approach:

(a) Areas managed by indigenous peoples and local communities are important for the conservation of biodiversity;

[236] These crops include potato, tomato, pepper, cacao, strawberry, quinoa, amaranto, avocado, sweet potato, acai, palmito, Brazil nut, guarana, passion fruit and yucca.

(b) Significant land use changes are related to deforestation caused by crops. Raising the awareness of the buyers of those commodities can increase pressure for attaining sustainable production;

(c) Data collection, maps and modelling are important tools to predict the impact of global change and to support policies for the conservation, restoration and regeneration of natural habitats;

(d) Landscape genetics is a tool to determine population characteristics of pollinators, as well as the genetic consequences of bee management in large areas, inside or outside their distribution areas.

26. There is an urgent need to set up and harmonize regulations for the trade in managed pollinators (best management practices, risk management and monitoring to prevent risks, harmonized reporting procedure, data management strategy) so that current and emerging risks and threats can be detected in near-real time and across borders, allowing for response measures.

27. Sustainable wood management and certification rules should take into account measures such as the capture, transportation and safeguard of beehives found in forestry products.

28. There is a need to improve knowledge of pollinators and pollination and their role in maintaining ecosystem health and integrity beyond agriculture and food production. The majority of existing literature focuses on specific hymenopteran groups. There is a lack of information on the impact of landscape changes or pesticides on non-bee taxa.

29. The following actions could be taken in support of improving knowledge:

(a) Improved knowledge management, including through taxonomy, volunteer recording, DNA barcoding, biodiversity informatics tools, geographical referencing for the museum specimens, standardized long-term monitoring of pollinators and pollination functions and services;

(b) Attention to traditional and experiential knowledge, noting that conventional knowledge synthesis methods are not necessarily appropriate for synthesizing other forms of knowledge, such as indigenous and local knowledge or tacit knowledge held by practitioners, such as land managers and conservationists.

Item 24. Spatial planning, protected areas, and other effective area-based conservation measures

The following is taken from recommendation 22/5 of the Subsidiary Body on Scientific, Technical and Technological Advice

The Conference of the Parties

1. *Welcomes* the voluntary guidance on integration of protected areas and other effective areas-based conservation measures into the wider land- and seascapes and on mainstreaming these into sectors, as well as the voluntary guidance on governance and equity, contained in annexes I and II, respectively, to the present draft decision;

2. *Adopts* the following definition of "other effective area-based conservation measures":

"Other effective area-based conservation measure" means "a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity,[237] with associated ecosystem functions and services and where applicable, cultural, spiritual, socio–economic, and other locally relevant values";

3. *Welcomes* the scientific and technical advice on other effective area-based conservation measures, contained in annex III to the present draft decision, to be applied in a flexible way and on a case-by-case basis;

4. *Encourages* Parties and *invites* other Governments, relevant organizations, in collaboration with indigenous peoples and local communities, to apply the voluntary guidance contained in annexes I and II, on integration and mainstreaming, and governance and equity of protected areas and other effective

[237] As defined by Article 2 of the Convention on Biological Diversity and in line with the provisions of the Convention.

area-based conservation measures, as appropriate, in accordance with national circumstances and legislation, and consistent and in harmony with the Convention and other international obligations;

5. *Encourages* Parties and *invites* other Governments, relevant organizations, in collaboration with indigenous peoples and local communities, to apply the scientific and technical advice on other effective area-based conservation measures contained in annex III, also taking into account, where appropriate, the 2016 report of the United Nations Special Rapporteur on the rights of indigenous peoples on the theme "indigenous peoples and conservation"[238] and the 2017 report of the United Nations Special Rapporteur on human rights and the environment,[239] including by:

(a) Identifying other effective area-based conservation measures and their diverse options within their jurisdiction;

(b) Submitting data on other effective area-based conservation measures to the United Nations Environment Programme's World Conservation Monitoring Centre for inclusion in the World Database on Protected Areas;

6. *Encourages* Parties and *invites* other Governments, relevant organizations and indigenous peoples and local communities to take into account the considerations in achieving Aichi Biodiversity Target 11 in marine and coastal areas, as contained in annex IV to the present draft decision, in their efforts to achieve all elements of Aichi Biodiversity Target 11 in marine and coastal areas;

7. *Also encourages* Parties and *invites* other Governments, relevant organizations, and indigenous peoples and local communities to share case studies/best practices and examples of management approaches, governance types and effectiveness related to other effective area-based conservation measures, including experiences with the application of the guidance, through the clearing-house mechanism of the Convention and other means;

8. *Invites* the International Union for Conservation of Nature and the World Conservation Monitoring Centre to expand the World Database on Protected Areas by providing a section on other effective area-based conservation measures;

9. *Invites* the International Union for Conservation of Nature, the Food and Agriculture Organization of the United Nations, and other expert bodies to continue to assist Parties in identifying other effective area-based conservation measures and in applying the scientific and technical advice;

10. *Requests* the Executive Secretary, subject to available resources, and in collaboration with partners, Parties, other Governments, relevant organizations and indigenous and local communities, to provide capacity-building, including training workshops, to enable the application of the scientific and technical advice and guidance contained in the annexes to the present draft decision;

11. *Urges* Parties, and *invites* other Governments, relevant organizations and donors in a position to do so to provide resources for capacity-building, and to support Parties and indigenous peoples and local communities to identify other effective area-based conservation measures and to apply the scientific and technical advice and guidance;

12. *Urges* Parties to facilitate mainstreaming of protected areas and other effective area-based conservation measures into key sectors, such as, inter alia, agriculture, fisheries, forestry, mining, energy, tourism and transportation, and in line with annex I.

---

[238] Report of the Special Rapporteur of the Human Rights Council on the rights of indigenous peoples, Victoria Tauli-Corpuz (A/71/229).

[239] Report of the Special Rapporteur of the Human Rights Council on the issues of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John Knox (A/HRC/34/49).

Annex I

VOLUNTARY GUIDANCE ON THE INTEGRATION OF PROTECTED AREAS AND OTHER EFFECTIVE AREA-BASED CONSERVATION MEASURES INTO WIDER LAND- AND SEASCAPES AND MAINSTREAMING ACROSS SECTORS TO CONTRIBUTE, INTER ALIA, TO THE SUSTAINABLE DEVELOPMENT GOALS

I. CONTEXT

1. The integration of protected areas into wider landscapes, seascapes and sectors is made up of several components. Habitat fragmentation can have profound impacts on the functioning and integrity of complex ecological systems. The rate and extent of fragmentation, especially of forests, is immense. A 2018 study found that 70 per cent of the global forest cover is only within 1 kilometre of a forest edge (such as a road, or converted land use, such as agriculture), reducing biodiversity by as much as 75 per cent and imperilling ecosystem functioning.[240] Intact habitat is increasingly recognized as essential for the functioning of larger ecological systems, as well as for ecosystem functions and services, including the cycling of water and carbon, and human health.[241]

2. In the programme of work on protected areas, Goal 1.2 states that "By 2015, all protected areas and protected area systems are integrated into the wider land- and seascape, and relevant sectors, by applying the ecosystem approach and taking into account ecological connectivity and the concept, where appropriate, of ecological networks." In decision X/6, the Conference of the Parties, among other things, highlighted for Parties the importance of integrating biodiversity into poverty eradication and development, and in decision XIII/3, among other things, stressed the importance of mainstreaming and integrating biodiversity within and across sectors. In decision X/31, the Conference of the Parties, among other things, invited Parties to facilitate the integration of protected areas in national and economic development plans, where they exist.

3. Protected area integration can be defined as: "the process of ensuring that the design and management of protected areas, corridors and the surrounding matrix fosters a connected, functional ecological network."[242] Protected area mainstreaming can be defined as the integration of the values, impacts and dependencies of the biodiversity and ecosystem functions and services provided by protected areas into key sectors, such as agriculture, fisheries, forestry, mining, energy, tourism, transportation, education and health.

4. Protected areas safeguard the biodiversity and ecosystems that underpin the Sustainable Development Goals.[243] Protected areas are especially important in achieving goals related to poverty alleviation, water security, carbon sequestration, climate change adaptation, economic development and disaster risk reduction. Protected areas are an essential strategy for the emerging field of nature-based solutions to various global challenges, such as water security.[244] They are particularly important as a nature-based solution for climate mitigation[245] and climate adaptation.[246] Nature could provide at least a third of climate solutions if the planet is to stay under 1.5° C, and protected areas are an essential strategy for achieving this goal.

5. Despite this, the progress of protected area integration and mainstreaming remains slow, with very few countries identifying specific strategies within their national biodiversity strategies and action plans.[247] Urgent action is required by Parties to make progress on both of these aims.

---

[240] Hadded, N.M. et al. 2015. Habitat fragmentation and its lasting impact on Earth's ecosystems. Science Advances: 1(2): e1500052, Mar 2015. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4643828/

[241] Watson, J. et al. 2018. The exceptional value of intact forest ecosystems. Nature Ecology and Evolution 2, 599-610.

[242] Ervin, J., K. J. Mulongoy, K. Lawrence, E. Game, D. Sheppard, P. Bridgewater, G. Bennett, S.B. Gidda and P. Bos. 2010. Making Protected Areas Relevant: A guide to integrating protected areas into wider landscapes, seascapes and sectoral plans and strategies. CBD Technical Series No. 44. Montreal, Canada: Convention on Biological Diversity, 94 pp.

[243] See for example CBD. 2016. Biodiversity and the 2030 Agenda. Montreal: Secretariat of the Convention on Biological Diversity. Available at https://www.cbd.int/development/doc/biodiversity-2030-agenda-policy-brief-en.pdf

[244] See for example: United Nations Development Programme. 2018. Nature for water, Nature for life: Nature-based solutions for achieving the Global Goals. New York, UNDP; available at www.natureforlife.world.

[245] See Bronson et al., 2017. Natural Climate Solutions. PNAS: 114(44): 11645-11650 available at: http://www.pnas.org/content/114/44/11645.

[246] Dudley, N. et al. 2009. Natural Solutions – Protected Areas: Helping People Cope with Climate Change. Switzerland: IUCN. Available at: https://www.iucn.org/content/natural-solutions-protected-areas-helping-people-cope-climate-change.

[247] See UNDP. 2016. National Biodiversity Strategies and Action Plans: Natural Catalysts for Accelerating Action on Sustainable Development Goals. Interim Report. United Nations Development Programme. December 2016. UNDP: New York, United States of America. 10017, available at: https://www.cbd.int/doc/nbsap/NBSAPs-catalysts-SDGs.pdf

II. VOLUNTARY GUIDANCE

A. Suggested steps for enhancing and supporting integration into landscapes, seascapes and sectors

(a) *Review national visions, goals and targets* to ensure that they include elements of integration of protected areas and other effective area-based conservation measures for increasing habitat connectivity and decreasing habitat fragmentation at the landscape and seascape scale;

(b) *Identify key species, ecosystems and ecological processes* for which fragmentation is a key issue and which can benefit from improved connectivity, including those species, ecosystems and ecological processes that are vulnerable to the impacts of climate change;

(c) *Identify and prioritize important areas to improve connectivity* and to mitigate the impacts of fragmentation of landscapes and seascapes, including areas that create barriers and bottlenecks for annual and seasonal species movement, for various life stages, and for climate adaptation, and areas that are important for maintaining ecosystem functioning (e.g., riverine flood plains);

(d) *Conduct a national review* of the status and trends of landscape and seascape habitat fragmentation and connectivity for key species, ecosystems and ecological processes, including a review of the role of protected areas and other effective area-based conservation measures, in maintaining landscape and seascape connectivity, and any key gaps;

(e) *Identify and prioritize the sectors* most responsible for habitat fragmentation, including transportation, agriculture, energy, infrastructure and urban development, and develop strategies to engage them in developing strategies for mitigating the impacts on protected areas and protected area networks including other effective area-based conservation measures, and areas under active restoration programmes;

(f) *Review and adapt landscape and seascape plans and frameworks (both within and across sectors), including, for example, land-use and marine spatial plans, and sectoral plans*, such as subnational land-use plans, integrated watershed plans, integrated marine and coastal area management plans, transportation plans, and water-related plans, in order to improve connectivity and complementarity and reduce fragmentation and impacts;

(g) *Prioritize and implement measures* to decrease habitat fragmentation within landscapes and seascapes and to increase connectivity, including the creation of new protected areas and the identification of other effective area-based conservation measures, as well as indigenous and community conserved areas, that can serve as stepping stones between habitats, the creation of conservation corridors to connect key habitats, the creation of buffer zones to mitigate the impacts of various sectors, to enhance the protected and conserved areas estate, and the promotion of sectoral practices that reduce and mitigate their impacts on biodiversity, such as organic agriculture and long-rotation forestry.

B. Suggested steps for enhancing and supporting the mainstreaming of protected areas and other effective area-based conservation measures across sectors

(a) *Identify, map and prioritize areas important for essential ecosystem functions and services*, including ecosystems that are important for food (e.g., mangroves for fisheries), for climate mitigation (e.g., carbon-dense ecosystems, such as forests, peatlands, mangroves), for water security (e.g., mountains, forests, wetlands and grasses that provide both surface and groundwater), for poverty alleviation (e.g., ecosystems that provide subsistence, livelihoods and employment), and for disaster risk reduction (e.g., ecosystems that buffer impacts from coastal storms, such as reefs, seagrass beds, floodplains);

(b) *Review and update sectoral plans* to ensure that the many values provided by protected areas and other effective area-based conservation measures, are recognized and incorporated into sectoral plans;

(c) *Develop targeted communications campaigns* aimed at the various sectors, both government and private, that depend upon the biodiversity and ecosystem functions and services provided by protected areas and other effective area-based conservation measures, including agriculture, fisheries, forestry, water, tourism, national and subnational security, development, and climate change, with the objective of increasing awareness of the value of nature for their sectors;

(d) *Review and revise existing policy and finance frameworks* to identify opportunities to improve the enabling policy and finance environment for sectoral mainstreaming;

(e) *Encourage innovative finance*, including impact investors, insurance companies and others, to identify and finance new protected areas, and restoration of key degraded protected areas to deliver on essential ecosystem functions and services;

(f) *Assess and update the capacities required* to improve the mainstreaming of protected areas, including capacities related to creating enabling policy environments, to spatial mapping of essential ecosystem functions and services, and to assessing the economic values of ecosystem functions and services.

Annex II

VOLUNTARY GUIDANCE ON EFFECTIVE GOVERNANCE MODELS FOR MANAGEMENT OF PROTECTED AREAS, INCLUDING EQUITY, TAKING INTO ACCOUNT WORK BEING UNDERTAKEN UNDER ARTICLE 8(J) AND RELATED PROVISIONS

I. CONTEXT

1. Governance is a key factor for protected areas to succeed in conserving biodiversity and supporting sustainable livelihoods. Enhancing protected area governance in terms of diversity, quality, effectiveness and equity can facilitate the achievement of Aichi Biodiversity Target 11 and help face ongoing local and global challenges.[248] The achievement of the coverage, representativeness, connectivity and qualitative elements of Target 11 can be facilitated by recognizing the role and contributions of a diversity of actors and approaches for area-based conservation. Such diversity broadens ownership, potentially promoting collaboration and reducing conflict as well as facilitating resilience in the face of change.

2. Governance arrangements for protected and conserved areas that are tailored to their specific context, socially inclusive, respectful of rights, and effective in delivering conservation and livelihood outcomes tend to increase the legitimacy of protected and conserved areas for indigenous peoples and local communities, and society at large.

3. In decision X/31, the Conference of the Parties, among other things, identified Element 2 on governance, participation, equity and benefit-sharing of the programme of work on protected areas as a priority issue in need of greater attention.[249] Since then, Parties have gained experience, and methodologies and tools have been developed to assess governance and design action plans. These have led to an increased understanding of essential concepts, particularly equity.[250]

A. Voluntary guidance on governance diversity

4. The Convention on Biological Diversity and the International Union for Conservation of Nature (IUCN) distinguish four broad governance types for protected and conserved areas according to which actors have authority and a responsibility to make and enforce decisions: (a) governance by government; (b) shared governance (by various actors together[251]); (c) governance by private individuals or organizations (often land owners and in the form of private protected areas (PPAs)); and (d) governance by indigenous peoples and/or local communities (often referred to as territories and areas conserved by indigenous peoples and local communities (ICCAs) or Indigenous Protected Areas (IPAs)).

5. Diversity of governance pertains primarily to the existence of a range of different governance types and sub-types, in terms of both legal provisions and practices, and their complementarity in achieving *in situ* conservation.

[248] Several studies, including a recent analysis of 165 protected areas from around the world, have found that those sites where *local people* are directly engaged and benefit from the conservation efforts are more effective with respect to both biodiversity conservation and socio-economic development. Oldekop, J.A., et al. (2015). A global assessment of the social and conservation outcomes of protected areas – *Conservation Biology*, 30(1): 133-141.

[249] In this same decision, Parties were invited to establish clear mechanisms and processes for equitable cost and benefit-sharing and for full and effective participation of indigenous and local communities, related to protected areas, in accordance with national laws and applicable international obligations; as well as to recognize the role of indigenous and local community conserved areas (ICCAs) and conserved areas of other stakeholders in biodiversity conservation, collaborative management and diversification of governance types.

[250] CBD/SBSTTA/22/INF/8.

[251] Such as between indigenous peoples and local communities and Governments or between private individuals and Governments.

The concept of governance type is also relevant for the question whether a given type is appropriate to a specific context.[252]

6. In line with decisions VII/28 and X/31, this voluntary guidance suggests steps that can be followed in relation to the recognition, support, verification and coordination, tracking, monitoring and reporting of areas voluntarily conserved by indigenous peoples and local communities, private landowners and other actors. Particularly in the case of territories and areas under the governance of indigenous peoples and local communities, such steps should be taken with their free, prior and informed consent, consistent with national policies, regulations and circumstances, and based on respect for their rights, knowledge and institutions. In addition, in the case of areas conserved by private landowners, such steps should be taken with their approval and on the basis of respect for the owners' rights and knowledge.[253]

7. Suggested steps for enhancing and supporting governance diversity in national or subnational systems of protected and conserved areas include:

(a) *Develop a high-level policy or vision statement in consultation with stakeholders* that acknowledges a diversity of conservation actors and their contributions to national or subnational systems of protected and conserved areas. Such a statement would help to create the framework for subsequent legislative adaptations. It may also provide encouragement for *in situ* conservation initiatives of actors;[254]

(b) *Facilitate the coordinated management of multiple sites* of different governance types to achieve conservation objectives at larger landscape and seascape scales by appropriate means;

(c) *Clarify and determine the institutional mandates, roles and responsibilities* of all relevant State and non-State actors recognized in the national or subnational protected and conserved areas system, in coordination with other (subnational, sectoral) jurisdictions where applicable;

(d) *Conduct a system-level governance assessment as a collaborative multi-stakeholder process*. In large part, such an assessment serves as a gap analysis between an existing national or subnational protected area network and the potentially achievable area-based conservation, if areas presently protected or conserved *de facto* by various actors and approaches were recognized, encouraged and supported to take or share responsibility;[255,256]

(e) *Facilitate the coordinated monitoring and reporting*, on protected and conserved areas under different governance types by appropriate means and in accordance with national legislation, including to the World Database on Protected Areas, and taking appropriate account of their contributions to the elements of Target 11;

(f) *Review and adapt the policy, legal and regulatory framework for protected and conserved areas* on the basis of the opportunities identified in the assessment and in line with decision X/31 to incentivize and legally recognize different governance types;[257]

(g) *Support and secure the protection status* of the protected and conserved areas under all governance types through appropriate means;

(h) *Support national associations or alliances* of protected and conserved areas according to governance types (e.g., ICCA alliance, PPA association) to provide peer support mechanisms;

(i) *Verify the contribution of such areas* to the overall achievement of the country's system of protected areas in terms of coverage and conservation status by mapping and other appropriate means.

---

[252] This is because governance type is about which actor or actors are in the lead for initiating the establishment of, and holding of authority and responsibility for, protected or conserved areas and varies with different contexts of tenure and stakeholder aspirations.

[253] Useful guidance includes: CBD Technical Series No. 64, the United Nations Declaration on the Rights of Indigenous Peoples; Sue Stolton, Kent H. Redford and Nigel Dudley (2014). *The Futures of Privately Protected Areas*. Gland, Switzerland, IUCN.

[254] Actors such as subnational governments, local governments, landowners, small farmers, non-governmental organizations and other private entities, and indigenous peoples and local communities.

[255] Useful guidance includes: IUCN Best Practice Guidelines No. 20: Governance of Protected Areas: from Understanding to Action (2013).

[256] Such an assessment also helps identify areas of particular importance for biodiversity, their conservation and protection status, and how and by whom they are governed, indicating opportunities for potential contributions to existing networks. Considerations of economic, social and cultural costs and benefits should be taken into account.

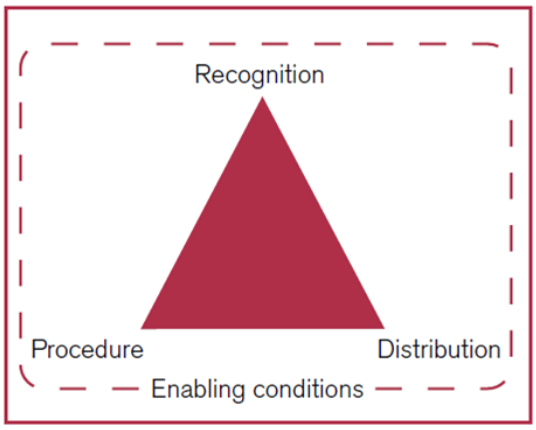
[257] A substantial body of guidance as well as experiences from a number of Parties are available for interested Governments and other stakeholders. Useful guidance includes: CBD Technical Series No.64, Sue Stolton, Kent H. Redford and Nigel Dudley (2014). *The Futures of Privately Protected Areas*. Gland, Switzerland, IUCN; and information document CBD/SBSTTA/22/INF/8.

B. Voluntary guidance on effective and equitable governance models

8. Effective and equitable governance models for protected and conserved areas are arrangements for decision-making and implementation of decisions in which "good governance" principles are adopted and applied. Good governance principles should be applied irrespective of governance type. Based on the good governance principles developed by United Nations agencies and other organizations, IUCN has suggested governance principles and considerations for the context of protected and conserved areas as guidance for decisions to be taken and implemented legitimately, competently, inclusively, fairly, with a sense of vision, accountably and while respecting rights.[258]

9. The concept of equity is one element of good governance. Equity can be broken down into three dimensions: recognition, procedure and distribution: "Recognition" is the acknowledgement of and respect for the rights and the diversity of identities, values, knowledge systems and institutions of rights holders[259] and stakeholders; "Procedure" refers to inclusiveness of rule- and decision-making; "Distribution" implies that costs and benefits resulting from the management of protected areas must be equitably shared among different actors. The figure below shows the three dimensions. A recently developed framework for advancing equity in the context of protected areas[260,261] proposes a set of principles against which the three dimensions can be assessed.

Figure. The three dimensions of equity embedded within a set of enabling conditions



Source: Adapted from McDermott et al. (2013). Examining equity: A multidimensional framework for assessing equity in payments for ecosystem service. *Environmental Science and Policy* 33: 416-427 and Pascual et al. (2014). Social equity matters in payments for ecosystem services. *Bioscience* 64(11) 1027-1036.

10. Good governance implies that potential negative impacts, particularly on the human well-being of vulnerable and natural resource-dependent people, are assessed, monitored and avoided or mitigated, and positive impacts enhanced. The governance type and the arrangements for decision-making and implementation need to be tailored to the specific context in such a way as to ensure that rights holders and stakeholders that are impacted by the protected area can participate effectively.

11. Elements of effective and equitable governance models for protected and conserved areas may include:

(a) Appropriate procedures and mechanisms for the full and effective participation of indigenous peoples and local communities,[262] ensuring gender equality in full respect of their rights and recognition of their responsibilities, in accordance with national legislation and ensuring legitimate representation, including in the

[258] IUCN Best Practice Guidelines No. 20.

[259] In the context of protected areas, "rights holders" are actors with legal or customary rights to natural resources and land. "Stakeholders" are actors with interest and concerns over natural resources and land.

[260] Schreckenberg, K., et.al. (2016): Unpacking Equity for Protected Area Conservation, *PARKS Journal*.

[261] "Protected areas: facilitating the achievement of Aichi Biodiversity Target 11" (UNEP/CBD/COP/13/INF/17).

[262] Effective participation of other stakeholders applies to public entities, governing the protected area, whereas coordination with other stakeholders applies to non-state actors, governing the protected area.

establishment, governance, planning, monitoring and reporting of protected and conserved areas on their traditional territories (lands and waters);[263]

(b) Appropriate procedures and mechanisms for the effective participation of and/or coordination with other stakeholders;

(c) Appropriate procedures and mechanisms to recognize and accommodate customary tenure and governance systems in protected areas,[264] including customary practices and customary sustainable use, in line with the Plan of Action on Customary Sustainable Use;[265]

(d) Appropriate mechanisms for transparency and accountability, taking into consideration internationally agreed standards and best practices;[266]

(e) Appropriate procedures and mechanisms for fair dispute or conflict resolution;

(f) Provisions for equitable sharing of benefits and costs, including through: (i) assessing the economic and sociocultural costs and benefits associated with the establishment and management of protected areas; (ii) mitigating, avoiding or compensating for costs; and (iii) equitably sharing benefits[267] based on criteria agreed among rights holders and stakeholders;[268]

(g) Safeguards that ensure the impartial and effective implementation of the rule of law;

(h) A monitoring system that covers governance issues, including impacts on the well-being of indigenous peoples and local communities;

(i) Consistency with Articles 8(j) and 10(c) and related provisions, principles and guidelines, including through respecting, preserving, and maintaining the traditional knowledge of indigenous peoples and local communities,[269] and with due respect for customary sustainable use of biodiversity.

12. Suggested actions that could be taken by Parties to enable and support effective and equitable governance models tailored to their context for protected areas under their mandate include:

(a) Conduct, in consultation with relevant rights holders and stakeholders, a review of protected area policy and legislation against good governance principles, including equity, and taking into consideration relevant internationally agreed standards and guidance.[270] Such a review can be conducted as part of a system-level governance assessment;

(b) Facilitate and engage in site-level governance assessments in participatory multi-stakeholder processes, take actions for improvement at the site level and draw lessons for the policy level;[271]

(c) Adapt protected area policy and legislation for their establishment, governance, planning, management and reporting as appropriate on the basis of the review and its results and taking into consideration elements indicated under paragraph 11 above;

---

[263] See also decision VII/28: "notes that the establishment, management and monitoring of protected areas should take place with the full and effective participation of, and full respect for the rights of, indigenous and local communities consistent with national law and applicable international obligations".

[264] Useful guidance includes: FAO Voluntary Guidelines on the Responsible Governance of Tenure (2012); CBD Technical Series No. 64.

[265] Decision XII/12, annex, particularly task III related to protected areas.

[266] Useful guidance includes: United Nations Economic Commission for Europe, Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters ("Aarhus Convention").

[267] Decision VII/28, Suggested Activity 2.1.1; Decision IX/18 A, paragraph 6(e); Decision X/31, paras. 31(a) and 32(d).

[268] Franks, P et al. (2018) Understanding and assessing equity in protected area conservation: a matter of governance, rights, social impacts and human wellbeing. IIED Issue Paper. IIED, London.

[269] Decision VII/28, Suggested activity 1.1.7 of Goal 1 of the Programme of Work on Protected Areas.

[270] Useful guidance includes: United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters ("Aarhus Convention"); FAO Voluntary Guidelines on the Responsible Governance of Tenure (2012); CBD Plan of Action on Customary Sustainable Use (Decision XII/12, annex); Akwé Kon Guidelines; United Nations Declaration on the Rights of Indigenous Peoples; FAO Voluntary Guidelines on Small-scale Fisheries.

[271] Useful guidance includes: Site-level governance assessment methodology (IIED, forthcoming) - Site-level assessments help to understand governance in practice and to identify options for improvement and/or for better tailoring governance type and decision-making arrangements to the local context.

(d) Facilitate assessment and monitoring of economic and sociocultural costs and benefits associated with the establishment and management of protected areas, and avoid, mitigate or compensate for costs while enhancing and equitably distributing benefits;[272]

(e) Establish or strengthen national policies for access to genetic resources within protected areas and the fair and equitable sharing of benefits arising from their utilization;[273]

(f) Facilitate and engage in capacity-building initiatives on governance and equity for protected and conserved areas;

(g) Facilitate appropriate funding to secure effective participation of all rights holders and stakeholders.

13. Suggested actions that could be taken by other actors governing protected areas to enhance the effectiveness and equity of governance include:

(a) Conduct site-level governance and equity assessments in ways that are inclusive of rights holders and stakeholders, and take action aimed at improvement;

(b) Assess, monitor and mitigate any negative impacts arising from the establishment and/or maintenance of a protected or conserved area and enhance positive ones;[274]

(c) Engage in capacity-building initiatives on governance and equity for protected and conserved areas.

Annex III

SCIENTIFIC AND TECHNICAL ADVICE ON OTHER EFFECTIVE AREA-BASED CONSERVATION MEASURES

The guiding principles and common characteristics and criteria for identification of other effective area-based conservation measures are applicable across all ecosystems currently or potentially important for biodiversity, and should be applied in a flexible way and on a case-by-case basis.

A. GUIDING PRINCIPLES AND COMMON CHARACTERISTICS

(a) Other effective area-based conservation measures have a significant biodiversity value, or have objectives to achieve this, which is the basis for their consideration to achieve Target 11 of Strategic Goal C of the Strategic Plan for Biodiversity 2011-2020;

(b) Other effective area-based conservation measures have an important role in the conservation of biodiversity and ecosystem functions and services, complementary to protected areas and contributing to the coherence and connectivity of protected area networks, as well as in mainstreaming biodiversity into other uses in land and sea, and across sectors. Other effective area-based conservation measures should, therefore, strengthen the existing protected area networks, as appropriate;

(c) Other effective area-based conservation measures reflect an opportunity to provide *in situ* conservation of biodiversity over the long-term in marine, terrestrial and freshwater ecosystems. They may allow for sustainable human activity while offering a clear benefit to biodiversity conservation. By recognizing an area, there is an incentive for sustaining existing biodiversity values and improving biodiversity conservation outcomes;

(d) Other effective area-based conservation measures deliver biodiversity outcomes of comparable importance to and complementary with those of protected areas; this includes their contribution to representativeness, the coverage of areas important for biodiversity and associated ecosystem functions and services, connectivity and integration in wider landscapes and seascapes, as well as management effectiveness and equity requirements;

(e) Other effective area-based conservation measures, with relevant scientific and technical information and knowledge, have the potential to demonstrate positive biodiversity outcomes by successfully conserving *in situ* species, habitat and ecosystems and associated ecosystem functions and services and by preventing, reducing or eliminating existing, or potential threats, and increasing resilience. Management of other effective area-based conservation measures is consistent with the ecosystem approach and the precautionary approach, providing the

[272] Useful guidance includes: Franks, P and Small, R (2016) Social Assessment for Protected Areas (SAPA). Methodology Manual for SAPA Facilitators. IIED, London.

[273] Decision VII/28, Suggested Activity 2.1.6.

[274] Useful guidance includes: Social Assessment for Protected Areas (SAPA).

ability to adapt to achieve biodiversity outcomes, including long-term outcomes, inter alia, the ability to manage a new threat;

(f) Other effective area-based conservation measures can help deliver greater representativeness and connectivity in protected area systems and thus may help address larger and pervasive threats to the components of biodiversity and ecosystem functions and services, and enhance resilience, including with regard to climate change;

(g) Recognition of other effective area-based conservation measures should follow appropriate consultation with relevant governance authorities, land owners and rights owners, stakeholders and the public;

(h) Recognition of other effective area-based conservation measures should be supported by measures to enhance the governance capacity of their legitimate authorities and secure their positive and sustained outcomes for biodiversity, including, inter alia, policy frameworks and regulations to prevent and respond to threats;

(i) Recognition of other effective area-based conservation measures in areas within the territories of indigenous peoples and local communities should be on the basis of self-identification and with their free, prior and informed consent, as appropriate, and consistent with national policies, regulations and circumstances;

(j) Areas conserved for cultural and spiritual values, and governance and management that respect and are informed by cultural and spiritual values, often result in positive biodiversity outcomes;

(k) Other effective area-based conservation measures recognize, promote and make visible the roles of different governance systems and actors in biodiversity conservation; Incentives to ensure effectiveness can include a range of social and ecological benefits, including empowerment of indigenous peoples and local communities;

(l) The best available scientific information, and indigenous and local knowledge, should be used in line with international obligations and frameworks, such as the United Nations Declaration on the Rights of Indigenous Peoples, and instruments, decisions and guidelines of the Convention on Biological Diversity, for recognizing other effective area-based conservation measures, delimiting their location and size, informing management approaches and measuring performance;

(m) It is important that other effective area-based conservation measures be documented in a transparent manner to provide for a relevant evaluation of the effectiveness, functionality and relevance in the context of Target 11.

B. CRITERIA FOR IDENTIFICATION

Criterion A: Area is not currently recognized as a protected area	
Not a protected area	• The area is not currently recognized or reported as a protected area or part of a protected area; it may have been established for another function.
Criterion B: Area is governed and managed	
Geographically defined space	• Size and area are described, including in three dimensions where necessary. • Boundaries are geographically delineated.
Legitimate governance authorities	• Governance has legitimate authority and is appropriate for achieving in situ conservation of biodiversity within the area; • Governance by indigenous peoples and local communities is self-identified in accordance with national legislation; • Governance reflects the equity considerations adopted in the Convention. • Governance may be by a single authority and/or organization or through collaboration among relevant authorities and provides the ability to address threats collectively.
Managed	• Managed in ways that achieve positive and sustained outcomes for the conservation of biological diversity. • Relevant authorities and stakeholders are identified and involved in management. • A management system is in place that contributes to sustaining the *in situ* conservation of biodiversity. • Management is consistent with the ecosystem approach with the ability to adapt to achieve expected biodiversity conservation outcomes, including long-term outcomes, and including the ability to manage a new threat.

Criterion C: Achieves sustained and effective contribution to *in situ* conservation of biodiversity	
Effective	• The area achieves, or is expected to achieve, positive and sustained outcomes for the *in situ* conservation of biodiversity. • Threats, existing or reasonably anticipated ones are addressed effectively by preventing, significantly reducing or eliminating them, and by restoring degraded ecosystems. • Mechanisms, such as policy frameworks and regulations, are in place to recognize and respond to new threats. • To the extent relevant and possible, management inside and outside the other effective area-based conservation measure is integrated.
Sustained over long term	• The other effective area-based conservation measures are in place for the long term or is likely to be. • "Sustained" pertains to the continuity of governance and management and "long term" pertains to the biodiversity outcome.
***In situ* conservation of biological diversity**	• Recognition of other effective area-based conservation measures is expected to include the identification of the range of biodiversity attributes for which the site is considered important (e.g. communities of rare, threatened or endangered species, representative natural ecosystems, range restricted species, key biodiversity areas, areas providing critical ecosystem functions and services, areas for ecological connectivity).
Information and monitoring	• Identification of an other effective area-based conservation measure should, to the extent possible, document the known biodiversity attributes, as well as, where relevant, cultural and/or spiritual values, of the area and the governance and management in place as a baseline for assessing effectiveness. • A monitoring system informs management on the effectiveness of measures with respect to biodiversity, including the health of ecosystems. • Processes should be in place to evaluate the effectiveness of governance and management, including with respect to equity. • General data of the area such as boundaries, aim and governance are available information.
Criterion D: Associated ecosystem functions and services and cultural, spiritual, socio-economic and other locally relevant values	
Ecosystem functions and services	• Ecosystem functions and services are supported, including those of importance to indigenous peoples and local communities, for other effective area-based conservation measures concerning their territories, taking into account interactions and trade-offs among ecosystem functions and services, with a view to ensuring positive biodiversity outcomes and equity. • Management to enhance one particular ecosystem function and service does not impact negatively on the sites overall biological diversity.
Cultural, spiritual, socio-economic and other locally relevant values	• Governance and management measures identify, respect and uphold the cultural, spiritual, socioeconomic, and other locally relevant values of the area, where such values exist. • Governance and management measures respect and uphold the knowledge, practices and institutions that are fundamental for the *in situ* conservation of biodiversity.

C. FURTHER CONSIDERATIONS

1. Management approaches

(a) Other effective area-based conservation measures are diverse in terms of purpose, design, governance, stakeholders and management, especially as they may consider associated cultural, spiritual, socio-economic, and other locally relevant values. Accordingly, management approaches for other effective area-based conservation measures are and will be diverse;

(b) Some other effective area-based conservation measures may be established, recognized or managed to intentionally sustain *in situ* conservation of biodiversity. This purpose is either the primary management objective, or part of a set of intended management objectives;

(c) Other effective area-based conservation measures may be established, recognized or managed primarily for purposes other than *in situ* conservation of biodiversity. Thus their contribution to in situ conservation of biodiversity

is a co-benefit to their primary intended management objective or purpose. It is desirable that this contribution become a recognized objective of the management of the other effective area-based conservation measures;

(d) In all cases where *in situ* conservation of biodiversity is recognized as a management objective, specific management measures should be defined and enabled;

(e) Monitoring the effectiveness of other effective area-based conservation measures is needed. This could include: (i) baseline data, such as documentation of the biodiversity values and elements; (ii) ongoing community-based monitoring, and incorporation of traditional knowledge, where appropriate; (iii) monitoring over the long-term, including how to sustain biodiversity and improve *in situ* conservation; and (iv) monitoring of governance, stakeholder involvement and management systems that contribute to the biodiversity outcomes.

2. Role in achieving Aichi Biodiversity Target 11

(a) By definition, other effective area-based conservation measures contribute to both quantitative (i.e. the 17% and 10% coverage elements) and qualitative elements (i.e. representativity, coverage of areas important for biodiversity, connectivity and integration in wider landscapes and seascapes, management effectiveness and equity) of Aichi Biodiversity Target 11;

(b) Since other effective area-based conservation measures are diverse in terms of purpose, design, governance, stakeholders and management, they will often also contribute to other Aichi Biodiversity Targets, targets of the 2030 Agenda for Sustainable Development, and the objectives or targets of other multilateral environmental agreements.[275]

Annex IV

CONSIDERATIONS IN ACHIEVING AICHI BIODIVERSITY TARGET 11 IN MARINE AND COASTAL AREAS

These considerations re based upon discussions at the Expert Workshop on Marine Protected Areas and Other Effective Area-based Conservation Measures for achieving Aichi Biodiversity Target 11 in Marine and Coastal Areas as well as background materials prepared for the workshop (see CBD/MCB/EM/2018/1/3).

A. Unique aspects of the marine environment with relevance to area-based conservation/management measures

1. While there are similar tools and approaches for area-based conservation/management in marine and terrestrial areas, there exist a number of inherent differences between the marine and terrestrial environments that affect the application of area-based conservation measures. These unique aspects include the following:

(a) The three-dimensional nature of the marine environment (with maximum depth of almost 11 km in the deep ocean), which is heavily influenced by changes in physicochemical properties, including pressure, salinity and light;

(b) The dynamic nature of the marine environment, which is influenced by, for example, currents and tides, and facilitates connectivity among ecosystems and habitats;

(c) Nature of habitat fragmentation and connectivity in the marine environment;

(d) Lack of visibility and/or remoteness of the features being conserved;

(e) Primary production in the marine environment is often limited to the coastal zone for habitat forming species with phytoplankton distributed through the pelagic photic zone, while the standing stock in terrestrial environments is widespread and structural. There is also a higher turnover in the primary production of the marine environment, which varies with annual cycles, tied to temperature and currents;

(f) In terrestrial environments, the atmosphere is well mixed at a much broader scale, whereas mixing in marine environments can change within significantly smaller scales;

(g) Climate change impacts will affect marine and terrestrial areas very differently, as coastal areas are subject to erosion and storm surge, and protection efforts can be lost as a result of one large weather event. The pervasive impact of ocean acidification can impact the entire standing stock of primary productivity in a marine area, having knock-on effects throughout the food web;

[275] CBD/PA/EM/2018/1/INF/4 provides many examples of these contributions.

(h) Differences in resilience and recovery rates of biodiversity and ecosystems;

(i) Differences in approaches and challenges in monitoring and data collection;

(j) Potentially different legal regimes for different portions of the same marine areas (e.g., seabed and water column in marine areas beyond national jurisdiction);

(k) Frequent lack of clear ownership of specific areas in the marine environment, with multiple users and stakeholders, often with overlapping and sometimes competing interests;

(l) Frequent occurrence of multiple regulatory authorities with competence in a given area;

(m) Expectation of resource-based "outcomes": from an economic perspective, area-based conservation measures in the marine environment are expected, in many cases, to improve fishery resources and restore productivity. In terrestrial environments, the focus is largely on protecting animals without the expectation that they can be harvested once populations increase.

B. Main types of area-based conservation measures in marine and coastal areas

2. There exist a number of different types of area-based conservation/management measures that are applied in marine and coastal areas. Such measures can be categorized in different ways and are not necessarily mutually exclusive. These area-based conservation/management measures can be generally categorized as:

(a) *Marine and coastal protected areas*: Article 2 of the Convention defines a "protected area" as a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives;

(b) *Territories and areas governed and managed by indigenous peoples and local communities*: in these types of approaches, some or all of the governance and/or management authority is often ceded to the indigenous peoples and local communities, and conservation objectives are often tied to food security and access to resources for indigenous peoples and local communities;

(c) *Area-based fisheries management measures*: these are formally established, spatially defined fishery management and/or conservation measures, implemented to achieve one or more intended fishery outcomes. The outcomes of these measures are commonly related to sustainable use of the fishery. However, they can also often include protection of, or reduction of impact on, biodiversity, habitats, or ecosystem structure and function;

(d) *Other sectoral area-based management approaches*: there are a range of area-based measures applied in other sectors at different scales and for different purposes. These include, for example, Particularly Sensitive Sea Areas (areas designated by the International Maritime Organization for protection from damage by international maritime activities because of ecological, socioeconomic or scientific significance), Areas of Particular Environmental Interest (areas of the seafloor designated by the International Seabed Authority for protection from damage by deep-seabed mining because of biodiversity and ecosystem structure and function), approaches within national work on marine spatial planning, as well as conservation measures in other sectors.

C. Approaches for accelerating progress towards Aichi Biodiversity Target 11 in marine and coastal areas

3. The following approaches could accelerate national progress in achieving Aichi Biodiversity Target 11 in marine and coastal areas, recognizing that these are not exhaustive and that there are other sources of guidance on these issues:

1. Providing an adequate base of information

(a) Identify the information that is needed to address qualitative elements, including information on biodiversity, ecosystems and biogeography as well as information on current threats to biodiversity and potential threats from new and emerging pressures;

(b) Synthesize and harmonize various types of information, with free, prior and informed consent, when this applies to the knowledge of indigenous peoples as appropriate and consistent with national policies, regulations and circumstances, including information on ecologically or biologically significant marine areas (EBSAs), Key Biodiversity Areas (KBAs), vulnerable marine ecosystems (VMEs), Particularly Sensitive Sea Areas (PSSAs), Important Marine Mammal Areas (IMMAs);

(c) Develop and/or improve mechanism(s) for standardizing, exchanging and integrating information (e.g., clearing-house mechanisms, the Global Ocean Observing System and other monitoring systems).

2. Engagement of rights-holders and stakeholders

(a) Identify relevant rights-holders and stakeholders, considering livelihoods, cultural and spiritual specificities at various scales;

(b) Develop and foster communities of practice and rights-holder and stakeholder networks that will facilitate mutual learning and exchange and also support governance, monitoring, enforcement, reporting and assessment;

(c) Build a common understanding across rights-holders and stakeholders of the objectives and expected outcomes;

(d) Foster and support strong social and communication skills in managers and practitioners of marine protected areas and other effective area-based conservation measures.

3. Governance, monitoring and enforcement

(a) Identify the policies and management measures in place, including those outside of the protected/conserved areas;

(b) Make better use of new developments in open source data (e.g., satellite information) in accordance with national legislation;

(c) Build and/or strengthen global monitoring mechanisms and partnerships to reduce the overall costs of monitoring;

(d) Engage indigenous peoples and local communities, as well as respected local leaders, in monitoring and enforcement, and enhance the capacity of local communities to conduct monitoring, in accordance with national legislation;

(e) Enhance the capacity of scientists to use indigenous and local knowledge, respecting the appropriate cultural contexts;

(f) Build the capacities of managers and practitioners;

(g) Facilitate collaboration, communication and exchange of best practices among managers and practitioners;

(h) Identify gaps and barriers to effective governance and compliance;

(i) Make use of existing standards and indicators, and improve the visibility and uptake of various global and regional standards to facilitate common approaches across different scales;

(j) Recognize and support the role of indigenous peoples and local communities in governance, monitoring and enforcement, in accordance with national legislation.

4. Assessing and reporting progress in achieving the qualitative aspects of Aichi Biodiversity Target 11

Assessment

(a) Ensure the appropriate conditions are in place to facilitate assessment and analysis (e.g., legal basis, policies, conservation objectives and expertise);

(b) Develop a common understanding of what effectiveness means across stakeholder groups, in line with the objectives of the protected/conserved areas;

(c) Develop clear, reliable and measurable indicators for assessing the effectiveness of the protected/conserved areas in achieving their objectives;

(d) Develop standardized approaches for assessment across mechanisms/processes;

(e) Assess protected/conserved areas at the network scale and at the level of individual areas;

(f) Develop and foster communities of practice to support assessment;

Reporting

(a) Improve the frequency and accuracy of reporting, including by maximizing the use of existing reporting mechanisms;

(b) Enhance the visibility of reporting to encourage analysis by a range of experts across disciplines;

(c) Ensure that management is effectively informed by reporting and analysis through appropriate feedback mechanisms in order to facilitate adaptive management;

(d) Build the capacity of developing countries to undertake reporting and management effectiveness analyses;

(e) Build the political will to support timely and effective reporting, including through specific government commitments for regular and adequate reporting;

(f) Engage indigenous peoples and local communities in reporting and assessment;

(g) Develop standardized approaches to reporting across mechanisms/processes;

(h) Develop and foster communities of practice to support reporting.

4. The following approaches could accelerate national progress in achieving Aichi Target 11 in marine and coastal areas, in particular with regard to ensuring the effective integration of marine protected areas and other effective area-based conservation measures into wider landscapes and seascapes, recognizing that these are not exhaustive and that there are other sources of guidance on these issues:

(a) Identify how marine protected areas and other effective area-based conservation measures fit into and enhance landscape and seascape planning frameworks, including marine spatial planning, integrated coastal management, and systematic conservation planning;

(b) Assess what information is needed and identify the best scale(s) for collecting information, including on: existing legal and policy frameworks; ecological and biological features, and areas of specific conservation interest; uses and activities in the wider landscape and seascape and in specific areas of conservation interest, relevant stakeholders active in or with interest in the wider landscape and seascape, and potential interactions among human uses; cumulative impacts across a range of spatial scales, and responses and resilience/vulnerability of systems to increasing human use and natural forces; and connectivity within and outside the landscape and seascape;

(c) Identify available sources of data and information (including traditional and local knowledge), identify information gaps and compile available data, models and other relevant information, and develop and/or improve user-friendly, open-source, efficient and transparent tools for data visualization and integration;

(d) Recognize and understand diverse value systems;

(e) Ensure the full and effective engagement of indigenous peoples and local communities;

(f) Develop a common understanding among stakeholders regarding the objectives of integrating marine protected areas and other effective area-based conservation measures into the wider landscape and seascape;

(g) Ensure that all activities are accountable for their impacts, both within and outside marine protected areas and other effective area-based conservation measures;

(h) Develop clear, reliable, and measurable indicators for assessing the effectiveness of the marine protected areas and other effective area-based conservation measures in achieving their objectives, and for assessing the status of the wider landscape and seascape;

5. The following are approaches for managing the wider landscape and seascape in order to ensure that marine protected areas and other effective area-based conservation measures are effective, recognizing that these are not exhaustive and that there are other sources of guidance on these issues:

(a) Develop and/or enhance integrated governance and management to support landscape and seascape planning, and coordinate planning, objective-setting, and governance across geographic scales;

(b) Develop and/or refine decision-support tools for landscape and seascape planning;

(c) Ensure that relevant legislation is in place and enforced;

(d) Understand and assess the status of use and management of the wider landscape and seascape and identify areas in need of enhanced protection;

(e) Conduct threat assessments, and use a mitigation hierarchy;

(f) Evaluate the relative compatibility and/or incompatibility of existing and proposed uses, as well as the interactions and impacts of broader environmental change (e.g., climate change);

(g) Understand conflicts and displacement of livelihoods and identify relevant approaches to provide alternative livelihoods and compensation;

(h) Communicate with and involve relevant stakeholders across the wider landscape and seascape in an accessible, effective and appropriate manner;

(i) Ensure that planning and management is in line with the range of cultures and value systems in the wider landscape and seascape;

(j) Identify and engage local/national leaders and champions;

(k) Build and/or enhance capacity to support wider landscape and seascape planning.

D. Lessons from experiences in the use of various types of area-based conservation/management measures in marine and coastal areas

6. The following lessons from experiences in various types of area-based conservation/management measures in marine and coastal areas were highlighted:

(a) For various types of area-based conservation/management measures (with differences in area, duration and degree of restriction), performance in terms of protecting biodiversity can be highly variable and is often due to the ecological, socioeconomic, and governance context of the area, and the nature of implementation of the measure;

(b) Although increases in the area, duration and degree of restriction will generally increase the protection of many biodiversity components, the ecosystem impacts of the human activities displaced by the exclusions may also increase in the areas where those activities continue. Effective overall conservation planning needs to include all these considerations;

(c) Well-designed and implemented measures can be effective even if the areas are not large and with permanent restrictions, and poorly designed or implemented measures can be ineffective, regardless of their scale;

(d) Evaluation of the effectiveness of area-based conservation measures should be done on a case-by-case basis, taking into account the characteristics of the measure(s) being implemented and the context in which it is implemented, with shared responsibility;

(e) The key features of the area to consider in the evaluation of specific applications of an area-based conservation/management measure include:

(i) The ecological components of special conservation concern in both the specific area and the larger region, in relation to adjacent ecosystems and how the measure could contribute to their conservation;

(ii) The size, duration, extent of restrictions and placement of the area;

(iii) The ability of the management authority to implement the measure if adopted, and monitor and provide enforcement in the area while the measure is in place;

(iv) The potential contributions the measure could make to benefit local populations and sustainable use, in addition to conservation;

(f) Important attributes of the context in which the measure would be applied that also should be taken into account in the case-by-case evaluations include:

(i) The extent to which the measure was developed within the ecosystem approach, and is well integrated with the other measures being used;

(ii) The extent to which the measure was developed using the best scientific information and indigenous and local knowledge available, and an appropriate application of precaution;

(iii) The degree of protection that the measure offers to the biodiversity components of high priority, taking into account other actual or potential threats in the same area, and, when relevant, outside the area;

(iv) The governance processes leading to development and adoption of the measure, and their implications for compliance and cooperation with the measure.

(g) It is important that conservation outcomes are supported by strong evidence, and that flexibility is provided in order to design context-specific measures that address more than one objective rather than relying on prescriptive input requirements;

(h) It is important that adequate monitoring and evaluation frameworks are built into the design of area-based conservation/management measures in order to build reliable evidence that they are achieving conservation outcomes.

Item 25. Marine and coastal biodiversity

The following is taken from para 1-5 of the draft decision contained in recommendation 22/6 of the Subsidiary Body on Scientific, Technical and Technological Advice, except paragraph 3 and annex III which are inserted pursuant to paragraph 2 of recommendation 22/6. Annex I comes from document CBD/SBSTTA/22/7/Add.1

Ecologically or biologically significant marine areas

The Conference of the Parties,

Reaffirming decisions X/29, XI/17, XII/22and XIII/12 on ecologically or biologically significant marine areas,

Reiterating the central 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,

[Recalling that United Nations General Assembly resolution 64/71 reaffirms that the United Nations Convention on the Law of the Sea sets out the legal framework within which all activities in the oceans and seas must be carried out,]

1. *Welcomes* the scientific and technical information contained in the summary reports prepared by the Subsidiary Body on Scientific, Technical and Technological Advice at its twenty-second meeting, as contained in annex I to the present draft decision,[276] based on the reports of the two regional workshops for describing ecologically or biologically significant marine areas in the Black Sea and the Caspian Sea, and in the Baltic Sea,[277] and *requests* the Executive Secretary to include the summary reports in the EBSA repository, and to submit them to the United Nations General Assembly and its relevant processes, as well as Parties, other Governments and relevant international organizations, in line with the purpose and procedures set out in decisions X/29, XI/17, XII/22 and XIII/12;

2. *Also welcomes* the report of the Expert Workshop to Develop Options for Modifying the Description of Ecologically or Biologically Significant Marine Areas, for Describing New Areas, and for Strengthening the Scientific Credibility and Transparency of this Process,[278] held in Berlin from 5 to 8 December 2017, and [*endorses*][*takes note of*] the set of options, as contained in annex II to the present decision;

3. *Takes note* of the addendum to the terms of reference of the informal advisory group on ecologically or biologically significant marine areas (annex III of decision XIII/12) contained in annex III to the present decision;

4. *Requests* the Executive Secretary to work with Parties, other Governments and relevant organizations to facilitate implementation of this set of options through the provisioning of scientific and

[276] CBD/SBSTTA/22/7/Add.1.

[277] CBD/EBSA/WS/2017/1/3 and CBD/EBSA/WS/2018/1/4.

[278] CBD/EBSA/EM/2017/1/3.

technical support to Parties, other Governments and relevant competent intergovernmental organizations, as appropriate;

5. *Calls for* further collaboration and information-sharing among the Secretariat of the Convention on Biological Diversity, the Food and Agriculture Organization of the United Nations, the International Maritime Organization and the International Seabed Authority, as well as regional fishery bodies, regional seas conventions and actions plans, and other relevant international organizations, regarding the use of scientific information related to ecologically or biologically significant marine areas [in the application of relevant area-based management tools], with a view to contributing to the achievement of the Aichi Biodiversity Targets and relevant Sustainable Development Goals;

6. *Reaffirms* that the sharing of the outcomes of the process under the Convention for the description of areas meeting the criteria for ecologically or biologically significant marine areas does not prejudice the sovereignty, sovereign rights or jurisdiction of coastal States, or the rights of other States;

Annex I

DRAFT SUMMARY REPORT ON THE DESCRIPTION OF AREAS MEETING THE SCIENTIFIC CRITERIA FOR ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS

BACKGROUND

1. Pursuant to decision X/29, paragraph 36, decision XI/17, paragraph 12, decision XII/22, paragraph 6 and decision XIII/12, paragraph 8, the following two additional regional workshops were convened by the Executive Secretary of the Convention on Biological Diversity:

(a) Black Sea and Caspian Sea (Baku, 24 to 29 April 2017);[279]
(b) Baltic Sea (Helsinki, 19 to 24 February 2018).[280]

2. 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.

3. Pursuant to decision XI/17, paragraph 12, summaries of the results of these regional workshops are provided in tables 1 and 2 below, respectively, while full descriptions of how the areas meet the criteria for ecologically or biologically significant marine areas (EBSAs) are provided in the annexes to the respective reports of the workshops.

[279] Report contained in CBD/EBSA/WS/2017/1/3.

[280] Report contained in CBD/EBSA/WS/2018/1/4.

4. In decision X/29, paragraph 26, the Conference of Parties noted that the application of the EBSA criteria is a scientific and technical exercise, that areas found to meet the criteria may require enhanced conservation and management measures, and that this can be achieved through a variety of means, including marine spatial planning, marine protected areas, other effective area-based conservation measures and impact assessment. It also emphasized that the identification of ecologically or biologically significant areas and the selection of conservation and management measures is a matter for States and competent intergovernmental organizations, in accordance with international law, including the United Nations Convention on the Law of the Sea.[281]

Key to the tables

[281] United Nations, *Treaty Series*, vol. 1833, No. 31363.

RANKING OF EBSA CRITERIA

Relevance

H: High
M: Medium
L:Low
-:No information

CRITERIA

- **C1**: Uniqueness or rarity
- **C2**: Special importance for life-history stages of species
- **C3**: Importance for threatened, endangered or declining species and/or habitats
- **C4**: Vulnerability, fragility, sensitivity, or slow recovery
- **C5**: Biological productivity
- **C6**: Biological diversity
- **C7**: Naturalness

Table 1. Description of areas meeting the EBSA Criteria in the Black Sea and the Caspian Sea

(Details are provided in the the appendix to annex V of the report of the Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas (EBSAs) in the Black Sea and Caspian Sea (CBD/EBSA/WS/2017/1/3)

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
Black Sea							
1. Ropotamo • Location: Ropotamo is located at latitude 42.3019 ºN and longitude 27.9343 ºE. It covers 981 km^2, of which 89.9 per cent is marine (881.91 km^2). • The area comprises both a coastal and marine area along the Bulgarian coast of the Black Sea. The terrestrial part includes Ramsar sites, CORINE Biotope sites (under the European Commission) and national protected areas. The marine area stretches over 881.91 km^2 (89.9 per cent of the total area). It comprises a variety of habitats of high conservation importance, distinguished by high biodiversity, good ecological status and extensive span – including the unique European flat oyster *(Ostrea edulis)* biogenic reefs, the rare sciophilic association of the red seaweed *Phyllophora crispa* on infralittoral rock, productive communities of photophilic brown macroalgae, mussel banks on sediment, with high diversity of invertebrates and fishes, sandbanks and seagrass meadows. The marine area is an important habitat of for shad fish, providing feeding grounds and migration routes to the spawning grounds. It is significant for the protection of the three small cetacean populations that occur in the Black Sea. The area represents the largest marine protected area within the Natura 2000 ecological network in the Bulgarian Black Sea, namely the Special Area of Conservation (SAC) Ropotamo BG0001001, designated under the Habitats Directive.	H	H	H	M	-	H	H
2. **Kaliakra** • Location: The area is located in the western Black Sea coastal waters (between latitudes 43.37ºN and 45.19º N). • The area encompasses a marine Important Bird and Biodiversity Area, designated primarily for its importance as a migratory corridor for the vulnerable yelkouan shearwater (*Puffinus yelkouan)*. The yelkouan shearwater is a Mediterranean endemic with a population estimated between 46,000 and 90,000 individuals, of which some 30 to 40 per cent migrate to the Black Sea during the non-breeding season, occurring near the coast of northern Bulgaria during their migrations. The area also encompasses the non-breeding distribution of two additional vulnerable seabirds – the velvet scoter (*Melanitta fusca)* and the horned grebe (*Podiceps auritus)*. The area is also important for 17 other seabird species and has been designated a Natura 2000 Special Protection Area under the EU Birds Directive and a Special Area of Conservation under the EU Habitats Directive. The area also includes the only national marine and coastal reserve, "Kaliakra".	M	H	H	M	-	H	M
3. Vama Veche – 2 Mai Marine Reserve • Location: The Vama Veche - 2 Mai Marine Reserve is located in the southernmost part of the Romanian coastline, with a total area of 1231 km^2, all of which is marine. The geographical coordinates of the site are 28.0019777E and 43.0064000 N.	M	M	H	H	M	H	M

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
• The area features a unique combination of a wide variety of broad habitat types, considered a real mosaic condensed in a rather small area, serving as shelter and spawning area to many marine species. Benthic and pelagic life are extremely rich here, compared to the biodiversity of surrounding areas. Although small in size, it was proposed as a sanctuary for cetaceans due to its high biological diversity, and is also classified as a marine Important Bird and Biodiversity Area. The area is important for its biodiversity.							
4. Danube Delta Marine Area • Location: The area is located in front of the Danube Delta between Chilia arm in the north and Midia Cape in the south and projecting into the sea until the 20m isobath. It has a total coverage of 1217 km^2, all of which is marine. The geographical coordinates of the site are 44.0006472 N and 29.0111277 E. • This area is strongly influenced by the fresh water inflow and the sediments carried by the Danube River, creating a mixture of sedimentary habitats unique for the Romanian littoral area. These sedimentary habitats and the low salinity pelagic habitats contain a large proportion of freshwater, brackish water and marine species. It is an important nursery and feeding area for Black Sea sturgeons and shads, species that are protected under different conventions. Species in the area include: bottlenose dolphin (*Phocoena phocoena*), harbour purpoise (*Tursiops truncatus*), short-beaked common dolphin (*Delphinus delphis*), yelkouan shearwater (*Puffinus yelkouan*), beluga sturgeon (*Huso huso*), Russian sturgeon (*Acipenser gueldenstaedtii*), starry sturgeon (*Acipenser stellatus*), Danube shad (*Alosa immaculata*), Caspian shad (*Alosa tanaica*) (Danube Delta Biosphere Reserve Management Plan, 2015). The area is part of a larger protected area, Danube Delta Biosphere Reserve, which is listed as a UNESCO World Natural Heritage Site and a Ramsar site under the Ramsar Convention.	H	H	H	H	M	M	L
5. Zernov's Phyllophora Field • Location: The area is located on a wide shelf of the north-western part of the Black Sea. It has the following coordinates:45°18'25" N 30°42'26" E; 45°54'42" N 30°55'05" E; 46°01'53" N 31°10'40" E; 45°31'05" N 31°42'56" E; 45°17'41" N 31°23'20" E. • Zernov's Phyllophora Field (ZPF) is located in the northwestern part of the Black Sea at a depth from 25 to 50 metres. It is a unique natural phenomenon – a concentration of seaweed with a dominant species of red algae (Phyllophoraceae). ZPF is an important habitat for many species of invertebrates and fish. The main cluster of macrophytes is the paleobed of Dnieper River, located between the two branches of the Black Sea circular current. The dominant sediments are shell limestone, silted shell limestone, shelly silt. The state of the ZPF ecosystem is an indicator of the state of the whole northwestern part of the Black Sea ecosystem.	H	H	H	H	H	H	L
6. The Small Phyllophora Field • Location: The Small Phyllophora Field is situated in Karkinitsky Bay, the largest bay in the Black Sea, between the north-western shore of the Crimean peninsula and the coast of Kherson oblast, where it is bounded by Dzharylgach Island and Tendrovsky Spit. • Phyllophora are a group of red algae that have commercial value for harvesting and extraction of agaroids. It also forms an important source of oxygen, resulting from the photosynthesis performed by the algae. Phyllophora	H	H	H	M	L	H	M

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
fields in the north-western Black Sea have associated with them specialised faunal communities, including more than 110 species of invertebrates and 47 species of fish. Many species have evolved a reddish colouration specifically to camouflage themselves inside the algae.							
7. Balaklava • Location: The area is located at 33º 36' 12.37"E, 44º 26' 32.76"N. The area is located in coastal waters between the capes of Fiolent and Sarych, outside of Balaklava Bay, at depths between 0 and 70 m. • This area has been a hotspot of cetacean distribution in the Black Sea and has been designated as a Cetacean Critical Habitat under ACCOBAMS. It is a critically important habitat for two cetacean species, the Black Sea harbour porpoise (*Phocoena phocoena relicta*) and the Black Sea bottlenose dolphin (*Tursiops truncatus ponticus*), both of which are listed as endangered on the IUCN Red List. These two cetacean species use this area particularly for reproduction and feeding.	H	H	H	H	M	H	M
8. Yagorlytsky Bay • Location: Yagorlitsky Bay is located on the north-western Black Sea coast between the Nikolaev and Kherson regions of Ukraine. In the north it is separated from Dnieper-Bug estuary by Kinburg oblique. The bay is 26 km long, and its entrance is 15 km wide. Its geographical coordinates are: 46° 29,122' - 46° 19,867' N and 31° 47,066' - 32° 3,695' E. • Yagorlytsky Bay, owing to the peculiarities of the hydrological, hydrochemical and hydrobiological regimes, is a unique area of the north-western part of the Black Sea. The marine-terrestrial complex of Yagorlytsky Bay is characterized by a rich variety of plant and animal life, high endemism, geomorphological and landscape uniqueness and has one of the highest environmental statuses of international importance. The marine area of Yagorlytsky Bay is a part of the National Natural Park "Biloberezhia Sviatoslava" and the Black Sea Biosphere Reserve. The natural and territorial complexes of these reserves are represented not only by the aquatic complex of the bay, but wetlands, steppe, salt marshes, sandy and forest landscapes characterized by high conservation value and high diversity of biocenoses. These biotopes play an exceptional role in maintaining the species diversity of the region and the country; they are used for the reproduction and feeding of the main commercial fish species, and shallow waters are refugia for many nesting and wintering waterbirds.	H	H	H	M	L	M	H

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
9. Kuban Delta • Location: The area is located at 45°30'N, 37°48'E. The southern border of the site lies along the shore of Kurchansky Liman (estuary), embraces the Kuban Delta and reaches the Sea of Azov. To the west and north, the borderline extends along the coast of the Sea of Azov and reaches the middle point of Akhtarsky Liman. • The Kuban Delta is the second-largest delta ecosystem in the Black Sea – Sea of Azov Basin (1920 km^2). It includes more than 600 water bodies with different hydrological regimes. Many water birds utilize the coastal wetlands and estuaries of the delta as stopover areas during spring and autumn migrations. The area overlaps with a marine Important Bird and Biodiversity Area and is an important international wetland, designated as a Ramsar site. It is important for the vulnerable Dalmatian pelican (*Pelecanus crispus*). The Kuban Delta is undergoing continuous change under the influence of both natural and anthropogenic factors.	M	H	M	M	-	H	L
10. Taman Bay and the Kerch Strait • Location: Taman Bay is a shallow bay of the lagoon type situated between the Sea of Azov and the Black Sea, lying to the north of the Taman peninsula. It opens to the Kerch Strait and is considered part of the Sea of Azov. The marine area of the Kerch Straight is delimited by the line between the Cape Ahilleon on the coast of Taman Peninsula and Cape Hroni on the coast of the Kerch Peninsula in the north and by the line between Cape Panagia (mainland coast) and Cape Taqil (Kerch Peninsula coast) in the south. Taman Bay and the Kerch Straight are partly separated from each other by the spits Chushka and Tuzla. The whole marine area measures 803 km^2. • Taman Bay is a shallow semi-closed marine lagoon with no constant source of river inflow. It is a unique sea area in the Russian Black Sea and Sea of Azov coast, with primary production depending on seagrasses. Biomass of bottom vegetation varies strongly and can exceed 5000 g/m^2 (wet weight), while the macrozoobenthos biomass is 1500 g/m^2. Up to 1,000,000 birds stop on the bay during seasonal migration. The Taman Bay wetland is a wintering area of many species of waterfowl. The site has a significant value as a place of reproduction of waterbird species listed in the Red Book of the Russian Federation and Krasnodar Province. The ecosystem of the Bay shows some resilience and maintains a quasi-stable regime. The adjacent Kerch Strait is an important migratory pathway for marine life, including various fish species as well as two cetacean species, harbour porpoises (*Phocoena phocoena relicta*) and bottlenose dolphins (*Tursiops truncates ponticus*).	H	H	M	M	H	L	L
11. Northern Part of the Caucasian Black Sea Coast • Location: The area includes the coastal zone on the northeastern Black Sea coast (2562 km^2). Its western boundary goes from Volna Village and crosses the shore west of the river mouth at Arkhipo-Osipovka Village (45º 6'N, 36º 43" E to about 44º 30'N, 36º 51'E). The southern boundary is designated by the 200 m isobath. The northern boundary generally follows the shoreline and also includes Bugazskiy, Kiziltashskiy and Vitjazevskiy limans (lagoons), but does not include the Novorossiysk (Tsemes) Bay. • The area is part of the north-eastern Black Sea shelf and slope, which is narrow in the east and relatively broad in the west, to the south of the Kerch Strait. It also includes large shallow lagoons that are remnants of the Paleo-Kuban Delta. The area provides good conditions for macrophyte development and is highly productive (although	M	H	M	H	M	H	M

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
not maximally productive) at the regional scale. The area contains some unique and rare features, such as peculiar carbonate banks, but in many other respects it is more representative than distinct. It is important to the life histories of several marine invertebrates and fish species, including the now declining Black Sea turbot, anchovy and horse mackerel. It is also important for endangered species as a migration and foraging area of sturgeons and cetaceans. The biological diversity is high owing to a diversity of biotopes, including sandy spits and shallow sandy flats, shallow shelf carbonate banks, clay reefs, sandy, muddy and gravel biotopes of the shelf, ridged submerged benches and steep rocks with rich algal communities, biotopes of underwater landfall and biotopes of saltwater lagoons.							
12. Kolkheti Marine Area • Location: The area extends 502 km^2 between Tikori River and the mouth of the Rioni River (inclusive), within the following latitudes and longitudes, respectively: 42.3688965 and 41.5923238; 42.3678906 and 41.3485938; 42.1492143 and 41.3730120; 42.1781462 and 41.6434212. • This area is characterized by a high density and relative richness of zooplankton species and bivalves. It is a preferred habitat for turbot and flounder species. In winter and spring, large aggregations of anchovies (*Engraulis encrasicolus*) use the area as a wintering and spawning area. It is also a habitat and spawning area of the endangered Acipenseridae species and serves as wintering ground for large numbers of migratory birds and Black Sea cetaceans. The area is an important feeding and nursery ground for cetacean species (*Tursiops truncatus ponticus, Delphinus delphis ponticus* and *Phocoena phocoena relicta*) all year-round.	H	H	H	H	H	H	M
13. Sarpi • Location: The area is located at the following latitudes and longitudes, respectively: 41.5447181 and 41.5606554; 41.5266607 and 41.5485533. • The area covers sea rocks and stony coast. It is the largest rocky habitat on the Georgian coast. The field of marine algae *Cystoseira barbata* and *Ceramium rubrum* located there provide shelter for many fish and invertebrate species. Mussels (*Mytilus galloprovincialis*) and other bivalves attach themselves to the sea rocks. The rocky area provides shelter and feeding grounds for different species of fish. Some of them, such as peacock wrasse (*Symphodus tinca*), are more common near Sarpi than in any other area in the region. The area overlaps with a non-breeding area of global importance for the yelkouan shearwater (*Puffinus yelkouan*). It is also located in proximity to colonies of the Mediterranean endemic subspecies of European shag (*Phalacrocorax aristotelis desmarestii*), thus being potentially important for this subspecies during the breeding season. Black Sea cetaceans use the area for feeding and possibly for breeding.	M	H	M	H	-	H	M
14. Artvin-Arhavi • Location: The coordinates of the area are: 41 21.48' N- 41 18.824' E, 41 22.116' N- 41 18.824' E, 41 22.659' N- 41 20.216' E, 41 22.14' N- 41 20.216' E. • The area is mainly important for marine pelagic and demersal fish species and cetacean species. In terms of birds, the area overlaps with a marine Important Bird and Biodiversity Area; this IBA is of regional importance for two	M	H	H	M	-	M	H

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
seabird species: velvet scoter *Melanitta fusca* and Caspian gull *Larus cachinnans*. A third species is also known to occur: mew gull *Larus canus*. Harbour porpoises have been found all along the Turkish Black Sea coast and are especially abundant along the eastern coast, where several rivers enter the Black Sea.							
15. Trabzon-Sürmene • Location: This area is located between 40 54.749' N - 40 08.364' E, 40 54.794' N - 40 10.404' E, 40 55.183' N- 40 10.404' E and 40 55.183' N-40 08.364' E. • This area is very important for marine pelagic and demersal fish species. It is an important fish breeding, reproduction and feeding area for demersal and pelagic fish species. It is a bioreserve area that is closed to fisheries. It has a sandy, heel-shaped rocky structure, with an abundance of underwater rocks. The region is also the natural habitat of seabream—the only such spot in the Black Sea. Biological diversity of this part of the Black Sea is considerably high, such that harbour porpoises are found all along the Turkish Black Sea coast and are especially abundant along the eastern coast, where several rivers enter the Black Sea. In terms of birds the area overlaps with a marine Important Bird and Biodiversity Area (IBA) of regional importance for two seabird species: velvet scoter (*Melanitta fusca*) and Caspian gull (*Larus cachinnans*). A third species, mew gull (*Larus canus*), is also known to occur.	M	H	H	H	M	M	L
16. Trabzon-Arsin • Location: The area is located between the following coordinates: 40 57.769' N- 39 58.532' E, 40 58.123' N- 39 58.532' E, 40 58.123' N- 39 59.528' E and 40 57.849' N- 39 59.528' E. • This area is very important for habitat, reproduction and breeding of some rare marine pelagic and demersal species, such as three species of dolphins, *Psetta maxima* (turbot) and Zostera meadows. Several other fish species (e.g., red mullet *Mullus barbatus*, grey mullet Mugil species) are also abundant. The land side of this area is an official bioreserve site. Many of the fish species, which do not migrate due to the rocky nature of the coastal part of the region, are located in a rocky and sandy environment and have a rich ecosystem for breeding and feeding. This is a reserve area that is closed to fishing. The area has a sandy, heel-shaped rocky structure with the richest benthic species diversity in the region due to the presence of underwater rocks and wide, flat, sandy areas. Moreover, harbour porpoises have been found all along the Turkish Black Sea coast, and are especially abundant on the east coast, where several rivers enter the Black Sea. Also, the primary overwintering area of harbour porpoises is the south-eastern Black Sea. The area overlaps with a marine Important Bird and Biodiversity Area (IBA) that is regionally important for two seabird species: velvet scoter (*Melanitta fusca*) and Caspian gull (*Larus cachinnans*). A third species, mew gull (*Larus canus*), is also known to occur.	M	H	H	M	M	M	M

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
17. Giresun – Tirebolu • Location:The area is located between the following coordinates: 40 59.23' N – 38 46.415' E, 41 0.241' N- 38 46.415' E, 41 0.489' N –38 48.48' E and 41 0.24' N - 38 48.48' E. • This area is very important for marine pelagic and demersal fish species, especially turbot *(Psetta maxima*), red mullet *(Mullus barbatus*), grey mullet *(Mugil* spp.), and for seagrass *(Zostera*). This area is an underwater canyon area, which provides reproduction and breeding grounds for demersal and pelagic fish species. Biological diversity of this part of the Black Sea is very high, such that the area overlaps with a marine Important Bird and Biodiversity Area, primarily designated for its importance as wintering area for the vulnerable yelkouan shearwater (*Puffinus yelkouan*). The yelkouan shearwater is a Mediterranean endemic, and some 30 to 40 per cent of the population migrate to the Black Sea during the non-breeding season. The importance of the area for this species was confirmed by studies based on tracking birds from their colonies, and also from studies of habitat suitability. Studies conducted on the crustaceans of sandy muddy biotopes on the seabeds of central and eastern Black Sea indicate that species diversity is relatively high in shallow waters (<50 m) and that diversity decreases in a direct correlation with increasing depth.	M	H	M	M	-	M	M
Caspian Sea							
18. Pre-estuarine area of the Ural River in the Caspian Sea • Location: The lower estuary area of the Ural River occupies the brackish shallow water area of the Caspian Sea near the confluence of the Ural River (Zhayik) into the sea. The lower estuary space is defined at an isobath of 3 metres. • The pre-estuarine area of the Ural River (Zhayik River) is located in the northern part of the Caspian Sea, adjacent to the mouth of the Ural River. This is an important area for the reproduction of anadromous (sturgeon) and freshwater (carp, perch) fishes. Here in the spring period, pre-spawn concentrations of all numerous fish species are concentrated, which then rush to spawn upstream of the Ural River in spawning grounds located in its lower and middle reaches, and after spawning, the producers and young fish migrate to the lower estuary space (brackish shallow part of the sea) to feed. There are small remaining sturgeon stocks (e.g., Russian sturgeon, beluga, stellate sturgeon, thorn).	H	H	H	M	M	H	M

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
19. Komsomol Bay • Location: Komsomol Bay, including the islands of Durnev, is located to the west of the Dead Kultuk Bay in the northeastern Caspian Sea (45.38 N, 52.35 E). • The Caspian seal (Phoca caspica, Gmelin, 1788), an endemic, transboundary species, is the only mammal inhabiting the Caspian Sea. In 2008, IUCN changed the status of the Caspian seal from "vulnerable" to "endangered". The results of research on the distribution, abundance and structure of the population of the Caspian seal show that the rookeries on the Durnev islands are important for the conservation of the population.	H	H	H	H	-	-	L
20. Caspian Seal Breeding Grounds • Location: The location of the area is defined by the extent of ice coverage during winter months, as the breeding season for seals takes place from January until early March. This area takes into account the dynamic nature of ice conditions and distribution with and among years. Therefore, the shape of the area is defined by the overall observed extent of ice coverage during the few months of the winter from historical records and the observed distributions of breeding seals under different ice conditions. The Caspian seal (*Pusa caspica*) is an endemic, ice-breeding, trans-boundary species of marine mammal inhabiting the landlocked Caspian Sea. Caspian seals use this winter ice field between January and March each year for birthing and nursing pups. The area is also important for all species of Caspian sturgeons.	H	H	H	H	-	-	M
21. Kendirli Bay • Location: Kendirli Bay is located in the deep water zone of the central Caspian, in the eastern part of the Kazakh Gulf, which is 23 km long, with a maximum width of 1.5 km in the middle. The spit is connected to the mainland in the southeast and extends in a north-westerly direction, forming Kendirli Bay. In the north-western extremity, the spit has a small cove. The north-western part of the bay has an island, the area of which can reach 0.1 km^2, but which can be split into several smaller islands, depending on the wind-surge phenomena. • The Caspian seal (*Phoca caspica*) is endemic to the Caspian Sea and is also its only mammal. In 2008, IUCN changed the status of the Caspian seal from "vulnerable" to "endangered". In contrast to habitats in the northern Caspian, on the islands at the tip of the Kendirli spit in the Gulf of Kazakhstan, wind-surge phenomena do not have much effect on the hauling rookery, due to the fact that the islands are located in the deep-sea zone of the middle Caspian. This creates ideal conditions for the formation of rookeries on the islands.	H	H	H	H	-	M	M

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
22. Karabogazgol Strait • Location: The Kara-Bogaz-Gol Strait is located in the eastern Caspian Sea, between the Caspian Sea and the Kara-Bogas-Gol Gulf. This area measures 4,108 km^2, with its centre at 41.093621N, 52.915339E. • The Karabogazgol Strait connects the Caspian Sea with the Karabogazgol Gulf. The area forms a unique natural hydro-geological complex. There are no rivers that drain into the lagoon. This hydrological system is heavily influenced by the dynamics of the Caspian Sea. All components of the system are very dynamic, and their parameters are defined by sea-level dynamics. All biodiversity in the broader area is concentrated mainly in the strait, including bacteria, lower plants, invertebrates, birds (the majority of which are migrant species). Some species of fish and birds present in the area are included in the Red Book of Turkmenistan.	H	M	L	H	H	H	M
23. Turkmenbashi Gulf • Location: Turkmenbashi Gulf is on the east coast of the Caspian Sea. It is connected on the northwest to Sojmonova Bay. Itscoordinates are: centroid 39.792556N, 53.310004E. The total area of this site is 2203 km^2. • As of 1968, Turkmenbashi Gulf, including Balhan, Northern-Cheleken, Mihajlovsky and other small bays, which is the site of mass winterings and migrations of waterbirds, has been part of Krasnovodsk (now known as Hazar) State Nature Reserve. Hazar State Nature Reserve is the main part of Turkmenbashi Gulf. It is a Ramsar Site and an Important Bird and Biodiversity Area (IBA, BirdLife International). Its biodiversity includes invertebrates and vertebrates (fishes, birds, mammals), including species listed in the Red Data Book of Turkmenistan.	M	H	H	H	H	M	M
24. Turkmen Aylagy • Location: Turkmen Aylagy is bordered in the north by the Cheleken Peninsula and in the west by Ogurdzhaly Island. The site covers the water area of the Turkmen Gulf, from Ogurdzhaly Island (inclusive) in the west, to South Cheleken Bay, with a total area of 3708 km^2. Ogurdzhaly Island is a sandy strip, 2 km wide, that extends 40 km in a north-south direction, with an area of 6 000 ha. The area is geographically centred at 39.035352N, 53.439243E. • Turkmen Aylagy has a unique complex of biodiversity, especially birds, fishes and two species of mammals. It is affected by seasonal and annual fluctuations in the level of the Caspian Sea and by movements of Dardzhakum sands. During periods of sea level rise, there are favourable conditions for protection, fodder nesting and wintering of birds in bays, but extensive saline soils are formed in their place during periods of sea-level drop. Prevailing depths of the Turkmen Aylagy range from 3-4 m in the east to 9-11 m in the centre. The water in the area has a higher salt content than the Caspian Sea, as the rivers do not run into it.	-	H	H	H	-	M	H

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
25. Miankaleh-Esenguly • Location: This area is located in south-eastern corner of the Caspian Sea and covers from the marine and coastal waters of Ekerem-Esenguly in Turkmenistan to Gomishan Lagoon, Gorgan Bay, Miankaleh Peninsula and the Lapoo-Zaghmarz Ab-Bandans in Iran. The area is located in the south-eastern corner of the Caspian Sea in the marine and coastal areas. • The area is a potential candidate Seal Special Protected Area (SSPA), under the Caspian Environment Programme. The area is also one of the most important foraging and spawning grounds for all five critically endangered species of sturgeon, including *Acipenser gueldenstaedtii, A. nudiventris, A. persicus, A. stellatus* and *Huso huso*. The Miankaleh-Esenguly area is extremely important for both wintering and passage of waterfowl and holds one of the highest number of wintering birds in the entire south Caspian.	H	H	H	H	-	H	H
26. Sefidroud Delta • Location: The area is located in the South Caspian lowlands and encompasses the largest delta in the South Caspian region (about 1,350 ha) and Bandar Kiashahr Lagoon, one of the oldest lagoons in the south Caspian Sea. It is located in the south Caspian lowlands and encompasses the largest river delta in the south Caspian region. • This area is a significant foraging and spawning ground for a wide variety of fish species, including five critically endangered sturgeon species: *Acipenser gueldenstaedtii, A. stellatus, A. nudiventris, A. persicus* and *Huso huso*. The Sefidroud Delta is an important migratory and wintering ground for a wide variety of migratory waterfowl, regularly supporting more than 100,000 waterbirds and more than 1% of the regional populations of several waterbird species.	H	H	H	M	L	H	M
27. Anzali Wetlands Complex • Location: Anzali wetlands complex is located on the south-western shore of the Caspian Sea, close to the city of Bandar-e-Anzali. • The area is a good example of a natural lagoon and wetland ecosystem characteristic of the south Caspian lowlands. This area supports more than 100,000 wintering waterbirds, and more than 1 per cent of the regional populations of several waterbird species. The area is also a significant site for preserving plant and animal genetic resources and diversity.	H	H	H	M	L	H	L

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
28. Gizilagach BayComplex • Location: The Gizilagach Bay Complex is located in the south-western part of the Caspian Sea along the coast of Azerbaijan. The area covers the entire water area of the Greater Gizilagach Bay, the northern part of the Lesser Gizilagach Bay, the western part of the Kura spit, the steppe in the north and the north-west of the Greater Gizilagach Bay, and the base or the northern part of the Sara Peninsula. The **Gizilagach Bay** Complex comprises the Greater Gizilagach Reserve, covering an area of 88,360 hectares, and the adjacent Lesser Gizilagach Bay Reserve, the area of which is 10,700 hectares, located on the south-western coast of the Caspian Sea. • Azerbaijan places third in the western Palearctic for numbers of wintering waterbirds (more 1.0 million) as part of the Caspian-West Siberian-East African Flyway. The area contains one of the most important wetlands for wintering and breeding waterbirds in the western Palearctic. The "Ghizil-Agaj" Bay was recognized as a Ramsar Wetland of International Importance in 1975. The area's fauna includes 47 species of fish, about 273 species of birds, 5 amphibia, 15 reptiles and 26 species of mammals. The local avifauna is mainly waterbirds. The area is located along the migration routes on the western coast of the Caspian Sea, and large flocks of migratory birds feed and rest in the area. It was reported that in previous years up to 10 million birds wintered in the complex and its surrounding areas.	H	H	H	H	H	H	M
29. Kura Delta • Location: The area is located where the Kura River flows into the Caspian Sea in the Neftechalinsky region, 10 km to the east and southeast of the city of Neftechal. The area measures about 15 000 hectares. The altitude above sea level is about 28 m. The geographical coordinates of the near-shore space are 39°16 '- 39 °25' N; 49 °19 '- 49 °28' E. • The Kura River area of the Caspian Sea is an area of foraging, wintering, spawning migrations and reproduction of all species of the Caspian sturgeon family except for the sterlets. It is an especially valuable area for the Persian sturgeon and pinch, as it is associated with the Kura River. In addition, the area is home to extensive wetlands with dense reed vegetation, a network of dams and a large island that is an important wintering and nesting site for some bird species and the area is especially important as a temporary resting place for a large number of birds during their flight. During the migration period, the number of waterbirds in one record reaches 75,000 individuals. Many curly and pink pelicans, small cormorants, spoonbills, sultan bird and other rare species have been recorded at the site.	H	H	H	H	M	H	L

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
30. Samur - Yalama • Location: Samur-Yalama covers an area of 1,250 km^2 along both sides of the Russian-Azerbaijani border, following the flow of the Samur River, which eventually meets the Caspian Sea. The site includes the mouth of the Samur River and a number of smaller rivers that start in the mountains of the Caucasus Range; its marine area consists of the 200 m isobath. • The area includes the deepest nearshore area in the Caspian Sea, with a steep underwater slope. The area is highly important for the life history stages of at least 20 species of fish, and it is a critically important migration corridor and feeding ground for both juveniles and adults. It is also an important bird area, serving as a flyway segment and critical stopover and nesting area for waterfowl. It is also highly significant for all five species of critically endangered sturgeon species (IUCN Red List) and several other protected species of fishes and birds.	M	H	H	M	M	H	M
31. Kizlyar Bay • Location: The area covers the northwest coast of the Caspian Sea from the Volga Delta to the Agrakhan Peninsula (inclusive) and the islands of Tyuleniy and Chechen. The area is the most northerly sea bay on the western coast of the Caspian Sea. • This area is of key importance for seasonal migrations of waterfowl and waterbirds moving from western Siberia and Eastern Europe, flying through, or wintering on this coast. Species composition of birds is represented by 250 species, most of them waterfowl. This is a key area for rare species of birds, such as the Dalmatian pelican (*Pelecanus crispus*), as well as many common species (e.g., coot, gray goose, and various species of ducks). The area serves as a breeding, foraging and migration ground for more than 60 species of fish. Kizlyar Bay is an important habitat for endangered species, such as sturgeons (*Huso huso, Acipenser gueldenstaedtii, Acipenser stellatus*). The islands that are located within the area are sites of seasonal aggregation of the Caspian seal (*Phoca caspica*).	M	H	H	M	H	M	M
32. Malyi Zhemchyzhnyi ("Small Pearl") Island • Location: This region is located in the central part of the northern Caspian, 25 km to the southeast of the island of Chistaya Banka. • Malyi Zhemchyzhnyi Island is the largest nesting site for Charadriiform birds, including Pallas's gull (*Larus ichthyaetus*) and the Caspian tern (*Sterna caspia*), listed in the Red Book of the Russian Federation in the northern Caspian. In the spring, large concentrations (up to several thousand individuals) of the Caspian seal (*Phoca caspica*) inhabit the island. The adjacent water area is an important place for feeding fish, especially juvenile sturgeons (*Huso huso, Acipenser gueldenstaedtii, Acipenser stellatus*).	H	H	H	M	H	L	M

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
33. Pre-estuarine Area of the Volga River • Location: The area covers the lower zone of the Volga Delta and the Volga pre-estuarine zone within the borders. The northern boundary coincides with the northern boundary of the Volga Delta wetlands and passes along the border of the reed belt to the Ganyushkinsky channel. The area covers the sea to the 5 m isobath. • The area is part of the Volga Delta, a unique natural ecological system and the largest delta in Europe. The Volga Delta is located in the Caspian lowland, and its elevation ranges from -24 to -27 m. The area plays an exceptional role in maintaining populations of some globally significant species, primarily waterfowl and other aquatic and semi-aquatic birds. It serves as an important node of two bird flyways, extending from west Siberia to Eastern Europe. More than 300 species of birds have been recorded in the area. This is a key area for rare bird species, such as the Siberian crane (*Leucogeranus leucogeranus*), white-tailed eagle (*Haliaeetus albicilla*) and Dalmatian pelican (*Pelecanus crispus*), as well as many common species (e.g., coots, gray goose, ducks). The area serves as a breeding ground, foraging and migration habitat for more than 60 species of fish. There is an extremely high density of ichthyofauna during mass spawning migrations, when significant populations of semi-anadromous and anadromous fish species of the northern Caspian enter the delta. The area is home to spawning migrations of endangered species such as sturgeons (*Huso huso, Acipenser gueldenstaedtii, Acipenser stellatus, Acipenser persicus, Acipenser nudiventris*) and Caspian lamprey (*Caspiomyzon wagneri*).	H	H	H	M	H	M	M

Table 2. Description of areas meeting the EBSA criteria in the Baltic Sea

(Details are provided in the appendix to annex VII of the report of the Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas (EBSAs) in the Baltic Sea, (CBD/EBSA/WS/2018/1/4)

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
1. Northern Bothnian Bay • Location: The area encompasses the northernmost part of the Bothnian Bay. The total coverage of the area is 8963 km^2, and its sea area is 8297 km^2. • The Bothnian Bay forms the northernmost part of the Baltic Sea. It is the most brackish part of the Baltic, greatly affected by the combined river discharge from four big rivers and a catchment area covering most of the Finnish and Swedish Lapland. The sea area is shallow, and the seabed consists mostly of sand. The area displays Arctic conditions; in winter the whole area is covered with sea ice (for 5-7 months), which functions as the reproductive habitat for the grey seal (*Haliochoerus grypus*) and is a prerequisite nesting habitat for the ringed seal (*Pusa hispida botnica*). In summer the area is productive and due to the turbidity from the river discharge the primary production is typically limited to a narrow photic zone (between a depth of 1 and 5 metres). Due to the extreme brackish water the number of marine species is low, yet the number of endemic and threatened species is high, as the area is the final refuge for species retreating northwards after the last glaciation (10,000 BP). It is an important reproductive area for coastal fish and an important gathering area for several anadromous fish species. The Torne, Kalix and Råneå rivers, which all discharge into the northern part of the area, are spawning rivers of regional importance for the Baltic population of the Atlantic salmon (Salmo salar).	H	H	H	L	M	M	M
2. Kvarken Archipelago • Location: The Kvarken Archipelago is located in the Gulf of Bothnia, in the northern part of the Baltic Sea. The archipelago's total area is 10,364 km^2, and its sea area is 9,638 km^2. The mean depth of the area is 22 m, with the deepest point in the open sea being 133 m. • *The Kvarken Archipelago consists of a narrow (26 km) strait between Sweden and Finland, with a multitude of islands and skerries on both sides. The Kvarken also divides the Gulf of Bothnia, forming a shallow underwater threshold (max. depth 26 m) between the Bothnian Bay in the north and the Bothnian Sea in the south. The archipelago encompasses approximately 10,000 islands and skerries. The area is characterized by its unique landscape, consisting of thousands of different moraine formations formed during the last glaciation (10.000 – 8.000 BP). The area is affected by continuous change. Ongoing isostatic land uplift (at a rate of 8 mm per year) continuously affects all biotopes and habitats, constantly bringing new areas up into the photic zone. The Kvarken Archipelago is a transition zone where the dominating and habitat-forming marine fauna and flora rapidly change from freshwater species into marine species from north to south. The relative latitudinal change in salinity is the highest in the Baltic Sea. A continuous mixing of water further adds ecological and evolutionary pressure to the ecosystem. The shallowness and the substrate diversity, combined with up to 20 hours of sunlight in summer, make*	H	H	H	M	M	H	M

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
the area highly productive and important for a large number of fish and bird species.							
3. Åland Sea, Åland Islands and the Archipelago Sea of Finland • Location: The area is situated in the northern Baltic Sea and forms the border between the Baltic proper and the Gulf of Bothnia. It extends from the Swedish coast in the west across the Åland Islands to the Finnish Archipelago Sea and Hanko Peninsula in the east. The area is about 375 km in width and 100 km long (in W-E and N-S direction, respectively). The total coverage of the area is 18,524 km^2. • The area contains some of the most geomorphologically, biologically and ecologically variable marine environments in the Baltic Sea, and perhaps in the world. The area stretches from Åland Sea, across the Åland Islands and the Archipelago Sea to Hanko Peninsula in southwestern Finland. It is characterized by an extremely mosaic and extensive archipelago that ranges from shallow and sheltered inner archipelago areas, through middle archipelago, with larger islands, to wave-exposed outer archipelago consisting of thousands of small islands and skerries. The Åland Sea, in contrast, is an open sea area with almost oceanic conditions and has the second-deepest trench in the Baltic Sea, 300 m. The trench is also the deepest oxygenated area in the Baltic Sea. Due to its low salinity (0 to 7 psu), the species composition in the area is a mixture of freshwater, brackish and marine organisms, with a high diversity of aquatic vascular plants and charophytes, in particular. The area contains hundreds of lagoons, narrow inlets, shallow bays, estuaries and wetlands, which are important areas for fish and birdlife. The benthic biomass in the shallow areas is the highest in the northern Baltic Sea. The area also supports important populations of the ringed seal (*Pusa hispida botnica*) and grey seal (*Halichoerus grypus*). Harbor porpoise (*Phocoena phocoena*) visit the area regularly.	H	H	M	M	H	M	M
4. Eastern Gulf of Finland • *Location: The area is situated in the north-eastern and eastern Gulf of Finland, in the northern Baltic Sea. It extends 247km east-west and 122km north-south. The total coverage of the area is 13,411 km^2.* • The area is a relatively shallow (maximum depth 80 m) archipelago and open sea area in the eastern Gulf of Finland, northeastern Baltic Sea. It is characterized by hundreds of small islands and skerries, coastal lagoons and boreal narrow inlets, as well as a large area of open sea. The area's geomorphology shows clear signs from the last glaciation, such as end moraines, sandy beaches, rocky islands and clusters of erratic blocks. Due to the low salinity (0 to 5 permilles in the sea surface layer), the species composition is a mixture of freshwater and marine organisms, and the diversity of aquatic plants in particular is high. Many marine species, including habitat-forming key species, such as bladderwrack (*Fucus vesiculosus*) and blue mussel (*Mytilus trossulus*), live at the limits of their geographical distribution, making them vulnerable to human disturbance and the effects of climate change. The area has a rich birdlife and supports one of the most endangered populations of the ringed seal (*Pusa hispida botnica*) in the Baltic Sea.	M	H	H	M	M	M	M

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
5. Inner Sea of West Estonian Archipelago • *Location: The area is located in the inner sea area of the West Estonian Archipelago in the north-east Baltic Sea.* • This area forms a unique ecosystem in the north-eastern part of the Baltic Sea. Geologically, the area is a glacial formation composed of variable substrates of glacial moraine. It is very shallow, with mean depth less than 4m, and most of the seafloor is located in the photic zone. The presence of a salinity gradient from freshwater conditions inside the easternmost parts of Matsalu Bay to up to 6-7 psu in the western part in Soela strait and an extensive dynamic hydrological front area creates unique conditions for local and migratory species. High benthic productivity due to frontal conditions and freshwater runoff makes this a very important feeding area for migrating species. Unique local hydromorphological conditions enable the unique existence of a large loose, free-floating red algae community of *Furcellaria lumbricalis* in this area. Due to the presence of numerous uninhabited islets and specific ice conditions, this area is important for two seal species. The area is home to a large number of migratory and other species, and is designated as an Important Bird and Biodiversity Area (IBA).	H	H	M	L	M	H	M
6. Southeastern Baltic Sea Shallows • *Location:* The Southeastern Baltic Sea shallows encompasses several geomorphologically distinct areas, including the Klaipeda-Ventspils plateau in the north, the Curonian-Sambian plateau in the south, the Klaipeda bank in the northwestern part of the area as well as the largest lagoons in the eastern Baltic Sea, Curonian and Vistula, each separated by a narrow spit. The area extends 11,626 km^2. • The Southeastern Baltic Sea shallows encompasses several geomorphologically distinct areas, including the Klaipeda-Ventspils plateau in the north, the Curonian-Sambian plateau in the south, the Klaipeda bank in the northwestern part of the area as well as the largest lagoons in the eastern Baltic Sea, Curonian and Vistula, each separated by a narrow spit. Driven by complex geomorphological structures, the area is a hotspot of biodiversity both in coastal and offshore waters. The shallow water area is one of the most important habitats for benthic communities. Its underwater reefs sustain coastal benthic communities, a high biodiversity of invertebrates, fishes and wintering birds. Reefs are also used as spawning and nursery grounds by commercially important fish species, such as sprat, herring, turbot and flounder. The offshore bank serves as a refuge for mobile species from short-term hypoxia in the deeper parts of the Gotland basin. The coastline is an important stopover site for waterbirds. During particularly severe winters, the abundance of some species of wintering seabirds (e.g. long-tailed duck Clangula hyemalis, velvet scoter Melanitta fusca and red-throated diver Gavia stellata) may increase by several or several tens of times. Lagoons exist as large and multiple freshwater ichthyofauna complexes and permanent or temporary habitats for migratory and marine fish species. The Curonian Lagoon is an important regional spawning and recovery area for twaite shad (Allosa fallax).	H	H	M	M	M	H	M
7. Southern Gotland Harbour Porpoise Area • *Location: The area is located between the coast and the islands of Gotland and Öland, stretching to the south to include three of the four large offshore banks in the Baltic Sea (latitude between 58.1 N and 55.4 N, longitude between 14.68 E and 19.55 E). The total area is 29 242 km^2.*	H	H	H	H	M	M	M

Location and brief description of areas	C1	C2	C3	C4	C5	C6	C7
	For key to criteria, see page 2						
• The area covers the core distribution area of the critically endangered harbour porpoise (*Phocoena phocoena*) subpopulation in the Baltic Sea around the islands of Öland and Gotland and serves as a key breeding area for the population. Midsjöbankarna and Hoburg's bank is the most important area for the Baltic harbour porpoise. The population was estimated at 497 individuals and the population's numbers have declined drastically since the mid-20th century. The area is also home to the vulnerable Kalmarsund subpopulation of the harbour seal (*Phoca vitulina vitulina*) and is the main wintering area for the endangered long-tailed duck (*Clangula hyemalis*). The area represents a variety of geologic and morphologic features, and contains three of the four large offshore banks in the Baltic Sea, which form a unique high-energy environment. These shallow areas create conditions for high productivity of filter-feeding animals that form the food base for flatfish and large amounts of wintering birds.							
8. Fehmarn Belt • Location: The area covers 1652 km² in the south-western part of the Baltic Sea in the HELCOM sub-basins Kiel Bay and Bay of Mecklenburg. • Fehmarn Belt is the main pathway of water exchange between the Baltic Sea and the Atlantic Ocean, carrying 70-75 per cent of the water masses. The area is important for migratory aquatic species, such as the western population of the harbour porpoise. It is also of high regional importance for migratory and wintering waterfowl. The combination of permanent exposure to saline waters and the complexity of bottom structures leads to a complex mosaic of benthic biotopes inhabited by a variety of species-rich communities. Besides the presence of several endangered and protected habitats and benthic species, it is regionally important for one critically endangered biotope dominated by the ocean quahog, one of the longest-lived species in the world.	H	H	H	M	L	H	M
9. Fladen and Stora and Lilla Middelgrund • Location: The area is located approximately between latitudes 56º30'N and 57º14'N and longitudes between 11º40'E and 12º0'E, and encompasses the central part of the Kattegat (a shallow sea area between Sweden and Denmark). The total coverage of the area is 615 km^2. • The Fladen and Stora and Lilla Middelgrund are three large offshore banks in the Kattegat. The banks are characterized by large topographic variation formed by boulders and rocks. The area also includes sandbanks and shell gravel, which increase its habitat diversity. The shallowest parts of the area are approximately 6 m deep and are densely covered by kelp forest, which is associated with high diversity of fish and invertebrate species. Unique habitats like bubbling reefs and maerl beds occur in the area, as well as extensive horse mussel (*Modiolus modiolus*) beds. The area hosts a high diversity of fish, invertebrates and algae as well as a large quantity of rare and endangered species. The banks are of international importance for seabirds, and moreover, high densities of harbor porpoises have been recorded here. In addition, the area is important as spawning ground for a number of fish species.	H	H	H	H	M	H	M

Annex II

OPTIONS FOR MODIFYING THE DESCRIPTION OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS, FOR DESCRIBING NEW AREAS, AND FOR STRENGTHENING THE SCIENTIFIC CREDIBILITY AND TRANSPARENCY OF THIS PROCESS

I. MODIFICATION OF EBSA DESCRIPTIONS

A. Introduction

1. The description of areas meeting the criteria for an ecologically or biologically significant marine area (EBSA)[282] comprises both a textual description and a polygon of the area, as contained in the relevant decisions of the Conference of the Parties to the Convention, including decisions XI/17, XII/22, and XIII/12, and included in the EBSA repository.

2. Modifications of EBSA descriptions constitute modifications affecting the textual descriptions of the areas meeting the EBSA criteria, as contained in the decisions noted above, and/or the polygons of the areas contained in the EBSA repository. The descriptions contained in the EBSA repository, as requested by the Conference of the Parties in decisions XI/17, XII/22 and XIII/12, can be modified through decisions by the Conference of the Parties.

B. Reasons for modification of EBSA descriptions

3. Reasons for the modification of EBSA descriptions are the following:

(a) There is newly available/accessible scientific and technical information, including through advanced expertise, methodological approaches or analytical methods, as well as newly accessible [indigenous and local][traditional] knowledge, on features associated with an area;

(b) There has been a change in the information that was used in the description of the EBSA;

(c) There has been a change in the ecological or biological feature(s) of an EBSA, which may lead to a change in the ranking of the area against the EBSA criteria or a change in the polygon of the area;

(d) There have been scientific errors identified in EBSA descriptions;

(e) There have been modifications to the EBSA template;

(f) Any other reason based on scientific and technical information.

C. Actors that can propose modification of EBSA descriptions

4. The following actors can propose, at any time, modification of EBSA descriptions:

Option 1

[(a) For EBSAs within national jurisdiction: the coastal State [with jurisdiction over the area];

(b) For EBSAs within the national jurisdiction of multiple States: the coastal State(s) in whose jurisdiction the modification is proposed, in consultation with the other State(s) concerned;

(c) For EBSAs in areas beyond national jurisdiction: any State and/or competent intergovernmental organization(s), with provision of notice to all States, [without prejudice to developments in the [United Nations General Assembly process on biodiversity in marine areas beyond national jurisdiction] [*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 the Areas Beyond National Jurisdiction*]];

(d) For EBSAs with features in areas both within and beyond national jurisdiction: relevant State(s) and/or competent intergovernmental organizations, in consultation with the relevant State(s).**]**

Option 2

[(a) For EBSAs, or parts of EBSAs, within national jurisdiction: coastal State [which exercises sovereignty, sovereign rights or] [with] jurisdiction over the area;

[282] As described in decision XIII/12, footnote 1.

(b) For EBSAs, or parts of EBSAs, in areas beyond national jurisdiction: Any State and/or competent intergovernmental organization, with provision of notice to all States, without prejudice to developments in the [United Nations General Assembly process on biodiversity in marine areas beyond national jurisdiction] [*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 the Areas Beyond National Jurisdiction*].**]**

5. Knowledge holders, including scientific research organizations, non-governmental organizations and holders of [indigenous and local][traditional] knowledge, should be encouraged to draw the attention of actors defined in subsection C, paragraph 4 above to any of the above reasons for modifying existing EBSA descriptions and to support those actors, if requested, in the preparation of modification proposals.

D. Modalities for the modification process

6. The modalities for modifying EBSA descriptions are the following:

For areas beyond national jurisdiction and, where the coastal States so wish, for areas within national jurisdiction:

(a) The Secretariat compiles the proposals for modifications made by the actors defined in subsection C, paragraph 4;

(b) On the basis of the compiled proposals, the informal advisory group advises the Executive Secretary on the proposed modification, in line with guidance/criteria on significant or minor modifications developed by the informal advisory group on EBSAs;

(c) Modalities for significant or minor modifications are as follows:

(i) For a significant modification: The procedure outlined in section II, paragraph 11 (c) and (d) of this document will be utilized. The CBD Secretariat convenes a workshop following the procedures for regional workshops contained in decision X/29, the report of which is submitted to SBSTTA and COP for their consideration;

(ii) For a minor modification: The CBD Secretariat prepares, after consulting the relevant State(s) or regional experts, a report on modifications, which is submitted to SBSTTA and COP for their consideration.

For areas within national jurisdiction:

[(a) Building on the procedure set out in paragraph 7 of decision XII/22, the coastal State may provide an update of the description contained in the EBSA repository or the information-sharing mechanism, as per the reasons outlined above, and submit information on the scientific and technical process, as well as the peer-review process, supporting the update, [for the subsequent consideration of SBSTTA and COP.**]** [and *request* the Executive Secretary to include it in the repository or the information-sharing mechanism and submit a progress report to SBSTTA and COP]

E. Key considerations for modifications

7. Parties and other Governments, as well as competent intergovernmental organizations, should be informed of the submission of any proposals for the modification of EBSA descriptions through a CBD notification and the EBSA website (www.cbd.int/ebsa).

8. The following considerations need to be taken into account:

(a) The importance of incorporating [indigenous and local][traditional] knowledge in the process of modification of EBSA descriptions, and ensuring the full and effective participation of indigenous peoples and local communities;

(b) Enhancing the incorporation of [indigenous and local][traditional] knowledge may require revision of the EBSA template;

(c) The need for a strong scientific and technical basis, including based on [indigenous and local][traditional] knowledge, for any proposed modification;

(d) The importance of transparency in the modification process;

(e) Opportunities to use cost-effective modalities;

(f) The need to maintain a record of information about any previously described EBSAs that were modified or deleted from the repository.

II. DESCRIPTION OF NEW AREAS MEETING THE EBSA CRITERIA

A. Actors that can initiate the description of new areas meeting the EBSA criteria

9. The following actors can initiate the description of new areas meeting the EBSA criteria:

Option 1

[(a) Within national jurisdiction: the coastal State [with jurisdiction over the area];

(b) Within the national jurisdiction of multiple States: coastal States in whose jurisdiction the description is proposed in consultation with the other State(s) concerned;

(c) In areas in beyond national jurisdiction: any State and/or competent intergovernmental organization(s), with provision of notice to all States, [without prejudice to developments in the [United Nations General Assembly process on biodiversity in marine areas beyond national jurisdiction] [*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 the Areas Beyond National Jurisdiction*]];

(d) For areas with features both within and beyond national jurisdiction: State(s) and/or competent intergovernmental organizations; in consultation with the other State(s) concerned];

Option 2

[(a) Within national jurisdiction: coastal State [which exercises sovereignty, sovereign rights or] [with] jurisdiction over the area;

(b) In areas beyond national jurisdiction: any State and/or competent intergovernmental organization, with provision of notice to all States, without prejudice to developments in the [United Nations General Assembly process on biodiversity in marine areas beyond national jurisdiction;] [*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*];**]**

10. Knowledge holders, including scientific research organizations, non-governmental organizations and holders of [indigenous and local][traditional] knowledge, should be encouraged to draw the attention of actors defined in subsection A, paragraph 9, to any of the needs/reasons to initiate the description of new areas meeting the EBSA criteria.

B. Modalities to undertake the description of new areas meeting the EBSA criteria

11. Modalities for the description of new areas include the following steps:

(a) New information is submitted (using the EBSA template), at any time, to the Secretariat;

(b) Any proposals for the description of new areas is transmitted by the Secretariat to Parties, other Governments, relevant competent intergovernmental organizations and the informal advisory group on EBSAs;

(c) The informal advisory group on EBSAs reviews the proposals and advises when a new regional workshop is needed. A scientific gap analysis can inform this review process and identify the need for thematic analysis, which can complement regional workshops;

(d) The description of new areas through regional workshops follows the existing process of submission to the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties for consideration and possible inclusion in the EBSA repository.

12. National exercises for describing new areas meeting the EBSA criteria are described in section III, subsection C below.

C. Key considerations for the description of new areas meeting the EBSA criteria

13. The following considerations need to be taken into account:

(a) Parties and other Governments, as well as competent intergovernmental organizations, should be informed of any submission of proposals for the description of new areas through a CBD notification and the EBSA website (www.cbd.int/ebsa);

(b) The importance of incorporating [indigenous and local][traditional] knowledge in the process of new EBSA descriptions, and ensuring the full and effective participation of indigenous peoples and local communities;

(c) The need for a strong scientific and technical basis for any new proposal;

(d) The importance of transparency in the process for new description;

(e) Opportunities to use cost-effective modalities;

(f) Inter-regional differences in data availability and research efforts should be taken into account when describing new EBSAs.

III. OPTIONS FOR STRENGTHENING THE SCIENTIFIC CREDIBILITY AND TRANSPARENCY OF THE EBSA PROCESS

A. Scientific credibility of the EBSA process

14. With regard to strengthening the scientific credibility of the EBSA process, the following could be undertaken:

(a) Planning of workshops in collaboration with the informal advisory group on EBSAs to ensure the provisioning of scientific information and [indigenous and local][traditional] knowledge at appropriate scales;

(b) Specifically addressing any imbalance across areas of expertise, including by exploring possible linkages with the CBD Global Taxonomy Initiative and strengthening networks with other relevant organizations, as appropriate.

15. The following considerations need to be taken into account:

(a) Furthering cooperation with Ocean Biogeographic Information System of the Intergovernmental Oceanographic Commission of UNESCO in accessing scientific information in support of regional workshops;

(b) Strengthening guidance, and, where necessary, mobilizing resources, for preparations at the national and regional level prior to a regional workshop in order to ensure the timely gathering of scientific information and [indigenous and local][traditional] knowledge;

(c) Providing pre-workshop training;

(d) Using the training manual on the incorporation of traditional knowledge into the description and identification of EBSAs (UNEP/CBD/SBSTTA/20/INF/21);

(e) The application of the EBSA criteria can be strengthened by referencing, as much as possible, peer reviewed publications and by incorporating [indigenous and local][traditional] knowledge.

B. Transparency of the EBSA process

16. The transparency of the EBSA process can be strengthened by making available the following:

(a) List of experts who have contributed to describing new, or reviewing existing, descriptions;

(b) Information on free prior informed consent of indigenous peoples and local communities when [indigenous and local][traditional] knowledge was incorporated in the EBSA description;

(c) The geographic scope of regional workshops in the repository;

(d) Access to data/information (e.g., satellite images, links to referenced academic papers, documentation of [indigenous and local][traditional] knowledge) used by the regional workshops;

(e) When national processes were used to describe EBSAs, the descriptions are to be accompanied by an explanation of the national processes, including how peer-review of the results was conducted.

C. National exercises

17. The results of national exercises can be included in either the EBSA repository or information-sharing mechanism through one of the following paths:

<u>For inclusion in the EBSA repository</u>

(a) [If the Parties so wish,] the results of their national exercises are submitted to a regional workshop, followed by consideration by the Subsidiary Body on Scientific, Technical and Technological Advice and the Conference of the Parties for possible inclusion in the EBSA repository;

(b) Building on the procedure set out in paragraph 7 of decision XII/22, the Coastal State may submit the results of national exercises on the description of areas meeting the EBSA criteria, together with information on the scientific and technical process as well as the national peer-review process, supporting the description, [for the consideration of SBSTTA and COP, for possible inclusion in the EBSA repository] [and *request* the Executive Secretary to include them in the repository and submit a progress report to SBSTTA and COP.]

For inclusion in the EBSA information-sharing mechanism

(a) Peer-review by the relevant Parties and other Governments, facilitated by the CBD Secretariat, for inclusion in the information-sharing mechanism.

18. There is a need for:

(a) Capacity-building in best practices for the application of the EBSA criteria at the national level, particularly in developing countries;

(b) Incentives to enhance accessibility of local/national information;

(c) Inter-agency coordination for effective national exercises;

(d) Financial resources for national exercises.

IV. CAPACITY-BUILDING NEEDS FOR THE MODIFICATION OF EBSA DESCRIPTIONS AND THE DESCRIPTION OF NEW EBSAS

19. Capacity-building needs with regard to the modification of EBSA descriptions and the description of new EBSAs include:

(a) Use of scientific and technical information and [indigenous and local][traditional] knowledge to describe areas meeting the EBSA criteria and modify EBSA descriptions;

(b) Awareness and understanding of the EBSA process;

(c) Dialogue between the holders of [indigenous and local] [traditional] knowledge and scientists on the use of [indigenous and local][traditional] knowledge in the description of EBSAs and modification of EBSA descriptions;

(d) Understanding the links between the EBSA process and other relevant processes.

Annex III

ADDENDUM TO THE TERMS OF REFERENCE OF THE INFORMAL ADVISORY GROUP ON ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS

Further to the provisions in section I (Mandate) of annex III to decision XIII/12, the objectives of the informal advisory group include the following:

Regarding the modalities for the modification process for areas beyond national jurisdiction and, where the coastal States so wish, for areas within national jurisdiction:

(a) Develop guidance/criteria on what constitutes a significant modification and/or a minor modification;

(b) On the basis of the compiled proposals for modifications, advise the Executive Secretary on whether the proposed modifications meet the above-noted guidance/criteria for a significant and/or a minor modification;

Regarding the modalities to undertake the description of new areas meeting the EBSA criteria

(c) Review proposals for the description of new areas meeting the EBSA criteria; advise when a new regional workshop is needed to facilitate the description of areas meeting the EBSA criteria; identify the need for

scientific gap analysis and/or thematic analysis, which could complement regional workshops; and, as appropriate, provide advice to the Executive Secretary, based on the results of such analysis.

Regarding strengthening the scientific credibility of the EBSA process

(d) Collaborate with the Executive Secretary in the planning of EBSA workshops to ensure the provisioning of scientific and technical and [indigenous and local] [traditional] knowledge at appropriate scales.

Other matters related to marine and coastal biodiversity

The following is taken from paragraphs 6-14 of recommendation 22/6 of the Subsidiary Body on Scientific, Technical and Technological Advice

The Conference of the Parties,

1. *Takes note* of the continued work of the Executive Secretary on the compilation and synthesis of information related to:

(a) The impacts of anthropogenic underwater noise on marine and coastal biodiversity, and means to minimize and mitigate these impacts;[283]

(b) Experiences with the application of marine spatial planning;[284]

2. *Encourages* Parties, other Governments and relevant organizations to use this information, including in their efforts to minimize and mitigate the impacts of anthropogenic underwater noise and to apply marine spatial planning;

3. *Recalls* decisions XIII/10 on marine debris and XIII/11 on biodiversity in cold-water areas, *notes* the outcomes of the United Nations Conference to Support the Implementation of Sustainable Development Goal 14,[285] and *urges* Parties to increase their efforts with regard to:

(a) Minimizing and mitigating the impacts of marine debris, in particular plastic pollution, on marine and coastal biodiversity;

(b) Addressing the potential impacts of deep-seabed mining on marine biodiversity;

(c) Protecting biodiversity in cold-water areas;

4. *Requests* the Executive Secretary to inform the United Nations Environment Assembly's Ad Hoc Open-Ended Expert Group on Marine Litter of the relevant work undertaken by the Convention, and also to participate, as relevant, in the work of the Expert Group;[286]

5. *Welcomes* the work of the Executive Secretary in compiling information on the mainstreaming of biodiversity in fisheries, including through the ecosystem approach to fisheries,[287] and *encourages* Parties and *invites* other Governments and relevant organizations to make use of this information;

---

[283] CBD/SBSTTA/22/INF/13.

[284] CBD/SBSTTA/22/INF/14.

[285] See General Assembly resolution 71/312 of 6 July 2017.

[286] *Noting* United Nations Environment Assembly resolution 3/7 on marine litter and microplastics and, in particular, the invitation to relevant international and regional organizations and conventions, including the Convention on Biological Diversity, as appropriate within their mandates, to increase their actions to prevent and reduce marine litter and microplastics and their harmful effects, and coordinate, where appropriate, to achieve this end, as well as the decision to convene an Ad Hoc Open Ended Expert Group under the United Nations Environment Assembly to further examine the barriers to, and options for, combating marine plastic litter and microplastics from all sources, especially land-based sources.

[287] "Compilation and synthesis of experiences in mainstreaming biodiversity in fisheries" (CBD/SBSTTA/22/INF/15).

6. *Welcomes* the capacity-building and partnership activities being facilitated by the Executive Secretary 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 the Governments of Japan, France, the Republic of Korea and Sweden, and to the European Union and many other partners, for providing financial and technical support for the implementation of activities related to the Sustainable Ocean Initiative, and *requests* the Executive Secretary to continue these activities under specific themes within the framework of the Sustainable Ocean Initiative;

7. *Also welcomes* the collaborative efforts among the Secretariat, the United Nations Environment Programme, the Food and Agriculture Organization of the United Nations, regional seas conventions and action plans, regional fisheries 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 relevant Sustainable Development Goals, [288] including through the Sustainable Ocean Initiative Global Dialogue with Regional Seas Organizations and Regional Fisheries Bodies, and *requests* the Executive Secretary to transmit the outcomes of the first and second meetings of the Sustainable Ocean Initiative Global Dialogue to relevant global and regional processes, and to collaborate with Parties, other Governments, relevant organizations and donors to facilitate on-the-ground implementation of these outcomes;

8. *Invites* the Food and Agriculture Organization of the United Nations and regional fisheries bodies to contribute scientific information, experiences and lessons learned, as appropriate, including relevant reporting from the Code of Conduct for Responsible Fisheries Questionnaire, as an input for the fifth edition of the *Global Biodiversity Outlook*;

9. *Welcomes* the cooperation between the Food and Agriculture Organization of the United Nations, the Fisheries Expert Group of the Commission of Ecosystem Management under the International Union for Conservation of Nature, and the Secretariat to support, and improve reporting on, the achievement of Aichi Biodiversity Target 6, and *requests* the Executive Secretary to continue this cooperation.

[288] See General Assembly resolution 70/1 of 25 September 2015 entitled "Transforming our world: the 2030 Agenda for Sustainable Development".

Item 26. Invasive alien species

The following is taken from recommendation 22/8 of the Subsidiary Body on Scientific, Technical and Technological Advice

The Conference of the Parties,

Recognizing the growth in e-commerce in invasive alien species and the need for collaboration to minimize the associated risks,

Also recognizing the adverse impacts of invasive alien species on vulnerable ecosystems, such as islands and Arctic regions, as well as on social, economic and cultural values, including those associated with indigenous peoples and local communities,

1. *Welcomes* decision 6/1 of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, in which the Plenary approved, among other things, the undertaking of a thematic assessment of invasive alien species and their control;

2. *Welcomes* the supplementary voluntary guidance for avoiding unintentional introductions of invasive alien species associated with trade in live organisms annexed to the present decision;

3. *Encourages* Parties and *invites* other Governments and relevant organizations to make use of the supplementary voluntary guidance for avoiding unintentional introductions of invasive alien species associated with trade in live organisms;

4. *Decides,* subject to the availability of resources, to establish an Ad Hoc Technical Expert Group, with the terms of reference contained in annex II to the present decision, which will meet as needed to ensure timely provision of advice on achieving Aichi Biodiversity Target 9, and, wherever possible, meet back-to-back with other relevant meetings, and *requests* the Executive Secretary to convene a moderated open online discussion forum to support the deliberations of the Ad Hoc Technical Expert Group;

5. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to consider the results of the online forum and the Ad Hoc Technical Expert Group at a meeting to be held prior to the fifteenth meeting of the Conference of the Parties;

6. *Encourages* Parties and *invites* other Governments to share information on national regulations that are relevant to invasive alien species, as well as regional regulations and lists on invasive alien species, through the clearing-house mechanism or other equivalent means;

7. *Encourages* Parties, other Governments and relevant organizations to cooperate with the business sector in order to address the issue of invasive alien species, and invite them to explore new opportunities that promote activities for achieving Aichi Biodiversity Target 9;

8. *Encourages* Parties, other Governments and relevant expert organizations to promote data mobilization to, for example, the Global Register of Introduced and Invasive Species produced through the Global Invasive Alien Species Information Partnership, and by supporting the development of the Environmental Impact Classification of Alien Taxa by the International Union for Conservation of Nature;

9. *Urges* Parties and other Governments to coordinate with the authorities of customs, border controls, sanitary and phytosanitary measures and other relevant competent bodies at the national and regional levels, to prevent unintentional introductions of invasive alien species associated with trade in live organisms;

10. *Recognizes* that further work on the impacts of invasive alien species on the social, economic and cultural values of indigenous peoples and local communities is imperative and should be carried out in close cooperation with indigenous peoples and local communities, and *encourages* further work on the classification by the International Union for Conservation of Nature of the impact of invasive alien species on social, economic and cultural values;

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

(a) To explore with the Secretariat of the United Nations Economic and Social Council, the World Customs Organization and the Inter-agency Liaison Group on Invasive Alien Species the possibility of developing a globally harmonized system of classification and labelling, consistent and in harmony with international obligations, for consignments of living organisms that pose a hazard or risk to biological diversity related to invasive alien species, supplementary to existing international standards, and report on progress to the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting to be held prior to the fifteenth meeting of the Conference of the Parties;

(b) To facilitate the work of the online forum and the Ad Hoc Technical Expert Group referred to in paragraph 4 above, by preparing a compilation and synthesis of the submissions and discussions.

Annex I

SUPPLEMENTARY VOLUNTARY GUIDANCE FOR AVOIDING UNINTENTIONAL INTRODUCTIONS OF INVASIVE ALIEN SPECIES ASSOCIATED WITH TRADE IN LIVE ORGANISMS

1. The present guidance supplements the Guidance on Devising and Implementing Measures to Address the Risks Associated with the Introduction of Alien Species as Pets, Aquarium and Terrarium Species, and as Live Bait and Live Food annexed to decision XII/16.

2. The purpose of this guidance is to minimize the risk of biological invasion of alien species crossing the borders of national jurisdiction and distinct biogeographic areas through the unintentional introduction pathways described in the CBD pathway categorization in association with trade in live organisms.

3. This guidance is relevant to States, relevant organizations, industry and consumers, including all actors involved in the entire value chain of trade in live organisms (e.g. exporters, importers, breeders, including amateur collectors, participants of exhibitions, and wholesalers, retailers and customers). For the case of live food trade, the persons involved in the value chain also include individuals in the business of restaurants and food markets.

I. SCOPE

4. This guidance is voluntary and intended to be used in conjunction with, and be mutually supportive to, other relevant guidance, for example: the Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species that Threaten Ecosystems, Habitats and Species (decision VI/23);[289] the International Standards for Phytosanitary Measures (ISPMs); the Terrestrial Animal Health Code and the Manual of Diagnostic Test and Vaccines for Terrestrial Animals of the World Organisation for Animal Health (OIE); the OIE Aquatic Animal Health Code and the Manual of Diagnostic Tests for Aquatic Animals and other standards and guidance developed by relevant international organizations.

5. This guidance also describes integrated processes for its implementation together with the guidance annexed to decision XII/16 and existing international standards set for the protection of biodiversity, and the health of animals, plants and humans.

6. This guidance can be implemented by Parties and other Governments with cross-sectoral collaboration among conservation authorities, border control authorities, and risk regulatory bodies relevant to international trade as well as relevant industries and consumers who are involved in the value chain of trade in live organisms.

[289] One representative of a Party entered a formal objection during the process leading to the adoption of this decision and underlined that he did not believe that the Conference of the Parties could legitimately adopt a motion or a text with a formal objection in place. A few representatives expressed reservations regarding the procedure leading to the adoption of this decision (see UNEP/CBD/COP/6/20, paras. 294-324).

II. MEASURES TO REDUCE THE RISK OF INVASIVE ALIEN SPECIES MOVING UNINTENTIONALLY IN PATHWAYS ASSOCIATED WITH TRADE IN LIVE ORGANISMS

A. Conformity with existing international standards and other guidance relevant to invasive alien species

7. For all animals or animal products contained in a consignment of live organisms, the appropriate sanitary standards developed through the standard-setting processes of the World Organisation for Animal Health should be used to harmonize national measures, in both exporting and importing countries.

8. For all plants or plant products, including any soil, leaf litter, straw, or other substrates, hay, seeds, fruit or other sources of food contained in a consignment of live organisms, the appropriate phytosanitary standards developed through the standard-setting processes of the International Plant Protection Convention should be used to harmonize national measures in both exporting and importing countries.

9. A sender/exporter of live organisms should demonstrate that the commodity being exported, including its associated shipping materials (for example, water, food, bedding), poses no sanitary or phytosanitary risk to the importing country's biodiversity. This may be communicated to the national border authority of importing country by presenting a certificate issued by the exporting veterinary authority/competent authority for animals, or by presenting a phytosanitary certificate issued by the exporting national plant protection organization for plants in an exporting country, in accordance with national import regulations, which are based on pest risk analysis.

10. Carrier conveyances for consignments of live organisms should meet existing international guidance established under international organizations, such as the Code of Practice for Packing of Cargo Transport Units (CTU Code) of the International Maritime Organization/International Labour Organization/United Nations Economic Commission for Europe,[290] but should not be limited to this.

B. Responsible preparation of consignments of live organisms

11. A sender/exporter of live organisms should be fully aware of the potential risks of biological invasions resulting from the movement of alien species through unintentional pathways associated with trade in live organisms and should ensure: (a) that a consignment meets sanitary and phytosanitary requirements set by an importing country (b) compliance with national and regional regulations on the import and export of invasive alien species; and (c) measures to minimize the risk of unintentional introductions are applied.

12. A sender/exporter of a consignment of live organisms should inform the importer/receiver of the potential risks of biological invasion by alien species on a document attached to the consignment containing live organisms, addressed to the border control authorities, national plant protection organizations or veterinary authorities. In some cases, this information should be presented to the competent authorities in the country or countries of transit, in order to allow the adoption of appropriate risk management measures during transit.

13. A sender/exporter of live organism should apply all appropriate sanitary and phytosanitary measures to ensure that the live organisms are shipped free of pests, pathogenic agents and alien organisms which may carry risks of biological invasions in an importing country or biogeographic areas receiving them.

C. Packing containers/consignment

14. Each consignment should be appropriately labelled as a "potential risk to biodiversity" when applicable, taking into account the risk of biological invasions that may be posed by the live organisms associated with the consignment, by a sender/exporter, especially when the live organisms were captured or collected from the wild, to inform the persons involved in the entire value chain of the potential risks to biodiversity.

15. Packing material or containers associated with the movement of live organisms should be free of pests, pathogenic agents and invasive alien species which are of concern to the importing country, country of transit or biogeographic areas concerned. If the packing material is made from wood, appropriate treatment described in ISPM 15 (Regulation of wood packaging material in international trade) as well as other national and regional regulations should be applied.

16. If a packing container is to be reused, it should be washed and disinfected by a sender/exporter prior to shipping and visually inspected prior to reusing.

---

[290] https://www.unece.org/fileadmin/DAM/trans/doc/2014/wp24/CTU_Code_January_2014.pdf

17. Packing containers for aquatic species should be closed appropriately by a sender/exporter to prevent leaks of water(s) and/or contamination into or from the consignment during the transport along the entire value chain.

D. Materials associated within packing containers

18. A sender/exporter of live organisms should ensure that, prior to shipping, animal bedding is treated with appropriate method(s) to ensure that it is free of pests, pathogenic agents and invasive alien species which are of concern to an importing country, countries of transit or biogeographic areas concerned.

19. Water(s) for aquatic live organisms and any associated media to be used during transport should be free of pests, pathogenic agents and invasive alien species which are of concern to an importing country or biogeographic areas receiving them and should be treated as required.

20. Air and air supplying devices associated with consignments of aquatic organisms should be free of pests, pathogenic agents and invasive alien species which are of concern to an importing country or biogeographic areas receiving them.

21. Any soil or soil-related materials associated with the transport of live organisms should be eliminated by a sender/exporter prior to shipping. If soil or soil-related materials cannot be eliminated from the packing containers, the sender/exporter should consult the import regulations of the national plant protection organization of the importing country and comply with them.

E. Feed or food for live animals

22. A sender/exporter of live organisms should ensure that any feed or food contained in a consignment does not consist of viable seeds, parts of plants or animals that maintain the potential of establishment at the destination. Senders/exporters should ensure that the feed or food is free of pests, pathogenic agents and invasive alien species which are of concern to an importing country, countries of transit or biogeographic areas concerned.

F. Treatment of by-products, waste, waters and media

23. By-products and waste produced during the transport of live organisms should be removed from the consignment and treated or eliminated as soon as possible on arrival in the receiving country. The recipient of the consignment should apply appropriate treatment, including disinfection,[291] incineration, rendering, autoclaving, or other measures on packing containers, other associated materials, by-products and waste prior to their disposal in order to minimize the risks posed by invasive alien species.

G. Condition of carrier conveyances

24. If live organisms are expected to be loaded or have been previously loaded, the owners and operators of the carrier conveyances should ensure that the conveyances are washed, disinfected or otherwise appropriately treated. The owners of carrier conveyances should take responsible measures to apply the treatment immediately upon the arrival of a carrier conveyance at a destination and maintain the treated condition until the next use.

25. Prior to an operation, a carrier conveyance should be inspected to determine its sanitary and phytosanitary condition to ensure that unintentional introduction of pests, pathogenic agents and invasive alien species is minimized.

26. In the event of escape of live organisms, accidental spillage or leaks from a consignment, the owner and operators of the carrier conveyance should take necessary measures to recapture and contain the live organisms and alien species attached to them and immediately notify the appropriate authorities of that country of any escape of live organisms, accidental spillage or leaks from a consignment. The owners and operators of carrier conveyances should wash the carrier conveyance and disinfect or treat it appropriately, and inform relevant national authorities in the affected country (county of transit or destination) about the nature of the escape, spillage or leak and the measures taken by the owners or operators of the carrier conveyance.

H. Role of the receiver/importer

27. A receiver/importer should be aware of import requirements set by the importing country and ensure that the import requirements are met. The importer should inform the appropriate authorities, if the consignment is contaminated, to ensure that the necessary measures are taken to contain and dispose of the contaminants.

---

[291] Disinfection means the application, after thorough cleansing, of procedures intended to destroy the infectious or parasitic agents of animal diseases, including zoonoses; this applies to premises, vehicles and different objects which may have been directly or indirectly contaminated (OIE Terrestrial Animal Health Code).

I. Role of States and national authorities in relation to invasive alien species

28. It is recommended that relevant records of consignments containing live organisms, imported to a country be collected and maintained with regard to senders/exporters, recipients/importers, the species name, and the origin of the organisms or commodity. If contaminants have been detected in the consignment, measures taken to prevent introduction and spread of invasive alien species, pests and pathogens and the health status of the animal and the phytosanitary conditions of the plant should also be recorded.

29. States should apply appropriate national border risk management measures in accordance with existing international guidance and national regulations and policy to minimize the risk of unintentional introduction of invasive alien species associated with trade in live organisms.

30. States may encourage the use of DNA sequence based taxonomic identification technologies, such as DNA barcoding, as tools for the identification of alien species of concern to the State.

31. When invasive alien species unintentionally enter or become established, relevant authorities should be notified, including, as appropriate, environmental authorities, the veterinary authority/competent authority and the national plant protection organization, to ensure that the exporting or re-exporting country, neighbouring countries and countries of transit are informed of the event in order to prevent the further spread of the invasive alien species.

32. States, in cooperation with relevant organizations, should make information freely available to the public on: (a) import requirements for trade in live organisms and other relevant national and regional regulations and policies related to invasive alien species; and (b) results of pathway risk analysis, if they have been undertaken.

33. States that receive live organisms, their subnational governments, relevant organizations and industry involved in trade with live organisms should raise awareness on the risk of unintentional introduction of pests, pathogenic agents and invasive alien species to persons involved in the entire value chain. This includes awareness-raising campaigns using case studies of biological invasions resulting from unintentional introduction of invasive alien species directed at the public, potential operators (amateur breeders, etc.) and persons involved in the entire value chain.

J. Monitoring

34. States should conduct monitoring of invasive alien species which can unintentionally arrive in their territories, particularly in susceptible areas (e.g. ports, cross-docking and warehousing facilities, off-dock container yards, connected roads and railways) where their entry, establishment and early stage of spreading may occur.

35. When unintentional introduction in susceptible areas is observed, States should intensify the monitoring of invasive alien species in nearby areas where there are concerns about protecting biodiversity, and carry out rapid responses to contain, control and eradicate the invasive alien species.

36. States should monitor in-country movement and spread of invasive alien species introduced unintentionally with the import of live organisms in collaboration with subnational or local authorities in order to minimize the impact of invasive alien species and their spread.

K. Other measures

37. Any national risk management measures regarding unintentional introduction pathways in exporting and importing countries, and codes of conduct set by international bodies related to shipping and delivery services, may apply within the scope of this voluntary supplementary guidance.

38. The risks of unintentionally moving other species as contaminants, for example, in bedding materials, or in the shipping container and associated conveyances, as food or feed, should be considered in the risk assessment of a live organism intended to be imported for use as pets, aquarium and terrarium species, and as live bait and live food.

Annex II

TERMS OF REFERENCE FOR THE AD HOC TECHNICAL EXPERT GROUP ON INVASIVE ALIEN SPECIES

1. The Ad Hoc Technical Expert Group on Invasive Alien Species will address matters that are not covered by the assessment of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Building on the work of the moderated online forum, and knowledge and experience accumulated in various different sectors, the Ad Hoc Technical Expert Group shall provide advice or develop elements of technical guidance on management

measures on invasive alien species to be implemented by broad sectors to facilitate achieving Aichi Biodiversity Target 9 and beyond:

(a) Methods for cost-benefit and cost-effectiveness analysis which best apply to the management of invasive alien species;

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

(c) Management of invasive alien species as it relates to new potential risks arising from climate change and associated natural disasters and land use changes;

(d) Risk analysis on the potential consequences of the introduction of invasive alien species on social, economic and cultural values;

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

2. Subject to the availability of resources, the Ad Hoc Technical Expert Group shall meet prior to the fifteenth meeting of the Conference of the Parties in accordance with the modus operandi of the Subsidiary Body on Scientific, Technical and Technological Advice.[292] The Ad Hoc Technical Expert Group should be composed of experts that have actively contributed to the process of the moderated online discussion forum in fields relevant to paragraph 1 of the present terms of reference, with participation of indigenous peoples and local communities and small island developing States, taking into account their experiences to address risks posed by invasive alien species on social, economic and cultural values, and vulnerable biodiversity in island ecosystems, respectively.

[292] Decision VIII/10, annex III.

Item 27. Synthetic biology

The following is taken from recommendation 22/3 of the Subsidiary Body on Scientific, Technical and Technological Advice

The Conference of the Parties,

Recalling decisions XII/24 and XIII/17,

1. *Welcomes* the outcomes of the meeting of the Ad Hoc Technical Expert Group on Synthetic Biology held in Montreal, Canada, from 5 to 8 December 2017;[293]

2. *Recognizes* that synthetic biology is rapidly developing and a cross-cutting issue, with potential benefits and potential adverse effects vis-à-vis the three objectives of the Convention on Biological Diversity;

3. *Agrees* that horizon scanning, monitoring and assessing of developments in the field of synthetic biology[, including those that result from genome editing,] 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 its Protocols;

[4. *Decides* to establish a process and modalities for regular horizon scanning, monitoring and assessment of new developments in the field of synthetic biology, and *also decides* to establish a mechanism for regularly reporting the outcomes to the Subsidiary Body on Scientific, Technical and Technological Advice, the Conference of the Parties and the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety;]

5. *Recognizes* the need to conduct an analysis of synthetic biology against the criteria in decision IX/29, paragraph 12, in order to complete the analysis requested in decisions XII/24, paragraph 2, and XIII/17, paragraph 13;

6. *Also recognizes* that developments arising from research and development in the field of synthetic biology may pose challenges to the ability of some countries, especially developing countries, in particular those with limited experience or resources, to assess the full range of applications and potential impacts of synthetic biology on the three objectives of the Convention;

7. *Further recognizes* the role of information and resources under the clearing-house mechanism of the Convention and the Biosafety Clearing-House of the Cartagena Protocol and capacity-building initiatives in assisting those countries;

8. *Emphasizes* 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;

9. *Takes note* of the current efforts by Parties, other Governments, relevant organizations and others to inform on development, gaps in knowledge and other matters relevant to the objectives of the Convention in relation to synthetic biology;

10. *Calls upon* Parties and other Governments, taking into account the current uncertainties regarding engineered gene drives, to apply a precautionary approach,[294] in accordance with the objectives of the Convention, [with regard to][and refrain from] the release, including experimental release, of organisms containing engineered gene drives;

[293] CBD/SBSTTA/22/4, annex.

[294] See decision XIII/17.

11. *Recognizes* that, as there could be potential adverse effects arising from organisms containing engineered gene drives, before these organisms are considered for release into the environment, research and analysis are needed, and specific guidance may be useful,[295] to support case-by-case risk assessment;

12. *Notes* the conclusions of the Ad Hoc Technical Expert Group on Synthetic Biology[296] that, given the current uncertainties regarding engineered gene drives, the free, prior and informed consent of indigenous peoples and local communities might be warranted when considering the possible release of organisms containing engineered gene drives that may impact their traditional knowledge, innovation, practices, livelihood and use of land and water;

13. *Calls upon* Parties, other Governments and relevant organizations to continue to develop or implement, as appropriate, measures to prevent or minimize potential adverse effects arising from exposing the environment to organisms, components and products of synthetic biology in contained use, including measures for detection, identification and monitoring, in accordance with domestic circumstances or internationally agreed guidelines, as appropriate, with special consideration to the centres of origin and genetic diversity;

14. *Also calls upon* Parties, other Governments and relevant organizations to continue to disseminate information and share, especially through the clearing-house mechanisms of the Convention and the Biosafety Clearing-House, their experiences on scientific assessments of the potential benefits and potential adverse impacts of synthetic biology to biological diversity, including, inter alia, that of specific applications of organisms containing engineered gene drives, and from the use of living modified organisms that have been released into the environment;

15. *Decides* to extend the Ad Hoc Technical Expert Group on Synthetic Biology with renewed membership, taking into account, inter alia, the work on risk assessment under the Cartagena Protocol, to work in accordance with the terms of reference annexed hereto;

16. *Also decides* to extend the Open-ended Online Forum on Synthetic Biology, taking into account the work on risk assessment under the Cartagena Protocol, to support the deliberations of the Ad Hoc Technical Expert Group on Synthetic Biology, and *invites* Parties, other Governments, indigenous peoples and local communities and relevant organizations to continue to nominate experts to take part in the Online Forum on Synthetic Biology;

17. *Invites* Parties, other Governments, indigenous peoples and local communities, and relevant organizations to provide the Executive Secretary with relevant information related to paragraphs (a) to (d) of the annex in order to contribute to the work of the Ad Hoc Technical Expert Group;

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

(a) To convene moderated online discussions under the Open-ended Online Forum on Synthetic Biology;

(b) To facilitate the work of the Ad Hoc Technical Expert Group on Synthetic Biology by, among other things, collecting and synthesizing and arranging for peer review of relevant information, and convening at least one face-to-face meeting;

(c) To update the Technical Series on Synthetic Biology for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice based on the peer review of scientific information and other relevant information;

(d) To further pursue cooperation with other organizations, conventions and initiatives, including academic and research institutions, from all regions, on issues related to synthetic biology, including the exchange of experiences and information;

---

[295] The Subsidiary Body on Scientific, Technical and Technological Advice has recommended that the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety (recommendation 22/2) consider the need for specific guidance on risk assessment of living modified organisms containing engineered gene drives at its tenth meeting.

[296] https://www.cbd.int/meetings/SYNBIOAHTEG-2017-01.

(e) To explore ways to facilitate, promote and support capacity-building and knowledge-sharing regarding synthetic biology, taking into account the needs of Parties and of indigenous peoples and local communities, including through necessary funding, and the co-design of information and training materials in the official languages of the United Nations and, where possible, in local languages;

(f) To collaborate and convene discussions, including through the Network of Laboratories for the Detection and Identification of Living Modified Organisms,[297] for sharing experiences on the detection, identification and monitoring of organisms, components and products of synthetic biology, and to continue inviting laboratories, including analytical laboratories, to join the Network;

(g) To ensure the full and effective participation of indigenous peoples and local communities in the discussions and decision-making on synthetic biology, in accordance with decision X/40.

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

(a) To consider the work of the Open-ended Online Forum and the Ad Hoc Technical Expert Group on Synthetic Biology;

(b) To note the preliminary analysis done by the Executive Secretary[298] and to consider further analyses and advice from the Ad Hoc Technical Expert Group on Synthetic Biology of the relationship between synthetic biology and the criteria set out in decision IX/29, paragraph 12, in order to contribute to the completion of the analysis requested in decision XII/24, paragraph 2;

(c) To submit a recommendation to the Conference of the Parties at its fifteenth meeting.

Annex

TERMS OF REFERENCE FOR THE AD HOC TECHNICAL EXPERT GROUP ON SYNTHETIC BIOLOGY

The Ad Hoc Technical Expert Group on Synthetic Biology shall:

(a) Provide an advice on the relationship between synthetic biology and the criteria set out in decision IX/29, paragraph 12, in order to contribute to the completion of the assessment requested in decision XII/24, paragraph 2, building on the preliminary analysis prepared by the Executive Secretary in document SBSTTA/22/INF/17;

(b) Take stock of new developments in synthetic biology since the Ad Hoc Technical Expert Group's last meeting in order to support a regular horizon scanning process;

(c) Undertake a review of the current state of knowledge by analysing information, including but not limited to peer-reviewed published literature, on the potential positive and negative environmental impacts, taking into account human health, cultural and socioeconomic impacts, especially with regard to the value of biodiversity to indigenous peoples and local communities, of current and near-future applications of synthetic biology, including those applications that involve organisms containing engineered gene drives, taking into account the traits and species potentially subject to release and the dynamics of their dissemination, as well as the need to avoid duplication with the work on risk assessment under the Cartagena Protocol on Biosafety;

(d) Consider whether any living organism developed thus far through new developments in synthetic biology fall outside the definition of living modified organisms as per the Cartagena Protocol;

(e) Prepare a forward-looking report on synthetic biology applications that are in early stages of research and development, vis-à-vis the three objectives of the Convention, by compiling and analysing information, including but not limited to peer-reviewed published literature;

(f) Prepare a report on the outcomes of its work for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting to be held before the fifteenth meeting of the Conference of Parties.

[297] http://bch.cbd.int/onlineconferences/portal_detection/lab_network.shtml.

[298] SBSTTA/22/INF/17.

Item 28. Liability and redress (Article 14, paragraph 2)

[to be completed on the basis of document CBD/COP/14/10].

_____