



Convention on Biological Diversity

Distr.
GENERAL

CBD/SBSTTA/22/INF/31
CBD/SBI/2/INF/33
16 June 2018

ENGLISH ONLY

SUBSIDIARY BODY ON SCIENTIFIC
TECHNICAL AND TECHNOLOGICAL ADVICE
Twenty-second meeting
Montreal, Canada, 2-7 July 2018
Item 6 of the provisional agenda*

SUBSIDIARY BODY ON IMPLEMENTATION
Second meeting
Montreal, Canada, 9-13 July 2018
Item 16 of the provisional agenda**

EFFECTIVE USE OF KNOWLEDGE IN DEVELOPING THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Note by the Executive Secretary

1. At its thirteenth meeting, the Conference of the Parties requested the Executive Secretary to prepare, in collaboration with members of the Biodiversity Indicators Partnership and other relevant partners, updated scientific assessments of progress towards the Aichi Biodiversity Targets (decision XIII/30, para. 1). At the same meeting, the Conference of the Parties also requested the Executive Secretary to prepare, in consultation with the Bureau and for consideration by the Subsidiary Body on Implementation at its second meeting, a proposal for a comprehensive and participatory preparatory process and timetable for the follow-up to the Strategic Plan for Biodiversity 2011-2020, indicating that this should inter alia take into account the preparation of the fifth edition of the *Global Biodiversity Outlook* and the assessment of the implementation of the Strategic Plan for Biodiversity 2011-2020 (decision XIII/1, para. 34).
2. At its twenty-first meeting, the Subsidiary Body on Technical, Technological and Scientific Advice also requested the Executive Secretary, when preparing proposals for the process of developing a post-2020 global biodiversity framework, to make provisions for sound analytical work in order to ensure that this framework is based on the best available evidence (recommendation XX/1, para. 8). Some of this analytical work is already being undertaken through assessment of progress in addressing the Aichi Biodiversity Targets, and will be undertaken through the preparation of the fifth edition of the *Global Biodiversity Outlook*.
3. In order to further consider the analytical work that might be necessary to support the development of post 2020 global biodiversity framework, an expert meeting was convened in Cambridge, United Kingdom, from 10 to 12 April 2018 by the Cambridge Conservation Initiative. The expert meeting involved invited experts from 25 countries, including members of the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biological Diversity and representatives of the Secretariat. The aim of the expert meeting was to advance understanding of the importance of the need to base development of the post-2020 global biodiversity framework on available evidence. Participants considered what evidence was needed, what the primary sources of such evidence were, and whether there were ways in which the delivery and use of the evidence could be improved.

* CBD/SBSTTA/22/1.

** CBD/SBI/2/1.

4. This information document draws on the discussion during the expert meeting, and on the background materials made available to participants in advance of the meeting as a basis for discussion. The document provides options for consideration by Parties and partner organizations for increasing access to evidence that supports the development of a post-2020 global biodiversity framework. Prior to submission, this document was made available to meeting participants for review. The document is presented in the form and language in which it was received by the Secretariat of the Convention on Biological Diversity.

Framing the Future for Biodiversity

Effective use of knowledge in developing a post-2020 global biodiversity agenda

Executive Summary

An expert meeting was convened from 10-12 April 2018 in Cambridge, United Kingdom with the aim of supporting preparations for developing a post-2020 global biodiversity framework. The objective of the expert meeting was to enhance understanding of the need to base development of a post-2020 global biodiversity framework on available evidence. The expert meeting brought together invited experts from 25 countries, including a number of members of the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biological Diversity (CBD). Experts were deliberately chosen to cover a range of different backgrounds and experiences.

During preparation for the expert meeting five key questions were identified as being critical for development of a post-2020 global biodiversity framework: (a) what pathways will lead us to (or away from) the 2050 Vision already agreed by Parties; (b) what scale and possible mixes of policies will deliver these pathways; (c) which policy instruments and tools will be most effective in delivering these policies; (d) what sort of framework would motivate such policies and interventions being put in place; and (e) how can monitoring, indicators and reporting promote implementation and accountability?

These five questions were used as a basis for initial identification of the types of evidence that might be needed to support for development of a post-2020 global biodiversity framework. Then for each of these evidence types three questions were addressed in order to generate a better understanding of how evidence could be used more effectively: (a) what evidence is needed; (b) what are the primary sources of such evidence; and (c) are there ways in which delivery and use of the evidence could be improved?

Discussion in the expert meeting provided the basis for identifying 26 “options” or opportunities for further action to inform the processes of developing a post-2020 global biodiversity framework. Each of these “options” are actions that could be undertaken now to inform development of a post-2020 global biodiversity framework. They are clustered under the following ten headings:

- Scenario analysis and modelling
- Findings from major assessment processes
- ‘Big ideas in science or associated with campaigns
- Achievement of transformational change
- Alignment with other intergovernmental agreements and processes
- Effectiveness of different policies and policy mixes, and of interventions for delivering policy
- Effectiveness of different approaches for mobilizing resources
- Lessons learnt from previous experience with targets
- Lessons learnt from use of indicators
- Lessons learnt from review and reporting processes

This information document provides options for consideration by Parties and partner organizations for increasing access to evidence that supports the development of a post-2020 global biodiversity framework. It draws on the very substantive discussions during the expert meeting, and on the background materials made available to participants in advance of the meeting as a basis for discussion (available at <http://wcmc.io/5641>). Prior to submission a draft of this information document was made available to all meeting participants for review.

The expert meeting was convened by the Cambridge Conservation Initiative, which also provided financial support. Additional financial support was provided by UN Environment, the Government of the United Kingdom and Northern Ireland, the Joint Nature Conservation Committee and the Royal Society for the Protection of Birds (RSPB), and additional technical support by the Secretariat of the Convention on Biological Diversity, and WWF UK. Preparation for the meeting was led by the UN Environment World Conservation Monitoring Centre (UNEP-WCMC), the International Union for Conservation of Nature (IUCN), BirdLife International, RSPB, and academics from the University of Cambridge.

Introduction

1. In 2020, at the 15th session of the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD), governments are likely to adopt a new global biodiversity framework to succeed the *Strategic Plan for Biodiversity 2011-2020*¹ and its *Aichi Biodiversity Targets*. Although the process for developing this framework has yet to be agreed, signs are that a broad consultative process amongst governments and other stakeholders will be agreed, and that steps will be taken to make the resulting strategy – whatever form it takes – widely recognised by intergovernmental processes and stakeholders across a range of sectors.
2. According to current trajectories, the *Aichi Biodiversity Targets* will not be met in full,² although they have certainly encouraged renewed efforts such as in further developing protected area systems.³ In considering a post-2020 global biodiversity framework Parties may need to assess why the Aichi Biodiversity Targets will not be met in full and why some targets (or elements of them) seem to have been more achievable than others, and to examine successes and failures in addressing the targets so as to learn lessons from previous experiences. It is in this context that the Cambridge Conservation Initiative (CCI)⁴ convened an expert meeting, with the aim to advance recognition of the importance of a broad and accessible evidence base for underpinning development of a post-2020 global biodiversity framework.
3. The expert meeting was held in Cambridge, United Kingdom from 10-12 April 2018, and brought together a range of key players involved in different aspects of developing and implementing plans and strategies for the conservation and sustainable use of biodiversity, and in reviewing their implementation. Participants came from 25 countries, and included members of both the CBD Secretariat and the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA). A list of participants is provided in Annex 1. Experts were deliberately chosen to cover a range of different backgrounds and experiences.
4. The expert meeting focused on encouraging and facilitating discussion amongst participants on the evidence base needed for underpinning development of a post-2020 global biodiversity framework. To support this a range of materials were made available in advance identifying the issues and exploring some of them further. These materials are available at <http://wcmc.io/5641>. The information document draws on both the discussions during the meeting and on the materials made available in advance. Before posting, a draft of this information document was made available to meeting participants for review. The advance materials and notes from meeting discussions remain available to inform any follow up activities.
5. Preparation for the meeting was led by the UN Environment World Conservation Monitoring Centre (UNEP-WCMC), BirdLife International, the International Union for Conservation of Nature (IUCN), the Royal Society for the Protection of Birds (RSPB), and academics from the University of Cambridge, with the support of WWF UK. Initial funding was provided by the CCI Collaborative Fund, and additional advice and financial support was provided by UN Environment, the UK Department for Environment, Food and Rural Affairs (Defra), the CBD Secretariat, the UK Joint Nature Conservation Committee (JNCC) and RSPB.

The 2050 Vision

6. The *Strategic Plan for Biodiversity 2011-2020* is based on a vision of "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". Long-term strategic directions to the 2050 Vision for biodiversity will be considered at COP 14 later this year, and SBSTTA has already considered scenarios for the 2050 Vision.⁵

¹ The Strategic Plan for Biodiversity 2011-2020 was adopted by the Parties through [decision X/2](#)

² See for example the fourth edition of the [Global Biodiversity Outlook](#) and document [CBD/SBI/2/2/Add.2](#)

³ See for example document [UNEP/CBD/COP/13/INF/17](#)

⁴ The [Cambridge Conservation Initiative](#) is a collaboration between the University of Cambridge and leading internationally-focused biodiversity conservation organisations clustered in and around Cambridge, UK. These organizations are BirdLife International, British Trust for Ornithology, the Cambridge Conservation Forum, Fauna and Flora International, the International Union for Conservation of Nature, the Royal Society for Protection of Birds, TRAFFIC International, the Tropical Biology Association, and UNEP-WCMC

⁵ See SBSTTA [recommendation XXI/1](#)

7. Recognising the importance of the 2050 Vision in framing development of a post-2020 global biodiversity framework, participants at the expert meeting suggested that:

- a) It would be helpful to develop a better, common, qualitative, and communicable understanding of the meaning of the different elements of the 2050 Vision, drawing on existing guidance wherever possible.
- b) An improved understanding of the 2050 Vision will provide better context for developing a post-2020 global biodiversity framework as an essential part of the trajectory for achieving the vision, while at the same time supporting Parties more directly through providing the basis for a logical framework approach on progress towards the 2050 Vision.
- c) In developing this understanding it may be helpful to consider other relevant approaches adopted by governments, such as the IPBES Conceptual Framework⁶ developed by Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and to also draw on current and future IPBES documents relating to conceptualization of multiple values.⁷
- d) Greater clarity on what is needed to achieve the 2050 Vision will help negotiators during the process of developing a post-2020 global biodiversity framework, and would also help those providing evidence to support the negotiators, as well as assisting with communications messaging that can forge a shared sense of ambition.
- e) When considering the pathways to the 2050 Vision, thought needs to be given to the value and importance of recognising intermediate stages or steps along the route to 2050 and how these should be recognised in the post-2020 global biodiversity framework and used in promoting and facilitating its implementation.

8. In addition to discussion at COP 14 based on currently available evidence, further consideration of the 2050 Vision and pathways for achieving it will also be supported by the IPBES global assessment which is due for completion at the IPBES Plenary in May 2019.⁸

Process for developing a post-2020 global biodiversity framework

9. The purpose of the expert meeting was to consider the evidence needed in order to support development of a post-2020 global biodiversity framework. However, participants also identified the following as key issues for enhancing implementation.

- a) Developing and agreeing indicators for assessing progress in delivering a post-2020 global biodiversity framework should ideally be carried out over the same period as developing and agreeing the framework, so that the indicators can then help inform implementation from day one.
- b) Implementation of a post-2020 global biodiversity framework would be enhanced if closely aligned with a capacity-building strategy and resource mobilization guidance or strategy developed and agreed over the same period, as is implied by previous COP decisions.⁹
- c) Following adoption of a post-2020 global biodiversity framework, early agreement on both national reporting guidance for Parties and on the communications strategy, would significantly assist Parties in implementation.

10. In addition at several points in discussion the potential value of developing a knowledge generation or research strategy was also raised. This would have the benefit of clearly identifying what knowledge was needed in order to support implementation of a post-2020 global biodiversity framework, and could potentially be used to information science strategy and funding processes and the work programmes of processes such as IPBES.

⁶ The IPBES Conceptual Framework was adopted by the IPBES Plenary through decision [IPBES-2/4](#) and is annexed to that decision

⁷ IPBES has developed a “*preliminary guide regarding diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services*” (see annex III to document [IPBES/4/INF/13](#)) and is initiating a methodological assessment (see annex VI to decision [IPBES-4/1](#) for the approved scoping document)

⁸ The scoping document for the IPBES global assessment is in Annex I of decision [IPBES-4/1](#)

⁹ See COP [decision XII/31](#) and [decision XIII/23](#)

Key questions to be addressed in identifying evidence needs

11. During preparation for the expert meeting five key questions were identified as being critical for development of a post-2020 global biodiversity framework. The five questions were: (a) what pathways will lead us to (or away from) the 2050 Vision already agreed by Parties; (b) what scale and possible mixes of policies will deliver these pathways; (c) which policy instruments and tools will be most effective in delivering these policies; (d) what sort of framework would motivate such policies and interventions being put in place; and (e) how can monitoring, indicators and reporting promote implementation and accountability?

12. These question were used as a basis for initial identification of the types of evidence needed, and then for each of these evidence types three questions were addressed both in the development of advance material and during the meeting, in order to generate a better understanding of how evidence could be used more effectively: (a) what evidence is needed; (b) what are the primary sources of such evidence; and (c) are there ways in which delivery and use of the evidence could be improved? This can then provide the basis for identifying opportunities for further action to inform the processes of developing a post-2020 global biodiversity framework.

13. Each of the “options” identified in the following sections are actions that could be undertaken now to inform development of a post-2020 global biodiversity framework. Some could then be built on further in the future in order to also support various aspects of implementation, but this was not the focus of the expert meeting.

Types of evidence considered

14. Drawing on the discussions at the meeting and the preparation beforehand, the following types of evidence have been identified. It is important to note that these are not necessarily discrete, mutually exclusive entities, and this fact may need to be taken into account when identifying any further steps to take.

a) Scenario analysis and modelling

15. SBSTTA-21 has already considered scenarios for addressing the 2050 Vision, and the pre-session document and associated information documents provide a valuable summary of the current situation with regard to needs, evidence and next steps.¹⁰ These documents draw on and are complemented by the IPBES thematic assessment on scenarios and models of biodiversity and ecosystem services,¹¹ and the follow up to this work. These documents also recognise the value of scenarios and models in developing an understanding of the effectiveness and implications of different policies and policy mixes.

16. SBSTTA-21 also identified a number of areas where the scientific and other relevant communities working on scenarios and related assessments can address issues relevant to the development of a post-2020 global biodiversity framework,¹² including several critical elements that are currently absent from scenario/pathway studies, including better integration of social aspects.

17. Additional evidence that could potentially be made available to support development of a post-2020 global biodiversity framework include:

Option 1: Meta-analysis of the different scenario and modelling initiatives underway that are considering pathways to the future, as a basis for identifying key decisions to take to lead towards the 2050 Vision.

Option 2: Use of scenario analysis and modelling during the development of a post-2020 global biodiversity framework (through analysis or in real time using simple tools) to explore potential impacts – including ‘winners’ and ‘losers’ – of different policy mixes and different targets individually and in combination, and to ‘stress test’ targets.

¹⁰ See documents [CBD/SBSTTA/21/2](#), [CBD/SBSTTA/21/INF/2](#), [CBD/SBSTTA/21/INF/3](#), [CBD/SBSTTA/21/INF/4](#) and [CBD/SBSTTA/21/INF/18](#)

¹¹ See <https://www.ipbes.net/assessment-reports>

¹² See SBSTTA [recommendation XXI/1](#)

Option 3: Use of scenario analysis and modelling approaches to develop an improved understanding of the extent to which biodiversity and ecosystem services are needed to deliver the Sustainable Development Goals (SDGs)¹³ and the objectives of the Paris Agreement.¹⁴

b) Findings from major assessment processes

18. A range of major assessment processes deliver reports and findings relevant to addressing the objectives of the Convention. These include, but are not restricted to, the reports from IPBES, the Intergovernmental Panel on Climate Change, the Commission on Genetic Resources for Food and Agriculture, the Global Forest Resources Assessment, the World Ocean Assessment, the IUCN Red List of Threatened Species¹⁵ and the Global Environmental Outlook.¹⁶ These include global, regional, thematic and methodological assessments, such as the regional assessments and the thematic assessment on land degradation and restoration recently completed by IPBES.¹⁷ There are also numerous other more narrowly focused assessment processes, one-off assessments and synthesis reports. The majority of these assessments and reviews identify gaps in evidence that need to be addressed.

19. SBSTTA reviews the findings of key assessment reports, identifying the implications of their findings.¹⁸ Assessment reports and their findings also contribute to the Global Biodiversity Outlook (GBO),¹⁹ which also draws on national reports, indicators and other sources of evidence. GBO-5 will draw *inter alia* on the IPBES regional assessments and the IPBES global assessment.²⁰

20. Additional evidence that could potentially be made available to support development of a post-2020 global biodiversity framework include:

Option 4: A synthesis of the high level messages and key findings from biodiversity-related assessments, specifically the findings that are relevant to the development of a post-2020 global biodiversity framework, which can be used as a resource to inform negotiators.

Option 5: Incorporating into the above synthesis findings of assessments from outside the biodiversity and ecosystem services community, including for example the World Economic Forum Global Risks Report which is developed each year,²¹ addressing both risks and their interconnections.

21. Major assessments such as IPBES also relate to other lines of evidence addressed in this document. For example, they draw on scenarios (section a), they use indicators (section i), and they look at the impacts of a range of different policies and interventions (section f). The options identified therefore possibly also contribute to assessment of the effectiveness of different policy options in particular.

c) 'Big ideas' in science or associated with campaigns

22. There are 'big ideas' arising from scientific exploration that are relevant to development of a post-2020 global biodiversity framework (such as the concept of *planetary boundaries*),²² and there are also major campaigns that draw to a greater or lesser extent on scientific evidence as a basis for arguing their case (such as *Nature Needs Half*).²³ Other big issues known to be important and relevant include both *teleconnections* and *leakage*.^{24,25} As

¹³ See UN document [A/RES/66/288 The Future We Want](#)

¹⁴ See UNFCCC [Paris Agreement](#)

¹⁵ See www.iucnredlist.org (or similar knowledge products at www.keybiodiversityareas.org, www.protectedplanet.net)

¹⁶ See www.ipbes.net, www.ipcc.ch, www.fao.org/nr/cgrfa/cgrfa-home, www.fao.org/forest-resources-assessment, www.worldoceanassessment.org and web.unep.org/geo

¹⁷ See for example <https://www.ipbes.net/event/ipbes-6-plenary>

¹⁸ See for example CBD COP [decision XIII/15](#) on the implications of the IPBES thematic assessment on pollinators

¹⁹ See <https://www.cbd.int/gbo/>

²⁰ See SBSTTA [recommendation XXI/5](#) on the fifth edition of the Global Biodiversity Outlook

²¹ See www.weforum.org/reports/the-global-risks-report-2018

²² See <http://www.stockholmresilience.org/research/planetary-boundaries.html>

²³ See www.natureneedshalf.org

²⁴ See for example Schröter *et al* 2018 (www.sciencedirect.com/science/article/pii/S221204161730606X)

²⁵ See for example Moilanen and Laitila 2016 (www.ncbi.nlm.nih.gov/pmc/articles/PMC4737393/)

work proceeds on development of a post-2020 global biodiversity framework, there are likely to be increasing calls for those involved to address some of these 'big ideas' and issues in the new framework.

23. There are also evolving approaches to science and monitoring that have the potential to revolutionise availability of information to support implementation (such as citizen science)²⁶ or to lead to rethinking on management approaches (such as *dynamic ocean management*)²⁷ or to increase access to data and information through data portals,²⁸ and it may be appropriate to consider some of these when addressing supporting and enabling activities for implementing a post-2020 global biodiversity framework. It is also critical to consider different *world views* and their implications.²⁹

24. Additional evidence relating to 'big ideas' that could potentially be made available to support development of a post-2020 global biodiversity framework include:

Option 6: An annotated list of 'big ideas' that may be relevant to those developing a post-2020 global biodiversity framework, clustering these so as to help in identifying potential complementarities amongst the different 'big ideas'.

Option 7: An assessment of the strengths and weaknesses of a range of these 'big ideas' and their implications, collating evidence and examples, and identifying how they could contribute to development of a post-2020 global biodiversity framework. For example this might be done for all of the 'big ideas' concerned with area-based conservation.

d) Achievement of transformational change

25. SBSTTA-21 referred to the need for "transformational change" in order to achieve the 2050 Vision.³⁰ This issue has also been discussed during recent Bogis-Bossey Dialogue meetings,³¹ and will be the subject of a seminar organized by the CBD Secretariat in the margins of SBSTTA-22 and SBI-2.³² At these meetings, and during discussions in the expert meeting, various examples of transformational change have been suggested, and the reasons why these have been successful explored. These reasons include the available evidence base, communications strategies, funding investments, and processes for engagement of the public and key stakeholders, although the 'trigger factors' for change varied from one issue to another.

26. Questions have been raised over whether achievement of the 2050 Vision needs transformational change *per se*, or whether the focus should be on achieving systemic change where a combination of factors progressively add together to create a change in the system. Indeed the increased focus under the Convention on mainstreaming³³ and on the importance of biodiversity and ecosystem services in achieving the SDGs³⁴ and Paris Agreement are major steps in this direction that can be built upon further in developing a post-2020 global biodiversity framework. In major part, the aim of mainstreaming is to achieve transformational change in other sectors (in particular those sectors driving biodiversity loss) through increased awareness and understanding at all relevant levels, and with all major stakeholders, including understanding of who can do what to achieve change. To a large extent this is about turning the argument around so that it is clear that in order to achieve the development, climate and disaster risk reduction agendas then we must pay attention to biodiversity and ecosystem services and achievement of the 2050 Vision.

27. Additional evidence that could potentially be made available to support development of a post-2020 global biodiversity framework includes:

Option 8: Further exploration of examples of transformational and systemic change in other sectors in order to better understand the need and opportunity for transformational or systematic change, and what

²⁶ See *Biodiversity and Conservation*, volume 14, [issue 11](#) for a range of case studies.

²⁷ See for example Maxwell *et al* 2015 (www.sciencedirect.com/science/article/pii/S0308597X15000639)

²⁸ Examples include Global Forest Watch (www.globalforestwatch.org) and IBAT (www.ibatforbusiness.org)

²⁹ See for example the IPBES Conceptual Framework (annexed to decision [IPBES-2/4](#) of the IPBES Plenary)

³⁰ See SBSTTA [recommendation XXI/1](#)

³¹ See for example <https://www.cbd.int/bogis-bossey-2017/>

³² See [Notification 2018-043](#)

³³ As evidenced by the [Cancun Declaration on Mainstreaming](#) and COP [decision XIII/3](#)

³⁴ See document [CBD/SBSTTA/21/2/Add.1](#)

is needed to bring it about, and to identify whether there are particular issues that should be considered as a post-2020 global biodiversity framework is developed.

Option 9: Improved understanding of how effective communication in other sectors has led to different approaches or a more coordinated approach to achieving change, as input both to development of the post-2020 global biodiversity framework and any associated communication strategy. This includes exploring ways to communicate biodiversity as something that is relevant to all sectors of society.

e) Alignment with other intergovernmental agreements and processes

28. As with the *Strategic Plan for Biodiversity 2011-2020*, it is expected that a post-2020 global biodiversity framework will be relevant across the biodiversity-related conventions and processes. It is also broadly accepted that any post-2020 global biodiversity framework will need to be aligned with other agreements and frameworks adopted by governments,³⁵ including the 2030 Agenda for Sustainable Development,³⁶ the UNFCCC Paris Agreement³⁷ and the Sendai Framework for Disaster Risk Reduction,³⁸ and possibly also the UN Strategic Plan for Forests 2017-2030.³⁹ However exactly what this means and how it will be achieved has yet to be identified, although there are various reports illustrating the relationships between the Aichi Biodiversity Targets and the SDGs.⁴⁰ It may also be worth considering how the revised global framework may relate to other major issues, such as human rights, particularly in the context of the UN Framework Principles on Human Rights and the Environment.⁴¹

29. Additional evidence that could potentially be made available to support development of a post-2020 global biodiversity framework include:

Option 10: As a post-2020 global biodiversity framework is developed, a review of the relationships between elements of the framework and the objectives and activities of other biodiversity-related conventions will help to ensure a close alignment.

Option 11: An analysis/synthesis of actual and potential relationships between different intergovernmental agendas may help negotiators to more clearly understand potential relationships, and what this means for development of a post-2020 global biodiversity framework. This might include the 2030 Agenda, Paris Agreement and Sendai Framework, amongst others.

Option 12: A review of approaches to developing and implementing targets and strategies that have been taken by other intergovernmental agreements and processes, so as to enable lessons to be learnt that might help to increase ambition and success in implementation of a post-2020 global biodiversity framework.

f) Effectiveness of different policies and policy mixes, and of interventions for delivering policy

30. It is expected that a post-2020 global biodiversity framework will encourage the uptake of particular policies and policy mixes for moving towards the 2050 Vision, in much the same way that the *Strategic Plan for Biodiversity 2011-2020* encouraged, for example, development of national protected area systems. The way in which the framework is phrased will have an impact on both policy choices, and on interventions. Development of a post-2020 global biodiversity framework should therefore be informed by evidence of the effectiveness of different policies and policy mixes, and the appropriateness and effectiveness of different policy options.

³⁵ See document [CBD/SBSTTA/2/17](#)

³⁶ UN General Assembly resolution [A/RES/70/1](#) Transforming our world: the 2030 Agenda for Sustainable Development

³⁷ The text of the Paris Agreement can be found at https://unfccc.int/sites/default/files/english_paris_agreement.pdf

³⁸ The text of the Sendai Framework can be found at www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf

³⁹ See <http://www.un.org/esa/forests/documents/un-strategic-plan-for-forests-2030/index.html>

⁴⁰ See for example documents [CBD/SBSTTA/21/2/ADD1](#), [UNEP/CBD/COP/13/10/Add.1](#), [UNEP/CBD/SBSTTA/19/INF/9](#), and Shultz et al (2017) *The 2030 Agenda and ecosystems – a discussion paper on the links between the Aichi Biodiversity Targets and the Sustainable Development Goals* published by the Stockholm Resilience Centre (see http://swed.bio/wp-content/uploads/2016/11/The-2030-Agenda-and-Ecosystems_spread.pdf).

⁴¹ See the [Universal Declaration on Human Rights](#), www.ohcr.org and www.ohchr.org/EN/HRBodies/HRC and UN General Assembly documents [A/HRC/34/49](#), [A/HRC/37/58](#) and [A/HRC/37/59](#) (the last of which is the Framework Principles).

31. Information on the effectiveness of different policy options can in part be derived from scenarios and assessments and explored using models (see the sections above). At the national level there is also valuable information in national reports and to some extent in NBSAPs, and this and other has been synthesised in numerous CBD documents and information documents on both thematic and cross-cutting issues.⁴² Given this is already available in documents, Parties will need to consider whether the existing information is appropriate to their needs in developing a post-2020 global biodiversity framework.

32. In addition to the options already identified in earlier sections, and in the section below on review and reporting, the following types of evidence could potentially provide further support to development of a post-2020 global biodiversity framework:

Option 13: Set of options on how mainstreaming might be better addressed in a post-2020 global biodiversity framework, recognising it as a major approach for working with other sectors to achieve change. This would draw on evidence of what has worked and what has not to date.

Option 14: Rapid review of the effectiveness of further policy options or interventions to inform development of a post-2020 global biodiversity framework. This could address, for example, issues such as incentives or sustainable use which have not been substantively addressed recently in the context of the CBD.

Option 15: Synthesis of the findings and evidence presented in assessment reports relating to the effectiveness (or otherwise) of different policy options and interventions (potentially building on options 4 and 5 above).

33. In addition to more immediate needs for evidence to support the development of a post-2020 global biodiversity framework, participants in the expert meeting were concerned that there were insufficient opportunities for sharing of experience and lessons learnt about the effectiveness or otherwise of different policy options. There is need over the longer term to increase access to lessons learnt on the effectiveness of different interventions,⁴³ and for practitioners to be able to more readily share experience. There is also need for a variety of reasons to put in place effective monitoring programmes as an essential part of implementation.

g) Effectiveness of different approaches for mobilizing resources

34. Essential to implementation at all levels is the successful mobilization of resources, so implementation of a post-2020 global biodiversity framework would be enhanced if closely aligned with resource mobilization guidance and support, and/or a resource mobilization strategy. It has already been agreed by COP that something along these lines will be developed and agreed over the same period leading up to COP-15,⁴⁴ although the means for doing this as yet remain undefined.

35. There are already some fairly broad estimates of the range of resources required to achieve all targets of the *Strategic Plan for Biodiversity 2011-2020*,⁴⁵ including some fairly detailed estimates for some of the targets. Multilateral⁴⁶ and bilateral financial flows for biodiversity from developed to developing countries is fairly well known due to OECD's Rio marker tracking system.⁴⁷ In addition some countries are gaining a far better understanding of biodiversity-related resourcing and resourcing needs through their NBSAPs and their financial reports to the CBD,⁴⁸ as well as through projects such as the BIOFIN Initiative established by the United Nations Development Programme.⁴⁹

⁴² See for example [UNEP/CBD/COP/13/INF/17](#) on protected areas, [UNEP/CBD/SBSTTA/20/INF/3](#) on ecosystem-based adaptation, [UNEP/CBD/SBSTTA/19/4](#) on tools to evaluate effectiveness of policy instruments

⁴³ Specific tools were mentioned such as the [NBSAP Forum](#), [PANORAMA](#) and [www.conservationevidence.com](#)

⁴⁴ See COP [decision XII/31](#)

⁴⁵ See for example the various reports and technical documents produced by the CBD High Level Panel at [www.cbd.int/financial/hlp.shtml](#) and the review of funds needed for GEF-7 in [UNEP/CBD/COP/13/12/ADD2](#)

⁴⁶ See for example [www.thegef.org](#)

⁴⁷ See http://www.oecd.org/dac/environment-development/BIODIVERSITY-RELATED_FINANCE_FEBRUARY_2015.pdf

⁴⁸ See [UNEP/CBD/COP/13/11/Rev.1](#)

⁴⁹ See [www.biodiversityfinance.net](#)

36. There are also some approaches taken to calculate funding needs for the implementation of NBSAPs or for projects of developing countries to inform the GEF replenishment.⁵⁰ In general, funding needs assessments or data on spending for different biodiversity projects and activities at the national, regional or local level do exist, but are scattered and not compiled in one place. A full picture of both funding needs and spending to achieve biodiversity targets is currently not available, although it appears that at all levels funding needs are higher than current spending and that the majority of Parties struggle for adequate funding to achieve the targets set.

37. Additional evidence that could potentially be made available to support development of a post-2020 global biodiversity framework and an associated resource mobilization strategy include:

Option 16: Synthesis of existing evidence relating to resource mobilization need and the successful use of funding, including identifying resource needs and their breakdown by desired outcomes, and exploring the potential 'ingredients' for successful resource mobilization in terms of actions that Parties and the international community need to take to ensure there is a step change in how biodiversity is perceived and invested in, especially from outside the biodiversity sector. *This could be achieved, for example, through establishment of a new high level panel or similar mechanism.*

38. In addition to more immediate needs for supporting development of a resource mobilization strategy to support implementation of a post-2020 global biodiversity framework, participants in the expert meeting also flagged the need to develop mechanisms to promote and facilitate the sharing of experience, including stories to inspire others and to show that change is both possible and beneficial. They also flagged the need to give further consideration to 'greening' mainstream finance and business activities, and the levers that could be used to deliver this.

h) Lessons learnt from previous experience with targets

39. It is important that those developing a post-2020 global biodiversity framework learn lessons from the experience of implementing the *Strategic Plan for Biodiversity 2011-2020* and *Aichi Biodiversity Targets* adopted in 2010. These targets have provided a framework that has been widely used at national and international levels and by other stakeholders, and which has supported promotion of activities and mobilization of resources.

40. An assessment of the effectiveness of the framing and articulation of the current targets has been carried out through review of the scientific literature and carrying out an expert questionnaire. The results were then compared to global assessments of progress to determine if a relationship between SMART characteristics and progress towards the targets was present. This review distils lessons learnt that might be considered in developing any new targets or milestones.⁵¹ The headline results will be available in an information document provided to SBSTTA-22 and SBI-2,⁵² and the full results published in a journal. It is recognised that this review has not fully tapped the broad experience amongst those working on the development of NBSAPs and national targets, and that this could usefully be considered further.

41. There is also significant experience of setting targets and milestones in other sectors, ranging from the broadly accepted target of reducing global warming to 2°C⁵³ to national and regional targets in (for example) the health or transport sectors⁵⁴ or targets in the business sector (which is where use of SMART targets originated).⁵⁵ Lessons have been learnt on issues such as the efficacy of different types of targets, the relationship between targets and indicators, the packaging and communication of targets, and engagement of stakeholder communities in addressing targets, and different approaches for encouraging achievement of targets (for example the 'nationally determined contributions' approach under the Paris Agreement).

⁵⁰ See CBD COP document [UNEP/CBD/COP/13/12/ADD2](#)

⁵¹ This review is being carried out by RSPB and BirdLife International, with financial support from the UK Government

⁵² The review will be available as an information document, but the reference is not currently available

⁵³ See for example Morseletto et al (2016) *Governing by targets: Reductio ad unum and evolution of the two-degree climate target*. International Environmental Agreements: Politics, Law and Economics. DOI: 10.1007/s10784-016-9336-7

⁵⁴ See for example [ec.europa.eu/transport/road_safety/specialist/knowledge/grst/why_set_targets/do_targets_work](#)

⁵⁵ See for example Doran, G.T. (1981). There's a S.M.A.R.T. way to write management's goals and objectives. *Management Review*. AMA Forum. 70(11):35-36.

42. Additional evidence that could potentially be made available to support development of a post-2020 global biodiversity framework include:

Option 17: Synthesis of lessons learned from national experiences in translating the Aichi strategic goals and targets within a national context when developing National Biodiversity Strategies and Action Plans (NBSAPs), or similarly within regional strategies, drawing *inter alia* on experience from Parties, the NBSAP Forum and the GEF-funded “Global NBSAP Support” project.

Option 18: Extension of the assessment reported on to SBSTTA/SBI on the effectiveness of the framing and articulation of the Aichi Biodiversity Targets, to draw on additional information sources, in particular through considering literature in other languages (only English language literature has been reviewed to date), and extending the pool of questionnaire responses. The aim is to further refine the lessons learnt in addressing the Aichi Biodiversity Targets, so as to better understand which Aichi Targets were more successful and what were the success factors

Option 19: Review of different potential options for frameworks for delivery of the 2050 Vision, including identification of pros and cons. This would draw upon existing experience of setting targets, identifying milestones, encouraging mainstreaming, and otherwise encouraging change trajectories, and would include investigating hierarchies of targets and indicators as discussed at the expert meeting.

Option 20: Review of existing experience of encouraging nationally determined contributions in addressing international targets, and the likely effectiveness (or otherwise) of the approach. This might include careful consideration of the relationship between targets and indicators, and opportunities for the sum of nationally determined contributions to support delivery of global targets.

j) Lessons learnt from use of indicators

43. It is important to identify and develop indicators at the same time as developing the global biodiversity framework so that: (a) steps to review progress in implementation can begin straight away; and (b) indicators can help inform development of targets/milestones and associated storylines, and *vice versa*. These can be built on existing indicators identified by the CBD⁵⁶ (many of which are already being used in the fifth edition of the Global Biodiversity Outlook⁵⁷ and the IPBES global assessment⁵⁸), although this should clearly not constrain the process. Efforts are already under way under the Biodiversity Indicators Partnership to consider how the indicators used by the CBD relate to those used by other intergovernmental agreements and processes.⁵⁹

44. The template and guidelines for the sixth national report requests information on the indicators that have been used for assessing progress in achieving targets.⁶⁰ The Biodiversity Indicators Partnership has worked to support Parties in developing indicators for national targets as part of NBSAP updating,⁶¹ and a review on national approaches to assessing progress was carried out in 2015.⁶² In addition organizations such as the UN Statistical Commission,⁶³ the UN economic commissions⁶⁴ and the Organization for Economic Co-operation and Development⁶⁵ provide support to the work of national statistics offices and national efforts to compile statistics, which can add to any guidance developed as a result of this experience.

45. Lessons can also be learnt from other processes (such as on human rights⁶⁶) both with respect to supporting development of international indicator frameworks and guidance for development of indicators at the national

⁵⁶ See COP [decision XIII/28](#) on indicators for the Aichi Biodiversity Targets, and www.bipindicators.net

⁵⁷ See SBSTTA [recommendation XXI/5](#) on considerations for preparation of GBO-5

⁵⁸ See annex III of information document [IPBES/5/INF/5](#) reporting on work on knowledge and data

⁵⁹ See for example www.bipindicators.net and <https://www.bipindicators.net/crossmapping>

⁶⁰ See COP [decision XIII/27](#) on national reporting, and in particular the annexed guidelines

⁶¹ See for example www.bipindicators.net/system/resources/files/000/000/409/original/902_%281%29.pdf?1480337939

⁶² See [UNEP/CBD/ID/AHTEG/2015/INF/2](#) prepared for AHTEG on indicators for *Strategic Plan for Biodiversity 2011-2020*

⁶³ See <https://unstats.un.org>

⁶⁴ See for example https://www.unecce.org/stats/stats_h.html or <https://www.uneca.org/acs>

⁶⁵ See <http://stats.oecd.org/>

⁶⁶ See www.ohchr.org/EN/Issues/Indicators/Pages/documents.aspx

level. In addition it is important to consider how any indicators developed for a post-2020 global biodiversity framework will relate to indicators developed for tracking achievement of the SDGs.⁶⁷

46. Options for providing further evidence to support development (and subsequent implementation) of a post-2020 global biodiversity framework include the following, working as appropriate with the Biodiversity Indicators Partnership:

Option 21: Engage closely with those working on biodiversity-related indicators at the global level during the process for developing a post-2020 global biodiversity framework, so as to help ensure parallel development of an indicator framework, and the integration of indicators and storylines into a post-2020 framework.

Option 22: Increased understanding of the relationship between the global-scale indicators currently used by the Convention and those used to assess progress in achieving goals and targets of other global intergovernmental conventions and processes, as part of efforts to increase alignment with other intergovernmental conventions and processes.

Option 23: Update of the 2015 review of national approaches to assessing progress towards the Aichi Biodiversity Targets, drawing *inter alia* on the sixth national reports and experience gained during development of revised NBSAPs.

Option 24: Further guidance on the use of indicators in NBSAPs to support national implementation, aligned with a post-2020 global biodiversity framework, drawing on experience of using indicators at the national level and building links with national statistical offices and reporting on achievement of SDGs.

j) Lessons learnt from review and reporting processes

47. It will help Parties with future reporting if the basic formats and processes for reporting are identified at the same time as a post-2020 global biodiversity framework is adopted. Consistency of format over time allows for more stable reporting processes, and increased opportunity for alignment with other reporting processes. It also makes the task of developing and maintaining online tools for report submission, synthesis and analysis more straightforward, and will aid understanding of how to effectively use indicators in reporting over the list of the post-2020 global biodiversity framework.

48. The sixth national reporting process is currently underway with a deadline for completion by the end of 2018. Various syntheses of national reports have been produced in the past,⁶⁸ and national reports have been drawn on when drafting successive editions of the Global Biodiversity Outlook and progress reports for COP and subsidiary bodies. Following each of the five earlier reporting rounds, experience of reporting has been used to inform subsequent reporting,⁶⁹ and it is assumed that this will happen again.

49. Parties have requested the CBD Secretariat, in collaboration with the secretariats of the other biodiversity-related conventions and Rio conventions and UNEP-WCMC, to explore options for enhancing synergy on national reporting amongst the convention, including by considering common reporting modules on shared issues, and harmonization of tools for national reporting.⁷⁰ This will build on work already undertaken to consider alignment and common resources,⁷¹ and discussions in various fora on online reporting tools.

50. Additional evidence that could potentially be made available to support development of a post-2020 global biodiversity framework and its subsequent implementation include:

Option 25: Review of experience with the CBD sixth national reporting round following its completion, in order to learn lessons (as has been done in previous rounds). This would cover not only the reporting process itself including the templates and supporting materials and processes, but also the value of and

⁶⁷ The global indicator framework is adopted in the annex to UN General Assembly resolution [A/RES/71/313](#), but technical work is still ongoing under the leadership of the UN Statistical Commission.

⁶⁸ See <https://www.cbd.int/reports> and <https://www.cbd.int/reports/syntheses.shtml>

⁶⁹ See for example document [UNEP/CBD/SBI/1/11](#)

⁷⁰ See COP [decision XIII/27](#) on national reporting (see paragraph 9)

⁷¹ See [UNEP/CBD/COP/13/INF/24](#) and the [Resource Manual](#) for the sixth national reports

ways in which the reported information is used. This could be supplemented with information on lessons learnt from reporting processes under the other biodiversity-related conventions.

Option 26: Review of potential reporting options, including identification of pros and cons. This would include consideration of alignment with other reporting processes, online reporting and options for more dynamic or 'real time' reporting, and potential tracking of national pledges. It would also identify the extent to which further capacity development might be needed.

51. In addition, participants at the expert meeting recognised the value of continuing to promote and facilitate voluntary peer review of implementation,⁷² and recognised the potential value of national audit agencies in reviewing national policies with respect to the environment.⁷³ Review of implementation and lessons that can be learnt is something that needs working on further over the longer term.

Other possible types of evidence

52. In order to reduce the possibility that something obvious had been omitted, expert meeting participants were asked to also consider whether there were types of evidence that had not been covered in the material developed in advance of the meeting. Some of these issues were picked up during the meeting, but the following may also warrant further consideration:

- a) Evidence of the risks and potential consequences associated with inaction could be of value both in informing development of a post-2020 global biodiversity framework and an associated resource mobilization strategy. It could also be a major input to a future communications strategy and materials.⁷⁴
- b) An improved understanding of the relative distribution of benefits and the burden of action, both geographically and in the context of different parts of society, may help when developing the resource mobilization strategy for a post-2020 global biodiversity framework and identifying novel ways to manage the burden.
- c) It is important to consider whether sufficient attention has been paid to evidence from different knowledge systems, and in particular indigenous and local knowledge systems. The findings discussed above at the expert meeting do not necessarily exclude such knowledge, but it may be that specific issues have been insufficiently addressed.
- d) Irrespective of how well they are being addressed, the impacts of individual pressures on biodiversity and ecosystem services are relatively well known. However there is a rather poorer understanding of the effects of multiple pressures and their trade-offs, making it rather more difficult to respond appropriately.
- e) In order to inform the development of a post-2020 global biodiversity framework and the associated communications and approaches for supporting implementation of such a framework, it may be helpful to explore different approaches for changing human behaviours.
- f) In considering the different policies and interventions that might be promoted by a post-2020 global biodiversity framework, and how these might be communicated, it may help to have an improved understanding of how decisions are made at the national level in relevant sectors, and of the power relations in government.

53. In addition, three more general concerns were raised on several occasions during the meeting :

⁷² See COP [decision XIII/25](#)

⁷³ See www.intosai.org and www.environmental-auditing.org

⁷⁴ This could build on resources such as the [OECD Environmental Outlook to 2050: The consequences of Inaction](#).

- a) When compiling and synthesising evidence, and communicating it, there is a tendency to use the most readily available information, and in particular literature in English. Information resources in Spanish, Chinese, Russian and Arabic, for example, (all UN languages) were often drawn on rather less.⁷⁵
- b) When working on biodiversity there is a tendency to focus on the natural sciences, and to overlook the contributions that can be made by the social sciences, including economists and behavioural scientists. In addition certain stakeholders are often underrepresented, for example those from the private or financial sectors.
- c) There are significant data, information and knowledge available, but it is often not readily accessible to those who could use it to good effect, for a range of reasons including journal paywalls, confidentiality, or simply through not knowing it exists or not knowing how to use it. More needs to be done to facilitate 'discovery' of relevant data and information from all sources from remote sensing to indigenous and local knowledge, and to facilitate its use.

54. It is also worth noting that throughout the expert meeting there were references to the need for enhanced communication at all appropriate levels, and reference to the fact that such communication needed to be based on available evidence. This was taken up further within two associated events convened in Cambridge, an open panel discussion at which the Executive Secretary made a keynote address, and at the CBD-led communications workshop that took place on Friday 13 April.

⁷⁵ See for example Amano T, González-Varo JP, Sutherland WJ (2016) Languages Are Still a Major Barrier to Global Science. PLoS Biol 14(12): e2000933. <https://doi.org/10.1371/journal.pbio.2000933>

Annex: List of participants

Adams Toussaint	Ministry of Agriculture, Fisheries, Physical Planning, Natural Resources and Co-operatives, St Lucia
Alexander Shestakov	Secretariat of the Convention on Biological Diversity
Andreas Obrecht	UN Environment
Andrew Stott	Department for Environment, Food and Rural Affairs, United Kingdom
Anne Teller	European Union
Bernardo Strassburg	International Institute for Sustainability, Brazil
Braulio Días	University of Brasilia, Brazil
Chris Sandbrook	University of Cambridge, United Kingdom
David Ainsworth	Secretariat of the Convention on Biological Diversity
Deon Nel	WWF International
Dilys Roe	International Institute for Environment and Development
Elisa Morgera	University of Strathclyde, United Kingdom
Graeme Buchanan	Royal Society for the Protection of Birds, United Kingdom
Graham Wynne	UK Climate Change Adaptation Sub-Committee, United Kingdom
Guido Schmidt-Traub	UN Sustainable Solutions Development Network
Günter Mitlacher	WWF Germany
Helen Crowley	Kering
Hendrik Segers	Royal Belgian Institute of Natural Sciences
Hesiquio Benitez	CONABIO, Mexico
Horst Korn	Federal Agency for Nature Conservation, Germany
Ilham Atho Mohamed	Ministry of Environment and Energy, Maldives
Irene Hoffmann	FAO Commission on Genetic Resources for Food and Agriculture
Jerry Harrison	UNEP-WCMC
Joji Cariño	Forest Peoples Programme
Jon Hutton	Luc Hoffman Institute
Katia Karousakis	Organization for Economic Co-operation and Development
Li Gu	Ministry of Environmental Protection, People's Republic of China
Marcel Kok	PBL Netherlands Environmental Assessment Agency
Melanie Heath	BirdLife International
Michael Obersteiner	International Institute for Applied Systems Analysis
Mike Rands	Cambridge Conservation Initiative, United Kingdom
Moustafa Fouda	Ministry of State for Environmental Affairs, Egypt
Neil Burgess	UNEP-WCMC
Neville Ash	UNEP-WCMC
Piero Visconti	Zoological Society of London/University College London, United Kingdom
Prudence Galega	Ministry of Environment, Protection of Nature and Sustainable Development, Cameroon
Richard Gregory	Royal Society for the Protection of Birds, and Centre for Biodiversity and Environmental Research at University College London, United Kingdom
Rob Hendriks	Ministry of Economic Affairs, Netherlands
Ruth Davis	Royal Society for the Protection of Birds, United Kingdom

Senka Barudanovic	University of Sarajevo, Bosnia and Herzegovina
Sonia Peña Moreno	International Union for Conservation of Nature
Spencer Thomas	Ministry of Foreign Affairs, Grenada
Stanley Asah	University of Washington, United States of America
Stuart Butchart	BirdLife International
Vin Fleming	JNCC, United Kingdom
William Sutherland	University of Cambridge, United Kingdom
Xin Jing	Ministry of Environmental Protection, People's Republic of China
Yousef Al-Hafedh	King Abdulaziz City for Science & Technology, Saudi Arabia

Bernadette Fischler	Meeting Secretariat (WWF UK)
Francis Booker	Meeting Secretariat (RSPB)
Georgina Chandler	Meeting Secretariat (RSPB)
Natasha Ali	Meeting secretariat (IUCN)
Nina Bhola	Meeting secretariat (UNEP-WCMC)
Noelle Kümpel	Meeting Secretariat (BirdLife International)
