UNEP

CBD

Convention on Biological Diversity

Distr.
GENERAL

CBD/SBSTTA/23/2*
4 October 2019

ORIGINAL: ENGLISH

SUBSIDIARY BODY ON SCIENTIFIC,
TECHNICAL AND TECHNOLOGICAL ADVICE
Twenty-third meeting
Montreal, Canada, 25-29 November 2019
Item 3 of the provisional agenda*

INFORMING THE SCIENTIFIC AND TECHNICAL EVIDENCE BASE FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

BACKGROUND

1. In decision 14/34, the Conference of the Parties requested the Subsidiary Body on Scientific, Technical and Technological Advice at its twenty-third and twenty-fourth meetings to contribute to the development of the post-2020 global biodiversity framework and in support of the work of the open-ended intersessional working group (para. 16). Further, the preparatory process for the development of the post-2020 global biodiversity framework adopted by decision 14/34 requires that the process be knowledge-based and that it includes provision for analytical work prepared in accordance with recommendation SBSTTA-XXI/1 and decision 14/35. Among the key information sources identified in the preparatory process are national reports, assessments prepared by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and other bodies and relevant peer reviewed literature, as well as the fifth edition of the *Global Biodiversity Outlook*.

2. In decision 14/1, the Conference of the Parties requested the Executive Secretary to use and analyse the review of scientific information and the outcomes of all products of IPBES in the preparation of the post-2020 global biodiversity framework, and to provide the results 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.

3. In decision XIII/29, the Conference of the Parties 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, to be considered by the Conference of the Parties at its fifteenth meeting. Subsequently, in decision 14/35, the Conference of the Parties took note of the plan for the preparation of the fifth edition of the Outlook which foresees, inter alia, that a draft of the Outlook is available for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at its twenty-third session.

4. Further, the Open-ended Working Group on the Post-2020 Global Biodiversity Framework, at its first meeting in August 2019, invited the Subsidiary Body on Scientific, Technical and Technological Advice, with reference to the findings of the global assessment report of IPBES, to provide elements concerning guidance on specific goals, SMART targets, indicators, baselines, and monitoring frameworks, relating to the drivers of biodiversity loss, for achieving transformational change, within the scope of the three objectives of the Convention.[1]

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* Reissued for technical reasons on 20 November 2019.

* CBD/SBSTTA/23/1.

[1] CBD/WG2020/1/5. See paragraph 7 of the conclusions.

5. Pursuant to the above, the Executive Secretary has prepared the present note to provide the Subsidiary Body with relevant information on the scientific and technical evidence base for the preparatory process of the post-2020 global biodiversity framework.

6. Section I of the present note provides an overview of the findings of the global assessment report, other reports of IPBES and other relevant assessments, and implications for the work of the Convention, in particular for the post-2020 global biodiversity framework. Section II reviews other information on the evidence base for the post-2020 global biodiversity framework, including in follow-up to recommendation SBSTTA-XXI/1. Section III presents an outline of the fifth edition of the *Global Biodiversity Outlook* and an update on the progress of its preparation. Sections IV provides preliminary information with regard to observations on goals, the 2030 mission, targets, indicators, baselines, and monitoring frameworks. Suggested recommendations for the Subsidiary Body are provided in section V.

7. The present note is complemented by four addenda (CBD/SBSTTA/23/2/Add.1, Add.2, Add.3 and Add.4) providing further details for each of the sections I-IV described above. Further analysis related to issues addressed by some specific Aichi Biodiversity Targets is provided in information documents.

8. The Subsidiary Body is invited to consider these documents and prepare its conclusions and recommendations for the Open-ended Working Group on the Post-2020 Global Biodiversity Framework and the Conference of the Parties as appropriate. The Subsidiary Body on Scientific, Technical and Technological Advice is also invited to provide any further guidance to the Executive Secretary on the finalization of the fifth edition of the *Global Biodiversity Outlook*.

I. OVERVIEW OF THE FINDINGS OF THE GLOBAL AND OTHER ASSESSMENTS OF THE INTERGOVERNMENTAL SCIENCE-POLICY PLATFORM ON BIODIVERSITY AND ECOSYSTEM SERVICES AND OTHER RELEVANT ASSESSMENTS, AND IMPLICATIONS FOR THE WORK OF THE CONVENTION AND THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

9. As noted above, the Conference of the Parties requested the Executive Secretary to use and analyse the review of scientific information and the outcomes of all products of IPBES in the preparation of the post-2020 global biodiversity framework. It also identified assessments from other relevant processes, such as the Intergovernmental Panel on Climate Change (IPCC), as relevant for the post-2020 global biodiversity framework.

10. This section provides an overview of the findings of relevant assessments, highlighting some key implications for the work of the Convention and the post-2020 global biodiversity framework. It focuses in particular on the global assessment report on biodiversity and ecosystem services prepared by IPBES, integrating also findings from the IPBES assessment on land degradation and restoration, and the special reports of the IPCC on 1.5 degrees and on land, as relevant. As further specified in the text below, it also draws upon a number of specialized reports. While these reports and assessments vary in their focus, they identify several common themes and messages, with implications for the future of the Convention and the post-2020 global biodiversity framework. Further information, with references, is provided in CBD/SBSTTA/23/2/Add.1.

11. The four highest level key messages[2] of the IPBES global assessment are:

(a) Nature and its vital contributions to people, which together embody biodiversity and ecosystem functions and services, are deteriorating worldwide;

(b) Direct and indirect drivers of change have accelerated during the past 50 years;

[2] Key messages under each of these four headings, together with background information, is provided in the summary for policymakers of the assessment and in the Executive Summaries of each of the Chapters of the Assessment. These are available from https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services.

(c) Goals for conserving and sustainably using nature and achieving sustainability cannot be met by current trajectories, and goals for 2030 and beyond may only be achieved through transformative changes across economic, social, political and technological factors;

(d) Nature can be conserved, restored and used sustainably while other global societal goals are simultaneously met through urgent and concerted efforts fostering transformative change.

12. The IPBES global assessment thus reinforces the underlying rationale for urgency of action under the Convention. It demonstrates the essential role of biodiversity for the provision of ecosystem services (or nature's contributions to people) and to human well-being (or good quality of life). The corollary is that failure to address biodiversity loss will undermine this. Variations on these messages are also present in the other reports and assessments noted above.

13. The assessments show that biodiversity loss, climate change and land degradation are taking place on a massive scale, with no signs of decrease under business-as-usual scenarios. For example, about one million species already face the threat of extinction, many within decades, unless action is taken to reduce the intensity of drivers of biodiversity loss. The potential impacts on human well-being of these trends are commensurately large, threatening to undermine our ability to implement the 2030 Agenda for Sustainable Development.

14. Biodiversity loss, climate change and land degradation are interrelated challenges and need to be addressed together. For example, current levels of warming already impact biodiversity, and the impacts on biodiversity of 2 degrees of warming would be at least twice as negative as 1.5 degrees. Similarly, land degradation both contributes to and is accelerated by climate change. On the other hand, the conservation and restoration of biodiversity can make essential contributions to climate change mitigation and adaptation as well as avoiding, reducing and reversing land degradation.

15. When well implemented, conservation actions are effective. For example, it is estimated that conservation investments from 1996 to 2008 reduced the extinction risk for mammals and birds by a median value of 29 per cent per country. Without such measures the status of biodiversity would be even poorer. There is thus a strong justification to maintain and enhance investments in the conservation and sustainable use of biodiversity.

16. Biodiversity loss is occurring despite substantial ongoing efforts for biodiversity conservation and sustainable use. While current conservation and management actions are having positive impacts, their effects are overwhelmed by the growing pressures on biodiversity, in particular those related to increased levels of consumption of food, energy and materials and to the development of infrastructure, as well as increasing human populations. Accordingly, the world is not on track to achieve most of the current globally agreed targets for biodiversity, or the targets for land degradation and climate change.

17. The assessments underline the urgency of action. They identify potential feedbacks and tipping points in socioecological systems at local, regional and global scales. For example, the efficacy of nature-based solutions for climate mitigation (e.g. carbon sequestration in forests) and adaption (e.g. resilience provided by mangroves and coral reef systems) could be undermined if thresholds of climate change and/or ecosystem degradation are passed. While it is not too late to act to prevent catastrophic impacts, the assessments of both IPBES and IPCC point to the need for urgent action this decade, including both the implementation and scaling-up of existing proven measures and initiation of transformative changes to achieve the agreed 2050 objectives.

18. The IPBES global assessment provides a comprehensive list of approaches for sustainability and possible actions and pathways for achieving them which could be helpful in this respect.[3]

19. More generally, the assessments highlight the central imperative of addressing both the direct and indirect drivers of biodiversity loss, the latter being largely in common with the drivers of climate change

[3] The global assessment report on biodiversity and ecosystem services, IPBES, summary for policymakers, Table SPM 1.

and land degradation. In turn, this means addressing values and institutions, in order to ensure a paradigm shift in society's relationship with nature. In this context, the following should be taken into account in the post-2020 framework:

(a) The impacts climate change will have for the conservation and sustainable use of biodiversity must be considered in future design of protected areas, among other measures;

(b) More emphasis on pollution may be warranted than under the current Strategic Plan for Biodiversity 2011-2020, including with respect to plastic waste;

(c) Habitat change and overexploitation nonetheless continue to be the main drivers of loss (land use change being the main driver in terrestrial and freshwater ecosystems and overexploitation in marine ecosystems) and urgent scaled-up action to address them is warranted;

(d) More attention is needed to address the threats to biodiversity posed by the expansion of infrastructure, including roads, energy infrastructure and the expansion of cities. In addition, increased long distance transport may increase the risk from alien invasive species;

(e) As distant areas of the world are increasingly connected through supply chains, impacts on biodiversity can occur in areas distant from the decisions made by consumers and policymakers ("telecouplings").

20. Each of the assessments highlights the importance of governance and enabling actions including recognition of the roles and rights of indigenous peoples and local communities.

21. The scenarios and models developed and identified in the assessments noted above demonstrate several plausible futures which could ensure that objectives for biodiversity as well as for climate change and land degradation could be achieved. The implications of these scenarios should be taken into account when developing the post-2020 global biodiversity framework. In particular:

(a) How land is managed is critical to the future of biodiversity, climate change and land degradation, as well as food security. The demands on land for food production, infrastructure expansion, carbon sequestration and the provision of other ecosystem services, will necessitate effective nature conservation and restoration as well as the rehabilitation of land and enhanced land-use planning to minimize degradation and fragmentation, including from infrastructure;

(b) While a strong role for ecosystem-based approaches ("nature-based solutions") to climate change mitigation and adaptation is warranted, care will be needed to avoid negative outcomes for biodiversity, for example from the expansion of bioenergy crops or the afforestation of non-forest ecosystems (see also CBD/SBSTTA/21/3);

(c) Increases in agricultural productivity and sustainability will be needed to reduce major threats to biodiversity. Reduced food waste and limits to overconsumption, especially of animal-based products, will also be necessary. Enhanced use of biodiversity in agricultural systems can contribute to these objectives. For example, agricultural systems can be made more effective through enhanced pollination, the use of natural enemies in pest control, improved soil fertility and health through the use of cover crops and other means, and the better use of genetic resources in crop, livestock and aquaculture systems. These opportunities are highlighted in more specialized assessments such as the report on the State of the World's Biodiversity for Food and Agriculture of the Food and Agriculture Organization of the United Nations (FAO), and the Agri-Food report of The Economics of Ecosystems and Biodiversity (TEEB);

(d) There is a need for mainstreaming biodiversity in infrastructure development, and in the design of cities, both to reduce the loss of biodiversity and to enhance the benefits of biodiversity for health and well-being;

(e) A key element in the development of pathways for living in harmony with nature will be the evolution of global financial and economic systems towards a globally sustainable economy, steering away from the current limited paradigm of economic growth.

22. To help operationalize these scenarios, the IPBES global assessment identifies five main "levers" to generate transformative change by tackling the underlying indirect drivers of nature deterioration and which could help to inform the development of the post-2020 global biodiversity framework. These levers are:

(a) Developing incentives and widespread capacity for environmental responsibility and eliminating perverse incentives;

(b) Reforming sectoral and segmented decision-making to promote integration across sectors and jurisdictions;

(c) Taking pre-emptive and precautionary actions in regulatory and management institutions and businesses to avoid, mitigate and remedy the deterioration of nature, and monitoring their outcomes;

(d) Managing for resilient social and ecological systems in the face of uncertainty and complexity to deliver decisions that are robust in a wide range of scenarios;

(e) Strengthening environmental laws and policies and their implementation, and the rule of law more generally.

23. The IPBES global assessment further concludes that the levers for transformations noted above could be further supported by:

(a) Enabling visions of a good quality of life that do not entail ever-increasing material consumption;

(b) Lowering total consumption and waste, including by addressing both population growth and per capita consumption differently in different contexts;

(c) Unleashing existing widely held values of responsibility to effect new social norms for sustainability, especially by extending notions of responsibility to include impacts associated with consumption;

(d) Addressing inequalities, especially regarding income and gender, which undermine capacity for sustainability;

(e) Ensuring inclusive decision-making, fair and equitable sharing of benefits arising from the use of and adherence to human rights in conservation decisions;

(f) Accounting for nature deterioration from local economic activities and socioeconomic-environmental interactions over distances (telecouplings), including, for example, international trade;

(g) Ensuring environmentally friendly technological and social innovation, taking into account potential rebound effects and investment regimes;

(h) Promoting education, knowledge generation and maintenance of different knowledge systems, including the sciences and indigenous and local knowledge regarding nature, conservation and its sustainable use.

24. The implications from the assessments above are generally consistent. Each indicates the need for transformative change. As noted in the IPBES global assessment, such change can expect opposition from those with interests vested in the status quo, but such opposition can be overcome for the broader public good. Commitment to mutually supportive international goals and targets, supporting actions by indigenous peoples and local communities at the local level, new frameworks for private sector investment and innovation, inclusive and adaptive governance approaches and arrangements, multisectoral planning and strategic policy mixes can help to transform the public and private sectors to achieve sustainability at

the local, national and global levels. As the post-2020 global biodiversity framework is developed, it will be necessary to explore how the Convention can contribute in this regard, taking into account the levers and leverage points identified above.

II. OTHER INFORMATION ON THE EVIDENCE BASE FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

25. In recommendation XXI/1, the Subsidiary Body 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 the framework is based on the best available evidence. This evidence includes information on the links between biodiversity and the 2030 Agenda for Sustainable Development, lessons learned from the implementation of the Convention, its Protocols and the Strategic Plan for Biodiversity 2011-2020 and possible reasons for the varying levels of progress towards the achievement of the Aichi Biodiversity Targets. It also includes policy options and recommendations under the Convention that could leverage the transformational change required to achieve the 2050 Vision for Biodiversity and contribute to the implementation of the 2030 Agenda for Sustainable Development and ways in which other biodiversity-related conventions and other relevant international conventions and agreements could contribute to the post-2020 global biodiversity framework and the 2050 Vision for Biodiversity.

26. This section provides an overview of these issues based on evidence from the key information sources referred to in decision 14/34. Further information is provided in the addendum to the present note (CBD/SBSTTA/23/2/Add.2).

A. Links between biodiversity and the 2030 Agenda for Sustainable Development[4]

27. Linkages between the 2030 Agenda for Sustainable Development and the Strategic Plan for Biodiversity 2011-2020 have been examined in previous documents.[5] The links between biodiversity and selected Sustainable Development Goals is also explored in chapter 3 of the IPBES global assessment.

28. Most of the Aichi Biodiversity Targets are well reflected in the Sustainable Development Goals and related targets.[6] In many cases, the Aichi Biodiversity Targets provided the inspiration for the corresponding targets under the Sustainable Development Goals, reflecting the role of the Convention in setting the global biodiversity agenda and the comprehensive nature of the Strategic Plan for Biodiversity 2011-2020. This is the case for most of the targets under SDGs 14 (life below water) and 15 (life on land) that deal directly with biodiversity, as well as some targets under Goal 2 on food security. As is the case for the Aichi Biodiversity Targets, some of the SDG targets derived from them have a target date of 2020. These may need to be updated, post-2020, in light of the global biodiversity framework.[7]

29. Biodiversity is also relevant to the Sustainable Development Goals beyond those specific targets that reflect the Aichi Biodiversity Targets.[8] A number of Sustainable Development Goals (such as Goal 2 on food security and Goal 6 on water security) and their respective targets recognize the role of biodiversity and ecosystem services in their attainment. This recognition aids the mainstreaming of biodiversity into the relevant sectors and provides incentives for its conservation and sustainable use. It is a

[4] These linkages are further explored in CBD/SBSTTA/23/2/Add.2

[5] CBD/SBSTTA/19/INF/9, CBD/SBSTTA/21/2/Add.1, and CBD/COP/13/10/Add.1

[6] Document CBD/SBSTTA/19/INF/9 provides an analysis of the links between the Aichi Biodiversity Targets to the relevant targets from the 2030 Agenda for Sustainable Development. Comments are provided describing the relation and noting overlaps, gaps and differences in scope where relevant. Document CBD/SBSTTA/21/2/Add.1, Table 1 lists some gaps and inconsistencies between some elements of the targets under the SDGs and the corresponding Aichi Biodiversity Targets. For example, there is no specific reference to the role of traditional knowledge in the 2030 Agenda.

[7] See decision 14/34 (para. 15)

[8] Document CBD/COP/13/10/Add.1 lists the *contributions of biodiversity to the achievement of each of the SDGs*

valuable basis for further building recognition of the role of biodiversity and ecosystem services in addressing the Sustainable Development Goals.

30. More generally, the IPBES global assessment shows that ongoing biodiversity loss threatens to undermine progress towards many SDGs. However, on the other hand, biodiversity is likely to benefit from actions to reach the Sustainable Development Goals, both by directly addressing pressures on biodiversity, and by enhancing the enabling environment for reaching the 2050 Vision for Biodiversity. For example:

(a) Some SDGs address the drivers of biodiversity loss, including climate change (SDG 13), pollution (SDGs 6, 12 and 14) and overexploitation (SDG 6, 12, 14 and 15) as well as unsustainable production and consumption (SDG 12). Addressing these will help to reduce pressures on biodiversity. Similarly, many Sustainable Development Goals relate to the building of institutions, human capital and the strengthening of equality and rights (SDGs 3, 4, 5, 10 and 16). These provide an enabling environment conducive to improved governance of factors affecting biodiversity;

(b) While potential trade-offs may exist between reaching the objectives of the Convention and attaining some of the Sustainable Development Goals (such as Goals 2 (food security), 7 (energy), 8 (economic growth) and 9 (infrastructure)), these can be avoided or minimized through coherent and integrated decision-making to position biodiversity and sustainable development as mutually supportive objectives.[9]

B. Reasons for the varying levels of progress towards the achievement of the Aichi Biodiversity Targets

31. There has been significant progress towards meeting some components of the majority of the Aichi Biodiversity Targets. However, in most cases this progress is not sufficient to achieve the targets by the 2020 deadline. According to the IPBES global assessment, the target components on track to be met are conserving at least 17 per cent of terrestrial and inland water areas (Target 11) and eradicating invasive alien species on islands (Target 9), as well as the targets on the Nagoya Protocol (Target 16) and the national biodiversity strategies and action plans (Target 17). Targets with least progress are Targets 10 (ecosystems vulnerable to climate change), 12 (threatened species), 14 (ecosystem services), 8 (pollution), 4 (sustainable consumption and production) and 3 (incentives). Possible reasons for the varying levels of progress among the Aichi Targets are:

(a) *Process versus outcome targets* - More progress appears to have been made for targets which are process rather than biodiversity outcome oriented. For example, Targets 16 and 17, and elements of Targets 9 and 11, refer to measures to be taken by Parties which can be directly implemented, rather than to biodiversity outcomes. By comparison, reducing the threat of human-induced extinction (Target 12) is a biodiversity "outcome" target and while Parties can take actions to reach it, their ability to directly impact the outcome is subject to a range of drivers and factors, including those related to other targets. In addition, there are inevitable lags between formulating policies and implementing them, and seeing results on the ground, due to the time needed for implementation as well as the dynamics of social-ecological systems. As such, reaching outcome targets is significantly more challenging than reaching process targets;

(b) *Scope of action needed to achieve the Target.* – Targets related to the direct mandate of the Convention on Biological Diversity focal ministries and partners, such as protected areas (Target 11) and addressing invasive alien species (target 9), have achieved seemingly greater progress than those addressing issues related to other sectors, such as Targets 6 (fisheries) and 7 (agriculture), and those requiring a whole-of-government response, such as Targets 2 (integrating the values of biodiversity), 3 (incentives) and 4 (sustainable consumption and production);

[9] Document CBD/SBSTTA/21/2/Add.1 considers the enabling role of the SDGs for biodiversity and also examines the enabling, contributing and potential constraining relationships between biodiversity and the sustainable development goals.

(c) *Interconnections among targets* – As noted above, many of the Aichi Biodiversity Targets are interconnected.[10] Such interactions need to be taken into account. For example, achievement of Target 5 (reduce habitat loss), may depend upon public awareness (Target 1), integrating biodiversity values in policy frameworks (Target 2), aligning incentives (Target 3), sustainable consumption and supply chains (Target 4), sustainable increases in agricultural productivity (Target 7), expanding protected areas (Target 11), engaging with indigenous and local communities (Target 18), and monitoring of land use change (Target 19). By comparison, targets on protected areas (Target 11), national biodiversity strategies and action plans (Target 17) and the Nagoya Protocol (Target 16), do not have the same level of interconnections and can largely be achieved in isolation of the other targets;

(d) *Target design* - Not all Aichi Targets are formulated with clear, unambiguous, simple language, with quantitative elements, i.e. according to "SMART" criteria.[11] It has been observed that targets which are more "SMART" have seen greater levels of progress.[12] This suggests that in the post-2020 global biodiversity framework, greater efforts should be made to ensure that future biodiversity targets are "SMART" to the extent possible;[13]

(e) *Reporting, review and guidance from the Convention bodies* – There has, in general, been greater progress for those targets that have been supported by active programme of work and subject to review by the bodies of the Convention. For example, Target 11 is supported by the detailed and comprehensive programme of work on protected areas. Further, the Conference of the Parties has regularly considered reports on progress and has provided tailored guidance in response to these reports, with specific guidance to Parties, the Secretariat and supporting partners. Similarly, the Conference of the Parties has regularly reviewed progress relating to Targets 1, 3, 9, 16[14] and 17. In contrast, some targets, such as Target 8 (pollution) have received almost no attention under the Convention, and perhaps as a consequence, progress towards these targets has been limited;

(f) *Availability of financial resources and technical support* - Capacity-building workshops have been held in support of a number of Aichi Targets, in particular, Targets 9, 11, 16 and 17, where substantial progress has been made. Moreover, Target 11 benefits from well-established networks of supporting organizations at global and regional levels. In addition, the availability of dedicated resources, inter alia through the Global Environment Facility (GEF), has contributed to the achievement of some components of the Aichi Targets. The lack of integration of biosafety in national biodiversity strategies and action plans (NBSAPs) and of funds set-aside for biosafety in countries' GEF allocations has negatively impacted support to Parties of the Cartagena Protocol for its implementation.

C. Lessons learned from the implementation of the Convention, its Protocols and the Strategic Plan for Biodiversity 2011-2020

32. Several overarching lessons from the experiences in implementing the Convention, its Protocols and the Strategic Plan for Biodiversity could help to inform the development of the post-2020 global

[10] An analysis of interactions among targets is provided in the fourth edition of the *Global Biodiversity Outlook*.

[11] One list of SMART criteria is **s**pecific, **m**easurable, **a**chievable, **r**esults-based and **t**ime-bound (for example, in the conclusion of the first meeting of Working Group on the Post-2020 Global Biodiversity Framework (see CBD/WG2020/01/05)). The list of SMART criteria used in the study referenced here (CBD/SBSTTA/22/INF/35, Green et al, 2019), is "**s**pecific, **m**easurable, **a**mbitious, **r**ealistic and **t**ime-bound". In yet other contexts, the criteria "**s**trategic, **a**ssignable, **a**ction-oriented and **r**elevant", among others, have also been used.

[12] CBD/SBSTTA/22/INF/35 and Green et al (2019). Please refer to CBD/SBSTTA/23/2/Add.2 for full references.

[13] See also the IPBES global assessment, Chapter 3, Executive Summary, paragraph 14.

[14] An in-depth analysis of progress made in Target 16 and implementation of the Nagoya Protocol was carried out at the last meeting of the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol (MOP-3) in the context of the first assessment and review of the effectiveness of the Protocol. The outcomes and findings of this analysis can be found in decision NP-3/1.

biodiversity framework.[15] Building on the previous sections, these lessons suggest that there is no single solution to improving the design and implementation of the post-2020 global biodiversity framework but that a range of changes could help:

(a) *Greater efforts to address the direct and indirect drivers of biodiversity loss* – Reducing the rate of biodiversity loss and ultimately halting it will require that the drivers of biodiversity loss are addressed. This need is reflected in much of the Convention's current work including the Strategic Plan for Biodiversity 2011-2020. National biodiversity strategies and action plans have evolved to include issues beyond the direct drivers of biodiversity loss and towards holistic approaches to biodiversity governance. However, the direct and indirect drivers of biodiversity loss are still increasing, and thus effectively addressing the underlying drivers remains a challenge and will need to be addressed in a coherent manner in the post-2020 global biodiversity framework. This will necessitate greater interaction between ministries responsible for the Convention and those ministries addressing issues related to other sectors, and engaging effectively with these sectors more generally. Also, since some drivers of biodiversity loss are entrenched in individuals' and societies' values, it will also require that existing attitudes and behaviours are addressed;

(b) *The need to strengthen national biodiversity strategies and action plans and associated planning processes* – The Strategic Plan for Biodiversity 2011-2020 reinforced the importance of NBSAPs for national biodiversity planning, building on guidance adopted earlier, and emphasizing that NBSAPs should be adopted as whole-of-government policy instruments. However, few countries have done so, undermining their effectiveness in addressing other sectors (see (a), above) and weakening the level of implementation of NBSAPs. The same applies to the Protocols. For instance, few Parties to the Cartagena Protocol have integrated biosafety in their NBSAPs. Recent work on mainstreaming biosafety has highlighted this fact and assisted a number of Parties in identifying ways to include biosafety in different policies and programmes;

(c) *The need to ensure that targets or commitments established by Parties are commensurate with the global framework* – The Strategic Plan for Biodiversity 2011-2020 provided a flexible framework for action by Parties in accordance with national priorities and capacities and for the establishment of national biodiversity targets in support of the global Aichi Biodiversity Targets, with a view to contributing to collective global efforts to reach the Aichi Targets.[16] However, the majority of national targets and/or commitments contained in NBSAPs were lower than the Aichi Targets, did not address all of the elements of the Aichi Targets and/or were less specific than the Aichi Targets. Thus, the national targets that have been established tend to be less ambitious, on average, than the global Aichi Targets;[17]

(d) *The need to reduce time lags in planning and account for time lags in implementation* – The implementation of the Strategic Plan for Biodiversity 2011-2020 was hindered by various time lags. In most cases the national biodiversity strategies and action plans were not developed until well after the Strategic Plan was adopted, delaying action to implement the Plan. At the global level, many years elapsed before indicators were identified. In addition, given the dynamics of natural systems, when positive actions are taken, the impacts on biodiversity may not be visible for several years or decades. These types of time lags need to be accounted for in the implementation of the post-2020 global biodiversity framework;

(e) *The need for more effective review of implementation* – One of the main responsibilities of the Conference of the Parties is to keep the implementation of the Convention under review.[18] However, while there have been effective reviews for some specific targets or issues (for example, para 31(e) above), most reviews have been undertaken to assess progress generally. These reviews have been based on

[15] The present analysis complements the information presented in the annex of recommendation XVII/1 of the Subsidiary Body on the policy support tools and methodologies available to Parties to enable action to implement the Strategic Plan for Biodiversity 2011-2020 and achieve the Aichi Biodiversity Targets.

[16] UNEP/CBD/COP/DEC/X/2.

[17] UNEP/CBD/SBI/1/2/Add.2; UNEP/CBD/COP/13/8/Add.2/Rev.1; CBD/COP/14/5/Add.2.

[18] Article 23.

aggregated global level data and therefore have not been able to address specific national level constraints. Further, national experts have not been closely involved in the reviews, limiting the opportunities for learning.[19] In addition, reviews have been limited by the availability of timely and reliable global data which can be disaggregated to the regional and national levels;

(f) *The need for sustained and targeted support to Parties* – More progress has been made towards the achievement of targets for which sustained and ongoing support has been provided by the Secretariat and its partner organizations (see para. 31(e) and (f) above). The post-2020 global biodiversity framework should therefore ensure sufficient attention to capacity-building activities. There is also a need to strengthen technical and scientific cooperation among countries consistent with Article 18 of the Convention;

(g) *The opportunity to make greater use of available guidance materials and resources* – As identified by the Subsidiary Body on Scientific, Technical and Technological Advice in its recommendation XVII/1, there is an abundance of policy support tools and methodologies available to Parties that enable action to implement the Strategic Plan for Biodiversity 2011-2020 and achieve the Aichi Biodiversity Targets. Some of these are formal, such as the Convention's programmes of work, while others take the form of technical series, guidelines, and other guidance materials, including those prepared by partner organizations. Greater efforts are needed to make use of existing guidance and adapt them to specific national circumstances;

(h) *The need for integrated approaches*– Many of the issues addressed under the Convention are interrelated. For example, in order to reach Aichi Biodiversity Target 12 (Extinctions prevented), actions may be needed to address sustainable consumption and production (Target 4), habitat loss (Target 5), pollution (Target 8), invasive alien species (Target 9), and protected areas (Target 11), among others. These interconnections between targets are both strengths, in that positive actions for one target have the potential to have positive knock on effects on other targets, but also create challenges as they require integrated and holistic approaches to planning and implementation. In the design and implementation of the post-2020 global biodiversity framework, attention should be given to avoid treating targets in isolation of one another and to operationalize the framework in a holistic manner;

(i) *The need for attention to implementation* – The Strategic Plan for Biodiversity 2011-2020 includes a rationale, vision, mission, goals and targets (the Aichi Biodiversity Targets) as well as provisions for implementation, monitoring, review and evaluation, and support mechanisms. In practice, while the Aichi Biodiversity Targets have received the most visibility; the other elements, though equally important, have received less attention. This has arguably contributed to the poor levels of achievement of the targets.

D. Policy options and recommendations under the Convention leveraging the transformational change required to achieve the 2050 Vision for Biodiversity and contribute to the implementation of the 2030 Agenda for Sustainable Development

33. The fourth edition of the *Global Biodiversity Outlook* listed, for each of the Aichi Biodiversity Targets, actions that could enhance progress, and the Conference of the parties encouraged Parties to make use of these.[20]

34. These conclusions are supported and reinforced by the lessons summarized in previous subsections and by the findings of recent assessments. There are a number of additional policy recommendations that emerge from IPBES and other assessments summarized in section I. Among these is recognition of the urgency to take action this decade to address biodiversity loss (as well as climate change and land degradation), through both the scaling up of proven measures and by initiating measures to achieve transformative change.

[19] Exceptions are the voluntary peer reviews undertaken at country level. See CBD/SBI/2/INF/27.

[20] Decision XII/1.

35. As noted in section I, the IPBES global assessment presents various elements of pathways towards sustainability, identifies key levers and leverage points to facilitate transformative change, and lists possible approaches and actions.[21]

E. Ways in which biodiversity-related and other relevant international agreements could contribute to the post-2020 global biodiversity framework and the 2050 Vision for Biodiversity

36. The Strategic Plan for Biodiversity 2011-2020 was adopted as a global framework for action by all stakeholders rather than as a strategy for the Convention alone, and it is envisaged that the post-2020 global biodiversity framework should be a similarly broad instrument. There are multiple ways in which biodiversity-related conventions and other relevant international agreements and processes could contribute to the development and implementation of the post-2020 global biodiversity framework and the 2050 Vision for Biodiversity. The specific details will need to vary with the particularities of each agreement but in general they could:

(a) *Leverage national biodiversity strategies and action plans* – many other agreements and processes have goals and objectives that align with the current Strategic Plan and will likely align with the post-2020 global biodiversity framework. This provides an opportunity to establish national biodiversity strategies and action plans that serve both the objectives of the Convention and the post-2020 global biodiversity framework and those of other agreements and processes;

(b) *Specific actions for biodiversity-related conventions* – The other biodiversity-related conventions are relatively more targeted or specific in their scope and focus in comparison to the Convention. Further many of them have specific mechanisms or instruments to support their objectives. The Convention on Biological Diversity could therefore engage with the other conventions and leverage their specificity and scope, as well as the tools at their disposal to support the transformational changes required to reach the 2050 Vision;

(c) *Promoting synergies* – Many agreements, including the Rio conventions, work to address issues which are supportive of the objectives of the Convention. Similarly, many agreements have similar membership to the Convention on Biological Diversity. Given this, these agreements could support synergies in national and international implementation;

(d) *Recognizing the framework in their processes* – Other agreements could recognize the relevance of the post-2020 global biodiversity framework in their decisions and/or outcomes. This would help to build recognition of the post-2020 global biodiversity framework and build the political momentum for its implementation;

(e) *Leveraging the 2030 Agenda for Sustainable Development* – Linkages between the 2030 Agenda for Sustainable Development and the Strategic Plan for Biodiversity 2011-2020 are abundant and have been examined in this document. The same linkages will likely apply to the post-2020 framework. There exist opportunities therefore to leverage the 2030 Agenda and the Sustainable Development Goals for furthering the biodiversity agenda. Similarly, actions to implement the post-2020 global biodiversity framework can be positioned as a means of fulfilling the 2030 Agenda;

(f) *Sharing information and lessons learned* – Other agreements have already been encouraged to participate in the consultations related to the development of the post-2020 global biodiversity framework, and the meetings of the open-ended working group on the post-2020 global biodiversity framework. Through this participation they could share their perspectives on the framework and identify opportunities for engagement. Once the post-2020 global biodiversity framework has been adopted other agreements could be encourages to participate in relevant meetings of the Convention and its subsidiary bodies and to provide reports on the actions that they have taken related to the post-2020 global biodiversity framework as a means of identifying further opportunities for collaboration and partnership.

[21] Refer to section above and CBD/SBSTTA/23/Add.1.

III. FIFTH EDITION OF THE GLOBAL BIODIVERSITY OUTLOOK

37. In decision XII/29, the Conference of the Parties initiated the preparation of the fifth edition of the *Global Biodiversity Outlook* (GBO-5) and decided that it should provide a concise final report on the implementation of the Strategic Plan for Biodiversity 2011-2020 and serve as a basis for the follow-up to the Strategic Plan for Biodiversity 2011-2020. In the same decision the Conference of the Parties decided that GBO-5 should provide a target-by-target analysis of progress towards the achievement of the Aichi Biodiversity Targets, based on a transparent and replicable methodology and an analysis of the contribution of progress towards the Aichi Biodiversity Targets to the Sustainable Development Goals. Subsequently, in decision 14/34, the Conference of the Parties also decided that GBO-5 should be one of the key sources of information to be used in developing the post-2020 global biodiversity framework. In decision 14/35 the conference of the Parties took note of the plan and cost estimates for the preparation of the fifth edition of the *Global Biodiversity Outlook* and requested the Executive Secretary to prepare the fifth editing of the Outlook, including a summary for policymakers, on the basis of this plan.

A. Progress to date

38. Preparations for GBO-5 are under way, and the report is being prepared according to the timeline noted by the Conference of the Parties.[22] This timeline foresees that a draft of the report will be made available for review by Parties and the public between October-December 2019. Following this peer review, including review by the twenty-third meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, the draft will be revised, and the final report will be made available during the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice so that the Subsidiary Body can consider its implications for the work of the Convention.

39. The Secretariat has entered into contractual arrangements to retain the services of a science writer and a graphic designer to assist with the preparation of GBO-5 to ensure that it is presented an accessible and engaging format. In addition, the Secretariat is actively reviewing information from the sources of information identified in decision XIII/29, including information from the sixth national reports. As of 4 October 2019, 109 sixth national reports had been received. The Secretariat is also working with various partners, such as the Biodiversity Indicators Partnership and its members, to collect information relevant to the preparation of GBO-5. The Secretariat is also working with the Forest Peoples Programme on the preparation of the second edition of the *Local Biodiversity Outlooks* which will be a complimentary report to GBO-5. In addition, the Global Partnership for Plant Conservation is in the process of preparing the second Global Plant Conservation Report which will also complement GBO-5.

40. The Secretariat is also making arrangements with partner organizations for supporting joint activities, such as joint communication products and strategies. In particular, in line with decision XIII/29, the secretariats of the Convention and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services are developing a joint communication strategy, informed by the success in launching the IPBES global assessment in May 2019. A primer on GBO-5 will be launched on the occasion of the second meeting of the Working Group on the Post-2020 Global Biodiversity Framework to promote media interest in the forthcoming publication of GBO-5 in May 2020.

41. To date financial support for the preparation of GBO-5 has been received from Japan, the European Union, the United Kingdom of Great Britain and Northern Ireland. However additional resources are still required, in particular for the development and implementation of a communication strategy for the report.

B. Working outline and draft narrative of the fifth edition of the *Global Biodiversity Framework*

42. GBO-5 will have three major sections, as follows:

[22] https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-35-en.pdf

(a) *Introduction* – This section will provide relevant background information on the Convention on Biological Diversity and its Protocols, the Strategic Plan for Biodiversity 2011-2020, the United Nations Decade on Biodiversity and other contextual information. It will also provide background information on the relationship between biodiversity and the Sustainable Development Goals and on the relationship between the objectives of the Paris Climate Change Agreement, including information on the role of biodiversity in climate mitigation and adaptation, and other relevant agreements. Information on potential synergies and trade-offs between these processes and biodiversity objectives will also be presented along with information exploring the relevance and role of the 2050 Vision for Biodiversity in helping to reach other societal objectives;

(b) *Progress made in implementing the Strategic Plan for Biodiversity 2011-2020* – This section will provide an assessment of the progress made towards the implementation of the Strategic Plan for Biodiversity 2011-2020 as a whole. This will include information related to the strategic goals of the plan as well as information on cross-cutting issues, such as traditional knowledge[23] and gender. Further as part of this comprehensive assessment, a target by target assessment of the progress made in reaching each Aichi Biodiversity Target will also be provided, as per decision XIII/29. In this section information will also be provided on the successes and barriers in reaching each target and the strategic plan generally, including by making use of illustrative case studies where available. This section will also provide information reconciling the fact that most of the Aichi Biodiversity Targets have not been met but that nevertheless, actions around the world in support of the Targets have had very significant results. The analysis contained in this section will be prepared based on the best available evidence and drawing on the information sources specified in decision 14/35. In particular the information from the IPBES assessments, indicator information provided through the Biodiversity Indicators Partnership and the information contained in the sixth national reports and updated national biodiversity strategies and action plans are expected to feature prominently in this section;

(c) *Possible pathways to reaching the 2050 Vision* – This section, building on the IPBES assessments and other relevant assessments as well as the conclusions of the Subsidiary Body on Scientific, Technical and Technological Advice regarding scenarios for the 2050 Vision for biodiversity welcomed by the Conference of the Parties in decision 14/2, will provide information on potential pathways for reaching the 2050 Vision for Biodiversity and implications of these in terms of the actions needed. It will examine changes already underway, which if scaled up, and complemented by transformational changes in the enabling environment, could contribute to slowing and reversing the declines in biodiversity consistent with achieving the 2050 Vision. Information on possible transitions related to land use, forestry, agriculture, food systems, fisheries, cities, freshwater and climate change will be provided. This will include an examination of examples of where some of these transitions from "business as usual" can already be observed at significant scale. This section will include a strong focus on 'nature-based solutions', restoration and placing nature at the heart of broader goals for meeting humanity's needs and wishes for the coming decades. Information on what a society living in harmony with nature could look like will also be presented in order to help frame discussions on the actions needed for biodiversity beyond 2020 and to help inform the consideration of possible actionable and long-term goals implied by the 2050 Vision. Similarly, this section will explore the need for urgent and rapid action to set us on a path to transform society's relationship with biodiversity and to put us on track to reach the 2050 Vision and the potential impacts of long-term goals, and commitments supported by decision makers at all scales.

43. In addition to the sections above, GBO-5 will also have a concluding section which draws out high level messages from the entire report relevant to the discussions on the development of the post-2020 global biodiversity framework. There will also be forewords and references.

[23] Information on the progress made towards the Aichi Biodiversity Targets from the perspective of indigenous peoples and local communities will be presented in the second edition of the *Local Biodiversity Outlooks*.

44. GBO-5 will include a summary for policymakers, a draft of which is contained in addendum 3 to the present document.

IV. GUIDANCE ON MISSION, GOALS, TARGETS, INDICATORS, BASELINES, AND MONITORING FRAMEWORKS FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

45. As already established by the Conference of the Parties in decision 14/34, the post-2020 global biodiversity framework will include the existing 2050 Vision, as well as an inspirational and motivating 2030 mission, among other elements. Based on the preparatory process to date, it is expected that it will also include specific goals, "SMART" targets, indicators, baselines, and monitoring frameworks,[24] among other things. In paragraphs 51 to 54 below, some observations on these elements of the framework are provided, in the light of the evidence summarized in earlier sections of this note, taking into account also the various consultations, submissions and contributions to the preparatory process.[25] These are further elaborated in CBD/SBSTTA/23/2/Add.4.

46. In developing the post-2020 framework, the following questions may be addressed:

(a) Where do we want to be in 2050?

(b) Where are we now, and what are current trends?

(c) What are the plausible pathways to achieve the 2050 Vision and Goals?

(d) In the light of this, what should be the mission for the decade, and what should be targets (milestones) for 2030 and 2040?

(e) What actions are needed to achieve the 2030 targets?

(f) What supporting and enabling measures are needed?

(g) How do we ensure monitoring and review?

The first question is already addressed in the 2050 Vision but may be further elaborated through long-term goals. Questions (b)-(e) may be informed by the IPBES global assessment and the *Global Biodiversity Outlook*, among other reports. The formulation of targets may also be informed by the experience to date under the Convention. Questions (f) and (g) are largely beyond the scope of this meeting of the Subsidiary Body on Scientific, Technical and Technological Advice and will be addressed by the Working Group on the Post-2020 Global Biodiversity Framework as well as the Subsidiary Body on Implementation.

47. As outlined in section I of this note, the IPBES global assessment and other relevant assessments document the current status of biodiversity, identify the drivers of change, and explore scenarios to identify pathways for achieving the 2050 Vision, including through "back-casting", and also identify possible approaches and actions to bring about the transformational changes required to be living in harmony with nature by 2050. As noted above, the assessments recognize the urgency to take action this decade to address biodiversity loss (as well as climate change and land degradation), through both the scaling up of proven measures and by initiating new measures to achieve transformative change. However, given that current trends for biodiversity are generally highly negative, with some drivers currently increasing in intensity, and taking into account the lag times inherent in socioecological systems, it will take some time to achieve the fundamental changes needed to reduce many drivers of these trends. Moreover, many ecosystems and species require time for recovery once threats are reduced. Thus, while a 2030 timescale is

[24] For example, as identified in conclusions of the first meeting of the Working Group on the Post-2020 Global Biodiversity Framework (see CBD/WG2020/1/5, para. 7).

[25] All of the submissions related to scope and content of the post-2020 global biodiversity framework are accessible from https://www.cbd.int/conferences/post2020/submissions. Also see documents CBD/POST2020/PREP/1/INF/1, CBD/POST2020/PREP/1/INF/2, CBD/POST2020/WS/2019/1/2, CBD/POST2020/WS/2019/2/2, CBD/POST2020/WS/2019/3/2, CBD/POST2020/WS/2019/4/2, CBD/POST2020/WS/2019/5/2, CBD/POST2020/WS/2019/6/2, and CBD/GB/OM/2019/1/2.

appropriate for the implementation of urgent actions, a longer timescale – to 2050 – is also important to allow for a positive vision.

48. As outlined in section II of the present document, while there is no single factor that explains the varying level of progress among the different Aichi Biodiversity Targets, the following likely had some influence: whether they address processes or outcomes; the scope of action required including with respect to lead agencies; the interconnections among all elements of the Strategic Plan – vision, mission, goals, targets; mission, goal and target design; the level of reporting provided by Parties and review and guidance provided by Convention bodies and the availability of financial resources and technical support.

49. More broadly, lessons learned from the implementation of the Convention, its Protocols and the Strategic Plan for Biodiversity 2011-2020 suggest that progress in the implementation of a post-2020 global biodiversity framework could be supported by, among other things: greater efforts to address the drivers of biodiversity loss and greater engagement with the productive sectors; strengthening national biodiversity strategies and action plans and associated planning processes; ensuring that national targets are commensurate with global aspirations; accounting for time lags in implementation; the need for effective and transparent assessment, reporting, and review, and for more sustained and targeted support to Parties; making greater use of available tools and guidance; the need for integrated approaches and for balanced attention to all dimensions of the framework.

50. In recommendation XXI/1, the Subsidiary Body on Scientific, Technical and Technological Advice noted that the 2050 Vision contains elements that could be translated into a long-term goal for biodiversity. Further, throughout the consultation process for the post-2020 global biodiversity framework there has been a call to more clearly articulate what the 2050 Vision means in measurable terms. This could be done through a long-term outcome-oriented goals for 2050 which should be high level, measurable, limited in number, and linked logically to all other elements of the framework. Such a long-term goals could relate to the status of biodiversity (for example, in terms of extent of natural habitats, level of extinction, abundance and distribution of species; maintaining genetic diversity) and also to the use of biodiversity, the benefits derived, and how they are shared (for example, by supporting health and well-being, inter alia through food and agriculture, mitigation of and adaptation to climate change, and other ecosystem services (Nature's contributions to people), among other things).

51. Decision 14/34 specifies 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 "Living in harmony with nature". During the preparatory process to date, a number of attributes have been suggested for the mission, including that it should be succinct, easy to communicate and relevant to different audiences among other things. A possible way forward would be for a short statement that addresses the various requirements implicitly, rather than explicitly, complemented by explanatory text as needed. In any case, as suggested above, the mission should summarize the action needed in the 2020-2030 decade on the way to achieve the 2050 Vision, and also be complemented by, the overall goals and targets for 2030.

52. The Aichi Biodiversity Targets address a range of issues related to the indirect and direct drivers of biodiversity loss, the status of biodiversity, the benefits derived, and enabling and implementation actions. In the light of the assessments summarized in section I of the present document and taking into account the experience of implementing the present Strategic Plan, as well as consultations and submissions made in the preparatory process, a number of gaps and limitations can be identified, which Parties may wish to take into consideration when developing future biodiversity targets. These include the following:

(a) A limited focus on the benefits provided by biodiversity;

(b) A limited focus on few sectors (agriculture, aquaculture, forestry and fisheries);

(c) No reference to behaviour change;

(d) No target on overexploitation of terrestrial wildlife and on trade in wildlife;

(e) Pollution target focuses on excess nutrients, not plastic, other chemicals, or noise;

(f) No target on climate change as a driver of biodiversity loss, and impacts of climate change not adequately addressed;

(g) No specific target on the status of natural habitats and on connectivity, beyond protected areas and other effective area-based conservation measures;

(h) No target on species beyond threatened species, and no reference to species abundance;

(i) Biosafety was not reflected in any target;

(j) Gender issues were limited to a reference to women as a vulnerable group.

53. The forgoing analyses also suggest some general issues that should be taken into account in developing targets of the post-2020 global biodiversity framework:

(a) Targets should be realistic to achieve in the time frame indicated;

(b) Targets should be commensurate with the transformations required to achieve the 2050 Vision, according to the best available evidence;

(c) Targets may be positioned as milestones rather than end points in and of themselves.

(d) Targets should be "SMART", to the extent possible;

(e) Global targets should be able to be disaggregated or otherwise adapted to the regional, national or subnational scales, and be actionable at those scales;

(f) Targets may reflect both desired outcomes and actions to be taken, to allow for monitoring. In setting targets, caution should be exercised to avoid perverse outcomes for biodiversity;

(g) Targets should be articulated in simple and clear language.

54. With regard to indicators, these should be aligned with, and explicitly linked to, the long-term goals and the 2030 targets of the framework to allow for ongoing monitoring. In decision XIII/28 the Conference of the Parties welcomed a list of indicators for the Strategic Plan for Biodiversity 2011-2020. This list of indicators included relevant indicators from the 2030 Agenda for Sustainable Development. Subsequently an additional 17 indicators, primarily drawing from the indicators used in the IPBES global assessment were identified (see CBD/SBSTTA/22/5). These were noted in Subsidiary Body recommendation 22/4. An updated list of indicators based on this decision and recommendation is presented in an information document. This list of indicators could serve as a basis for the development of a suite of indicators for the post-2020 global biodiversity framework and for the identification of baselines. Similarly, it could help to inform the development of a monitoring framework for the post-2020 global biodiversity framework.

55. To further facilitate the Subsidiary Body's consideration of the points above and, in particular, how they could be articulated in a post-2020 global biodiversity framework, the Secretariat has prepared CBD/SBSTTA/23/2/Add.4. The Subsidiary Body may wish to consider this addendum when preparing its recommendation to the co-chairs of the open-ended working group.

V. SUGGESTED RECOMMENDATION

56. The Subsidiary Body on Scientific, Technical and Technological Advice may wish to adopt a recommendation along the following lines:

The Subsidiary Body on Scientific, Technical and Technological Advice,

Recalling recommendation XXI/1 and decisions 14/1 and 14/34,

1. *Welcomes* the *Global Assessment Report on Biodiversity and Ecosystem Services* issued by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services;[26]

2. *Takes note* of the information presented in the note by the Executive Secretary,[27] in particular:

(a) The overview of the findings of the global assessment prepared by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and other relevant assessments, and implications for the work of the convention and the post-2020 global biodiversity framework;

(b) The analysis of reasons for the varying levels of progress towards the achievement of the Aichi Biodiversity Targets and lessons from the implementation of the Convention, its Protocols and the Strategic Plan for Biodiversity 2011-2020;

3. *Requests* the Co-Chairs of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework to consider this information when preparing documentation for the second meeting of the Working Group;

4. *Invites* the Open-ended Working Group on the Post-2020 Global Biodiversity Framework to consider this information in its deliberations;

5. *Takes note* of the progress made in preparing the fifth edition of the *Global Biodiversity Outlook*, including the first draft and its summary for decision makers;

6. *Urges* Parties, and *invites* other Governments and relevant organizations and experts to participate in the peer review process for the fifth edition of the *Global Biodiversity Outlook*;

7. *Requests* the Executive Secretary to revise the draft of the *Global Biodiversity Outlook* in the light of comments made at the twenty-third meeting of the Subsidiary Body on Scientific, Technical and Technological Advice as well as other comments by Parties, other Governments, relevant organizations and experts;

8. *Urges* Parties that have not yet done so to submit their sixth national reports to the Executive Secretary;

9. *Welcomes* the financial support provided by Canada, the European Union, Japan and the United Kingdom of Great Britain and Northern Ireland for the preparation of the fifth edition of the *Global Biodiversity Outlook* and, recalling decision 14/35 of the Conference of the Parties, *invites* Parties, other Governments and relevant organizations in a position to do so to provide timely financial contributions for the preparation and production of the fifth edition of the *Global Biodiversity Outlook* and its related products, in line with the work plan and budget estimates for its preparation.

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[26] https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services

[27] CBD/SBSTTA/23/2 and addenda.