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

Addendum

OBSERVATIONS ON POTENTIAL ELEMENTS FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Note by the Executive Secretary

BACKGROUND

1. As part of the preparatory process for the development of the post-2020 global biodiversity framework adopted by the Conference of the Parties in decision [14/34](#), the Subsidiary Body on Scientific, Technical and Technological Advice was requested to contribute, at its twenty-third and twenty-fourth meetings, to the development of the post-2020 global biodiversity framework in support of the work of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework. In the same decision, the Co-Chairs of the Open-ended Working Group were requested to integrate the outcomes of discussions in the Subsidiary Body into the post-2020 global biodiversity framework.
2. During its first meeting, the Open-ended Working Group invited the Subsidiary Body on Scientific, Technical and Technological Advice to bring to the attention of the Working Group any recommendations relevant to the post-2020 global biodiversity framework emerging from its deliberations, in particular from its consideration of the findings of the *Global Assessment Report on Biodiversity and Ecosystem Services* of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). More specifically, the Working Group invited the Subsidiary Body to provide elements concerning guidance on specific goals, specific, measurable, achievable, result-based and time-bound (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.
3. Accordingly, the present addendum has been issued to support the deliberations of the Subsidiary Body related to the development of the post-2020 global biodiversity framework. The present document has been prepared drawing on submissions received in response to the invitation for proposals on the post-2020 global biodiversity framework, the outcomes of regional and other consultations undertaken as part of the process for developing the framework, the results of the first meeting of the Open-ended Working

* CBD/SBSTTA/23/1.

Group on the Post-2020 Global Biodiversity Framework and available scientific evidence, including the findings of the of the IPBES Global Assessment.¹

4. A summary of the findings of the IPBES Global Assessment and other relevant assessments and their implications for the future work under the Convention, especially with respect to the post-2020 global biodiversity framework, is provided in document CBD/SBSTTA/23/2/Add.1, while document CBD/SBSTTA/23/2, section I, provides an overview of the key implications. These assessments document the current status of biodiversity, identify the drivers of change, explore scenarios for identifying pathways that could lead to the 2050 Vision, and identify possible approaches and actions to bring about the transformational changes required to achieve the 2050 Vision.

5. The IPBES Global Assessment and other relevant 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 considering the lag times inherent in socioecological systems, it will take some time to achieve the fundamental changes needed to reduce many of the drivers of these trends. Moreover, many ecosystems and species require time for recovery once threats are reduced. Thus, while a 2030 timescale is appropriate for the implementation of urgent actions, a longer timescale – to 2050 – is also important to allow for a positive vision. A “back-casting” approach can be used to infer the actions needed to achieve the 2050 Vision and to determine milestones for 2030 and 2040.

6. The specific language of the framework (e.g. the definitions of its elements, including goals, and targets) is in process of being developed and will be consolidated in the zero draft to be published six weeks prior to the second meeting of the Working Group on the Post-2020 Global Biodiversity Framework. Thus, this document provides suggestions for the development of various elements. Section I below provides information related to possible long-term goals for the post-2020 global biodiversity framework. Section II provides information related to its possible 2030 mission. Section III provides some considerations for the development of future targets. Section IV provides information on indicators, baselines and monitoring frameworks. The Subsidiary Body on Scientific, Technical and Technological Advice may wish to consider this information and to provide a recommendation to the Working Group on the Post-2020 Global Biodiversity Framework and its Co-Chairs.

7. The present addendum is supported by several information documents, including an overview of the proposals for targets submitted by Parties and observers, and information on currently available biodiversity indicators.

I. POSSIBLE LONG-TERM GOALS

8. In its conclusions regarding scenarios for the 2050 Vision for Biodiversity, the Subsidiary Body noted, in recommendation XX1/1, that “the 2050 Vision (“Living in harmony with nature” where “by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people”) contains elements that could be translated into a long-term goal for biodiversity and provide context for discussions on possible biodiversity targets for 2030 as part of the post-2020 global biodiversity framework”.

9. Throughout the consultation process for the post-2020 global biodiversity framework, there has been a call to articulate more clearly what the 2050 Vision means in measurable terms. One way of doing this is to use long-term outcome-oriented goals for 2050 (i.e. statements tied to a change in status or condition associated with biodiversity and/or well-being).

¹ 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>. See also 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.

10. In addition to providing further specificity and measurability to the 2050 Vision, these goals could also serve an important communication role. Several elements should be considered in the development of such goals:

(a) The goals should be linked to the 2050 Vision and the more specific 2030 Mission and any 2030 targets. Similarly, the 2030 Mission and targets should also contribute to the achievement of the goals;

(b) Goals should be high level and measurable to be communicated to a broader audience as well as be associated with something that can be tracked over time. This could be accomplished by articulating them in relation to a baseline value or year, or by expressing them in relation to their current status;²

(c) These long-term goals can help to establish a common purpose, guide action over intermediate time periods and engage and motivate actors. This would require scaled-up and creative communication and outreach efforts to bring the issue to the attention of large audiences and stakeholders and mobilize impactful action. Clear communication on the pathway forward, including for such actors as business and financial industry, in addition to governments, civil society, and people at large, is essential to define avenues and roadmaps to meeting such long-term goals;

(d) Long-term goals are useful to provide a positive vision, given the lag times inherent in socioecological systems. Current trends for biodiversity are generally highly negative, with many drivers currently increasing in intensity. It will therefore take some time to achieve the fundamental changes needed to improve these trends and many ecosystems and species will require time to recover once the threats are reduced;

(e) For long-term goals to be effective as communication tools, they should be limited in number and simple to communicate.

11. In the light of the points listed above, the Subsidiary Body may wish to consider the desirability and potential focus of long-term outcome-oriented goals. Given the power of these 2050 goals to communicate the ultimate purpose of the framework, and the associated benefits for people, goal statements could consider the following:

(a) *Species* – A goal may address the concepts of preventing extinctions, increasing the abundance of species and/or on the desired status of species in 2050. Such a goal may consider the improved status of threatened species or maintenance/prevention of risk for all species. It may also relate to genetic diversity. Indicators, such as the Red List of Threatened Species of the International Union for Conservation of Nature (IUCN) or the Living Planet Index, could be used to provide a baseline and assess the progress for such a goal;

(b) *Ecosystems* – A goal could be formulated to reflect a change in the trends of ecosystem loss, degradation, fragmentation and/or the desired future status of ecosystems in 2050. Given the diversity of ecosystems, multiple indicators or a composite index may be required to establish a baseline for such a target and to monitor progress in its attainment;

(c) *Benefits* – A target focused on ensuring that the benefits provided by biodiversity, both for planetary integrity and for meeting communities and societal needs would help to link the goals with the overall purpose of the 2050 Vision.

² It is important to avoid potentially perverse formulation of the goals. For example, a long-term target focused on halting biodiversity loss by 2050 could theoretically be reached by first converting all-natural habitats to other purposes by 2040. Therefore, from 2040 to 2050, biodiversity loss would effectively be halted. However, this specificity would not necessarily need to be included in the formulation of the goal itself but could instead be captured in some preambular or associated text. Future targets could also provide additional contextualization.

II. 2030 MISSION

12. 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 of “Living in harmony with nature”. During the consultation process to date and the first meeting of the Working Group on the Post-2020 Global Biodiversity Framework, it was suggested that a mission statement for the post-2020 global biodiversity framework could, among other things:

- (a) Be ambitious, actionable forward looking, evidence based and inspiring;
- (b) Be succinct easy to communicate and relevant to different audiences;
- (c) Articulate what needs to be achieved in 2030, how and who will benefit from it;
- (d) Serve as a milestone to the 2050 Vision for Biodiversity;
- (e) Reflect the desired state of biodiversity in 2030;
- (f) Be phrased as an action-oriented statement related to desired changes;
- (g) Reflect the three objectives of the Convention and the Protocols;
- (h) Be based on the elements of the 2050 Vision;
- (i) Refer to the 2030 Agenda for Sustainable Development;
- (j) Address the drivers of biodiversity loss and reflect a pressure state impact response model;
- (k) Reflect mainstreaming;
- (l) Highlight the importance of biodiversity for both planetary integrity and human well-being;
- (m) Recognize the work that has already been undertaken on biodiversity issues.

13. An inspirational and motivating mission statement which promotes action and is consistent with the points raised above but which is also succinct and easy to communicate implies the need for conciseness and breadth, and to addresses those points implicitly rather than explicitly. Such a mission statement could then be supported by a rationale providing additional context and specificity. For example, a mission statement and explanatory text formulated along the lines below could constitute a 2030 mission statement for the post-2020 global biodiversity framework:

Implement solutions across society to address biodiversity loss and enhance benefits contributing to the global development agenda and, by 2030, putting the world on a path to achieve the 2050 vision.

14. To “implement solutions” indicates a positive action-oriented approach. “Across society” indicates that actions are needed by all actors, individually, collectively and at all scales and across all sectors (i.e. mainstreaming). To “address biodiversity loss” means that the direct and indirect drivers of biodiversity loss must be addressed to improve the status of biodiversity. “Enhance benefits” highlights elements of nature’s contributions to people and a strong link to the delivery of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals. The 2030 deadline articulates that this mission is a milestone on the way to the 2050 Vision of “living in harmony with nature” and reinforces the need for urgent action this decade.

15. This mission statement should be considered in conjunction with the other elements of the framework.

III. TARGETS

16. Targets are defined as “SMART”³ statements that capture what we want to achieve or do within a specific time period towards long-term goals. They can be applied to biodiversity, actions, human benefits, or even relevant aspects of the means of implementation.

17. The development of future biodiversity targets should be based on the available evidence, including the assessments of IPBES, and on what this evidence identifies as being needed to bring about the transformational changes required to be living in harmony with nature by 2050. Similarly, the formulation of future targets should consider the 2050 Vision for Biodiversity, links between biodiversity and the 2030 Agenda for Sustainable Development, the reasons for the varying levels of progress towards the achievement of the Aichi Biodiversity Targets and the lessons learned from the implementation of the Convention, and its Protocols. Some of these elements to consider are identified in the chapeau document to this addendum. Similar issues have also been highlighted in the conclusions from the Working Group on the Post-2020 Global Biodiversity Framework as well as through the post-2020 consultation processes.

18. The available evidence indicates that solutions addressing various issues related to biodiversity will be needed in an effective and comprehensive response to the global decline of biodiversity and the benefits it provides. The development and finalization of future targets should be aligned with the elements of the framework that matter most for achieving the 2050 Vision and goals and should allow measurement and tracking of progress. They should consider:

- (a) The three objectives of the Convention;
- (b) The various components of biodiversity (ecosystems and habitats, species, and genetic diversity);
- (c) The various components of the 2050 Vision (biodiversity valued, conserved, restored, wisely used and ecosystem services maintained)
- (d) The drivers of biodiversity loss;
- (e) The benefits from the use of biodiversity and the sharing of those;
- (f) The specific actions needed to reduce threats to biodiversity and achieve long-term goals;
- (g) Various sectors.

19. Throughout the consultation process it has been noted that themes and/or issues covered by the Aichi Biodiversity Targets could serve as a basis for the development of future biodiversity targets. However, it has also been observed that the Aichi Biodiversity Targets have several gaps and limitations which should be considered in the development of future targets. These issues are further discussed below. In addition, there are also general or cross-cutting issues which can be considered in the development of targets. These are also further discussed in the subsequent sub-section of this note.

A. Gaps and limitations of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets

20. The Strategic Plan for Biodiversity 2011-2020 addressed issues related to the underlying causes of biodiversity loss (Goal A), reducing the direct pressures on biodiversity (Goal B), improving the status of biodiversity (Goal C) and the benefits derived from it (Goal D) and enhancing implementation (Goal E). However, despite this wide scope at the level of the Goals, the Aichi Biodiversity Targets had a number of gaps and limitations. Some of the gaps and limitations of the current Strategic Plan, identified in the light of the IPBES Global Assessment and other assessments, are:

³ One list of “SMART” criteria is specific, measurable, achievable, results-based and time-bound (for example in the conclusion of the first meeting of Working Group on the Post-2020 Global Biodiversity Framework (CBD/WG2020/1/5)). In other contexts, the criteria: strategic, assignable, action-oriented, ambitious, realistic and relevant, among others, have been used.

(a) Many of the Aichi Biodiversity Targets are formulated in relation to the threats to biodiversity. By comparison, there are few targets focusing on the benefits provided by biodiversity or on its contributions to sustainable development, including, for example, health, food security, and mitigation of and adaptation to climate change. In the future framework, having some targets which are articulated around the various benefits provided by biodiversity may allow for a more complete and enabling perspective. A greater focus on the benefits provided by biodiversity may also provide an opportunity to incorporate issues related to rights-based approaches as well as intergenerational equity as discussed during the first meeting of the open-ended working group;

(b) The Aichi Biodiversity Targets cover the mainstreaming of biodiversity only in the agricultural, forestry, aquaculture and fishery sectors under Targets 6 and 7. Moreover, the Targets do not address the enabling role that biodiversity plays in these sectors, for example through the provision of ecosystem services, in supporting activities in these sectors. It also does not reflect possible nature-based solutions to global societal challenges;

(c) Underlying drivers of biodiversity loss related to behaviour and institutions are not addressed directly;

(d) The issue of the overexploitation of species is largely limited to the aquatic environment, and, in particular, the marine environment;

(e) The pollution target focuses on excess nutrients. Pollution by plastic, pesticides and other chemicals, and by noise are not covered explicitly;

(f) There is no target directly related to climate change as a driver of biodiversity loss. Moreover, the future or long-term impacts of climate change and their implications for biodiversity management are not addressed;

(g) The targets related to habitat refer to reducing the pressures on them (Aichi Target 5), to ensuring their protection (Aichi Target 11) and their restoration (Aichi Target 15). However, there is no target on the actual status of natural habitats, their quantity or quality;

(h) The target on species focuses on those species which are known to be threatened. There is no target focusing on common species or on their abundance. Further, there is no target related to the trade of species;

(i) The issue of biosafety is not reflected;

(j) The issue of capacity-building is not reflected;

(k) The consideration of gender is limited to a reference to women in the context of vulnerable groups in Aichi Biodiversity Target 14. There is no target on gender issues generally or the role that women can play as agents of change.

21. Parties may wish to take these issues into consideration when developing their recommendations to the Working Group on the Post-2020 Global Biodiversity Framework.

22. In consideration of its guidance to the Working Group relating to the drivers of biodiversity loss, the Subsidiary Body may wish to take into account the information contained in the annex, which summarizes and organizes possible target themes and elements, and provides observations based on the assessments noted herein, the consultation process undertaken to develop the post-2020 global biodiversity framework and the submissions received.

B. General considerations for the development of targets

23. In addition to these specific issues and gaps, there are a number of additional more general or cross-cutting considerations which should be kept in mind when developing targets:

(a) The targets should be achievable within the timeline indicated. For example, there are some desired biodiversity outcomes whose achievability in a 10-year period may not be scientifically

realistic in view of the time lags that exist between when an action is taken and when the results become visible in natural systems;

(b) The targets should be developed with due consideration of the actions and changes that the available evidence indicates are required to bring about the transformations required to live in harmony with nature by 2050;

(c) The targets which are established should link to the 2050 Vision and any longer-term goals so that they are positioned as milestones rather than end points in and of themselves. Further, future targets will need to be developed in such a way as to collectively complement each other in order to catalyse the changes required to put the world on track to reach the 2050 Vision;

(d) The targets, to the extent possible, should be “SMART”. However, there are some issues for which developing fully “SMART” targets will be difficult if not impossible at the current time, given the data, methodologies and technologies that exist. The inability to develop a “SMART” target for a specific issue should not lead to an important issue being omitted. Similarly, caution should be taken to avoid setting targets solely on the basis of topics with indicators that can be easily measured. This could result in setting targets on issues of lesser importance while ignoring more important issues. It could also result in setting perverse targets, as noted above in paragraph 10(b) and footnote 2;

(e) The framework is global in nature. However, consideration should be given to developing global targets which can be disaggregated or otherwise adapted to the regional, national or subnational scales, and be actionable at those scales;

(f) Targets can reflect the desired outcomes in biological, human well-being, economic, threat reduction, or other conditions. Targets can also be developed for actions, and, as such, reflect the completion, appropriate management, or other activities with desired completion within the time period of the framework;

(g) To the extent possible, targets should be articulated in simple and easy to understand language and avoid combining too many issues so as to facilitate monitoring and communication. During the post-2020 consultation process and the first meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework, it was noted that one way of addressing this challenge could be through the use of sub-targets;

(h) Depending on the number and scope of targets, it may be helpful to organize these around a few headings to help provide a clearer structure to the framework and to assist in communication.

IV. INDICATORS, BASELINES AND MONITORING FRAMEWORKS

24. Indicators, the baseline and the monitoring framework will all be necessarily tied to the development of long-term goals and SMART targets.

25. 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 for the 2030 Agenda for Sustainable Development. The list also included indicators currently available for use and indicators under development. Subsequently, an additional 17 indicators, primarily drawing from the indicators used in the IPBES Global Assessment were identified. These were noted in Subsidiary Body recommendation 22/4. An updated list of indicators based on this decision and this 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.

26. The current list of indicators for the Strategic Plan for Biodiversity 2011-2020 was welcomed by the Conference of the Parties in decision XIII/28, and it was noted that the list of global indicators provided a framework to be used, as appropriate, for assessing progress towards the Aichi Biodiversity Targets at the global level and by Parties, other Governments and international organizations. In the same decision, it was emphasized that the list of indicators provides a flexible framework for Parties to adapt, as appropriate, to their national priorities and circumstances. In practice, the list of indicators has been

primarily used for monitoring progress at the global level, for example through the *Global Biodiversity Outlook*. The available evidence from national reports and other sources suggests that the use of the list of global indicators for national-level monitoring by Parties has been limited. The Subsidiary Body may wish to consider this issue when reflecting on the potential indicators for the post-2020 global biodiversity framework.

27. Historically, indicators have been addressed by the Convention as a stand-alone issue. While the indicators identified by the Convention have been consistent with the Convention's overall approaches to monitoring, there has not been a close relation between them and other monitoring frameworks used by the Convention. Parties may therefore wish to consider what the relation is between these indicators any future monitoring framework for the Convention and the post-2020 global biodiversity framework.

28. Once target nomenclature and formulation have been further developed, global indicators will be tied to each of 2050 goals and the 2030 targets, taking into consideration the need for national and regional targets to scale up to global targets and vice versa.

29. One of the main tasks of the Conference of the Parties is to keep the implementation of the Convention under review. At each meeting of the Conference of Parties following the adoption the Strategic Plan for Biodiversity 2011-2020, there were one or more agenda items related to monitoring and review. Reviews were undertaken on the basis of information provided by Parties through their national biodiversity strategies and action plans and their national reports and from such reports as the *Global Biodiversity Outlook*. The various elements of these reviews were also generally first considered by one of the Convention's subsidiary bodies. For the post-2020 global biodiversity framework, Parties may wish to consider adopting similar modalities, including review of the implementation of the framework by the Conference of the Parties and its subsidiary bodies at each of their meetings between the adoption of the framework and 2030. Similarly, Parties may wish to consider what modifications to the Convention's current processes may be needed as well as what additional monitoring frameworks may be required. For example, the Convention has several ongoing review processes under the Subsidiary Body on Scientific, Technical and Technological Advice and the Subsidiary Body on Implementation which could be brought closer together in the post-2020 period. In addition, the Subsidiary Body on Implementation at its third meeting is expected to explore the development of enhanced review mechanisms under the Convention to strengthen implementation under the post-2020 global biodiversity framework.

Annex

POSSIBLE TARGET THEMES AND ELEMENTS

Target topics ⁴	Observations ⁵	Link to current Aichi Target ⁶
Biodiversity and conservation outcomes		
Habitats	A target could focus on the status of habitats (e.g. amount or percent of habitat in a natural state); address issues related to habitat quality, including fragmentation, connectivity, and integrity; could apply generally to all habitats and/or specify specific habitats. Separate targets or elements may be required for terrestrial, marine and freshwater habitats. (see also: “Site-based measures”; “Habitat loss”).	Habitats are addressed in Aichi Target 5 (habitat loss), Aichi Target 11 (Protected Areas) and Aichi Target 15 (restoration). However, none of these targets refers specifically to the status of habitats.

⁴ The consultation process of the post-2020 global biodiversity framework, the first meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework, submissions from Parties and stakeholders as well as the information identified in the present note on the implication of relevant assessments and lessons learned from implementing the Convention have identified various topics which could be reflected through targets in the post-2020 global biodiversity framework. An initial list of these topics is reflected in this table. These topics have been grouped around the headings in the highlighted row. However, depending on the scope and content of the future targets, the specific target topics could be relevant to different and/or multiple headings. In addition, an information document provides a compilation of specific proposals for targets received through the various consultation processes on the post-2020 global biodiversity framework.

⁵ The information in this column identifies gaps and other issues which could be considered in the formulation of targets. These gaps and issues were identified based on the experiences with implementing the Strategic Plan for Biodiversity 2011-2020, the assessments referenced in the present note as well as the submissions received as part of the consultation process for the post-2020 global biodiversity framework.

⁶ The information in this column identifies if and how a specific topic has previously been addressed through the Aichi Biodiversity Targets.

Target topics ⁴	Observations ⁵	Link to current Aichi Target ⁶
Species	A target could focus on the status of species (risk status, population abundance); on threatened and/or common species; on the status of genetic diversity; on specific species (such as cultivated plants), genetic diversity more generally, and/or phylogenetic diversity.	Aichi Target 12 focuses on threatened species (avoiding extinction and improve status). It does not address the decline or status of common species nor does it address issues related to abundance or the health of populations. Genetic diversity is addressed in Aichi Target 13 which focuses on safeguarding genetic diversity and developing strategies to address genetic erosion. The Target places a strong emphasis on the conservation of genetic diversity in cultivated plants and domesticated animals, compared to wild species. Although some attention is directed towards “wild relatives” and “socioeconomically” and “culturally valuable species”, the species description largely omits wild species that comprise the vast majority of the genetic diversity on the planet.
Direct drivers		
Land-use change	A target on habitat loss could focus on reducing the overall rate of habitat loss. The target could focus on habitat generally or specify specific habitats the loss of which are judged to be particularly important. It could also address more general issues related to land-use planning, which would allow issues related to urbanization and infrastructure development to be addressed.	Habitat loss is addressed under Aichi Target 5. The target is general but has a specific element related to forests.
	A site-based measures target could focus on the conservation of specific sites through protected areas and other effective area-based conservation measures. It could focus on the area to be conserved and/or the specific biodiversity features of sites, as well as management effectiveness. It could also address attributes at the landscape level including connectivity.	This issue is addressed in Aichi Target 11, an outcome-oriented target which refers to the quantitative and qualitative aspects of protected areas and other effective area-based conservation measures. Beyond formally protected areas, there may be a need for a target on the retention of natural habitats more generally. Further a target referring to site-based protection made be needed.
	A restoration target could focus on the restoration of converted and degraded areas; on the area to be restored and or the specific biodiversity and or ecosystem services to benefit from such restoration. It could be general or specifying particular types of habitats/ecosystems.	This issue is addressed in Aichi Target 15, an outcome-oriented target which focuses on ecosystem resilience, carbon sequestration and the restoration of 15% of degraded ecosystems. However, the focus on a quantitative area target does not optimize restoration of biodiversity.

Target topics ⁴	Observations ⁵	Link to current Aichi Target ⁶
Overexploitation	Targets on overexploitation of living resources (terrestrial, freshwater and marine) could also address management of harvest and trade, incentives and consumer choice (demand management).	Sustainable management is addressed in Aichi Target 6 (for aquatic living resources) with a focus largely on the marine environment. There is no associated target for terrestrial species. Target 6 does not directly address trade.
Invasive alien species	A target on invasive alien species could address issues related to the prevention of introduction, control and eradication of invasive alien species.	Invasive Alien Species are addressed in Aichi Target 9, an action and outcome-oriented target related to the control eradication and management of invasive alien species and their pathways.
Climate change	A target could address climate change as a major driver of biodiversity loss. It could focus on the role biodiversity can play as a nature-based solution to climate change mitigation and adaptation.	Aichi Target 10, an outcome-oriented target, is focused on reducing the pressures on habitats particularly vulnerable to the impacts of climate change, including coral reefs. The target does not directly address climate change as a driver of biodiversity loss.
Pollution	A target could focus on major types of pollution, including nutrients, pesticides and other chemicals as well as plastics. It could also address issues related to waste management.	Pollution is addressed in Aichi Target 8 on pollution. The target focuses on reducing pollution, including nutrients, generally.
Use and value of nature		
Material goods from nature	Targets could address how Nature meets the need of people and provide livelihood to communities and to societies (e.g. dollar value; timber volume; fish volume).	This issue is addressed in Aichi Target 14, with focus on the protection and restoration of ecosystems for the purpose of the continued provision of ecosystem services. Aichi Target 14 refers to human health in a general sense.
Regulating services of nature	Targets could address regulating services Nature provides, such as flood protection, water purification and etc., are ensured for all (e.g. people served; people shielded from risks); could also focus on optimizing the benefits from biodiversity for specific types of activities, including sustainable agriculture, forestry and fisheries, climate mitigation and adaptation and would help to address the issue of nature-based solutions for various societal challenges, such as food security.	
Non-material (cultural) services of nature	Targets could ensure that cultural (including ceremonial and religious) needs of people are met and are accessible to all.	

Target topics ⁴	Observations ⁵	Link to current Aichi Target ⁶
Existence and intrinsic values of nature	Nature (and biodiversity) in itself is valued independently of the services it provides to people. Citizen across our planet value the notion that a thriving nature is present globally and is secure. See also targets on species and habitats.	This topic is not specifically addressed in the Aichi Biodiversity Targets.
Equitable sharing of benefits from the use of genetic resources	Target could focus on the fair and equitable sharing of benefits arising from the use of genetic resources.	This issue is addressed in Aichi Target 16, an action and outcome target focused on the operationalization of the Nagoya Protocol on Access and Benefit-Sharing.
Tool, solutions and leverage points		
Incentives	A target could focus on eliminating perverse incentives, including subsidies; address issues related to government planning as well as the financial sector.	This issue is addressed in Aichi Target 3, an action an outcome-oriented target focused on positive and negative incentives. The target focuses role of governments in either eliminating harmful incentives or putting in place positive ones.
Laws, regulations and policies	A target could focus on the existence and use of legal and regulatory tools to support targets addressing drivers and use. This could include inter alia species management, land management, trade, management of threats, and measures to influence demand.	These topics are not specifically addressed in the Aichi Biodiversity targets.
Sustainable consumption and production	A target could focus on to promote sustainable consumption and production processes. Such a target could focus on reducing the overall demand for resources and could also addresses issues related to unsustainable trade, illegal trade in wildlife or human-wildlife conflicts. It could also refer to nature base solutions for improving sustainability.	This issue is addressed in Aichi Target 4, a process-oriented target related to plans for sustainable production and consumption. The target refers to a range of actors but does not specify the sectors where actions should be taken.
Values of biodiversity	Such a target could focus on ensuring that the multiple and diverse values of biodiversity are fully recognized and reflected in decision-making, at all levels. It could also include the integration of these values by governments and the private sector.	This issue is addressed in Aichi Target 2, a process-oriented target focused on the integration biodiversity values in relevant government policies. It does not focus on valuation issues more generally.

Target topics ⁴	Observations ⁵	Link to current Aichi Target ⁶
Other issues for transformational change	Targets could address other indirect drivers identified by IPBES (categorized as follows: demographic and sociocultural; economic and technological, institutional and governance; conflicts and epidemics). IPBES also identifies “levers” and “leverage points” for transformational change.	These topics are not specifically addressed in the Aichi Biodiversity Targets.
Enabling conditions		
National planning processes	Target could focus on the need to promote coherence in national planning processes and to ensure that national biodiversity strategies and action plans are adopted as whole of government strategies. More broadly, there is a need for adequate implementation and governance mechanism by setting up national multisectoral and multi-stakeholder platforms, alignment of NBSAPS, regular and cyclical uplift in ambition and action, equity, equality, openness and inclusion.	This issue is addressed in Aichi Target 17, an action and outcome-oriented target focusing in the development and implementation of national biodiversity strategies and action plans.
Resource mobilization	Target could focus on recognizing the critical role of financial resources for implementing the Convention. The target could focus on ensuring resources are provided through all sources.	This issue is addressed in Aichi Target 20, an outcome-oriented target focused on increasing the amount of financial resources from all sources for implementing the Strategic Plan.
Capacity-building	Target could focus on the need for capacity-building for the implementation of the post-2020 global biodiversity framework.	The issue of capacity-building is not explicitly addressed in the Aichi Biodiversity Targets, though it is addressed in other parts of the Strategic Plan for Biodiversity 2011-2020.
Traditional knowledge	Target could focus on recognizing the importance of traditional knowledge and the involvement of indigenous peoples and local communities in the implementation of the post-2020 global biodiversity framework could be developed. Such target could address issues related to the greater recognition of territorial and land-tenure rights, biocultural diversity, the protection of environmental defenders, and the sharing and protection of traditional knowledge.	This issue is addressed in Aichi Biodiversity Target 18, an action and outcome-oriented target focused on the recognition and respect of the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources.

Target topics⁴	Observations⁵	Link to current Aichi Target⁶
Knowledge and technology	Target could focus on the need to improve the amount, availability and accessibility of knowledge and technologies related to biodiversity.	This issue is addressed in Aichi Target 19, an action-oriented target focused on improving the knowledge science based and technologies related to biodiversity and the sharing and application of this.
Awareness	Target could focus on people’s awareness of biodiversity.	This issue is addressed in Aichi Target 1 focused on people’s awareness of biodiversity and of the actions which can be taken to protect it.
Cross-cutting issues		
Gender	Target could focus on recognizing the importance of gender considerations as cross-cutting issue and on the role, rights and participation of women in biodiversity management. Such a target could also reflect the importance of women as agents of change.	This issue is partially addressed in Aichi Biodiversity Target 14, an outcome-oriented target which refers to the provision of essential services for vulnerable groups including women.
Biosafety	Target could focus on the safe use of living modified organisms and synthetic biology.	This issue is not addressed in the Aichi Biodiversity Targets.