Ms. Kelly Torck
Acting CBD National Focal Point
A/Director General, Biodiversity Policy and Partnerships, Canadian Wildlife Service
Environment and Climate Change Canada
351 St-Joseph Blvd., 16th Floor
Gatineau, QC, KIA OH3

**Elizabeth Maruma Mrema**
Executive Secretary
Secretariat of the Convention on Biological Diversity
United Nations Environment Programme
E-mail: secretariat@cbd.int

Monday, March 22, 2021

Dear Ms. Maruma Mrema,

In response to CBD Notification 2021-012 - Peer review of draft documents for the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 24), please find enclosed Canada's official response.

Best regards,



Kelly Torck
Acting CBD National Focal Point

**Kelly Torck**
A/Director General for the Biodiversity Policy and Partnerships Directorate
Canadian Wildlife Service
Environment and Climate Change Canada
351 St-Joseph
Gatineau, QC
K1A 0H3
Canada

**Kelly Torck**
Directeur Général intérimaire
Politiques et des partenariats sur la biodiversité
Service Canadien de la Faune
Environnement et Changement Climatique Canada
351 St-Joseph
Gatineau, QC
K1A 0H3
Canada

**Template for the review of the document on scientific and technical information to support the review of the proposed goals and targets in the updated zero draft of the post-2020 global biodiversity framework**

## TEMPLATE FOR COMMENTS

| *Contact information* | |
|---|---|
| **Surname:** | Cator |
| **Given Name:** | Dena |
| **Government** (if applicable)**:** | Canada |
| **Organization:** | N/A |
| **Address:** | |
| **City:** | Ottawa |
| **Country:** | Canada |
| **E-mail:** | dena.cator@canada.ca |

| ***General comments*** |
|---|
| The following peer review comments from Canada do not represent the Government of Canada's final views on document CBD/SBSTTA/24/3/Add.2. They should also not be interpreted as supporting or not the updated zero draft of the post-2020 global biodiversity framework or any of its proposed goals, milestones, targets or indicators. |
| Canada had understood that this document was supposed to be a technical and scientific review of the updated zero draft, and focus on what the scientific evidence is to support the target (or not), make changes to the target, and/or provide scientific and technical advice on the "quantifiable" part of the goals and targets. However, the document, with a few exceptions, does not fulfill this request, and instead veers into non-SBSTTA, non-scientific and non-technical criteria and views. This therefore ends up repeating and reiterating the previously shared general rationale for the various goals and targets. This is not what Parties' requested from the Secretariat for this SBSTTA item at OEWG-2. |
| Canada appreciates that many new, current and emerging references to scientific literature, reports and statistics have been used to develop the ADD2 document which is very helpful in developing the rationale for the components of the post-2020 Global Biodiversity Framework. |
| It is confusing to need to review both document CBD/SBSTTA/24/3/Add.2 which is described as a summary document while also referring to, as suggested, various information documents: CBD/SBSTTA/24/INF/9, CBD/SBSTTA/24/INF/20 and CBD/SBSTTA/24/INF/21. CBD/SBSTTA/24/INF/21 still has not be released yet, so it is not possible to complete the |

| |
|---|
| peer review without being able to refer to this document. INF/9 focuses on the zero draft of the post-2020 global biodiversity framework rather than the updated zero draft, and much thinking has evolved since the zero draft was created, in terms of significant feedback provided by CBD Parties at OEWG2 on elements of the zero draft that they found useful, and not as useful. Both that feedback and the peer review need to be in one document showing why certain choices were made in goal / target / indicator wording. We see several elements still in the updated zero draft for example that we did not hear a lot of support for at OEWG2. An example of this is the continued mention of wilderness and intact areas in Target 1 in terms of the challenge to define and measure this vs areas of high ecological integrity. While there is some discussion of this in inf doc 9, the discussion is not connected to actual decisions on goal, target, indicator wording suggested in the updated zero draft and draft monitoring framework. The ADD2 document mentions wilderness and intact areas as well but just describes information rather than producing a 'storyline' of why certain words need to be used in the goal / target / indicator wording over others (in terms of being strongly linked and measureable – e.g. because of this scientific data and also strong support for this at OEWG2 by Parties, and also because there is a direct indicator that can measure this, we propose using this word in the goal / target wording to capture 'areas of high ecological integrity'). Another example of this is that Goal A in the zero draft was characterized by the language "No net loss by 2030 in the area and integrity of ecosystems" while in the updated zero draft it focuses on "The area and integrity of natural ecosystems increased by X%". There is no clear, succinct and focused explanation in any of the documents why this change was made. We also heard a lot of support for 'net gain' to be used at OEWG2 and this is also outlined in the ADD2 / inf doc 9 documents but again there is no pattern of providing the evidence leading to a conclusion in terms of a possible way forward. Currently, ADD2 and inf doc 9 are a jumble of information that need to be more cleanly presented as per the recommendations here. It would be useful if the next iteration of this ADD2 document and / or documents complementing the first draft of the post-2020 global biodiversity framework actively show the flow of ideas and arguments from OEWG2 and peer reviews in terms of explaining what proposals are put forward for goal and target wording as well as indicators, in particular headline indicators, and why. |
| The information provided in this ADD2 document is interesting but it's missing direction. General information is provided on the rationale for elements of goals and targets (e.g. for species) but it's not clear if what is presented is justifying the specific goal / target / indicator wording that is in the updated zero draft or is making additional points – there needs to be a link between the information presented and what is being recommended in the updated zero draft (or for the first draft of the framework). |
| There should be better consistency in the information provided. For each goal and target, the information provided should address the 4 elements outlined in paragraph 5a. relevance of the topic; b. status and trends; c. evidence/ considerations for level of ambition; and d. links between the targets and goals and actions to achieve targets. |
| This document is a strong start with its incorporation of traditional knowledge and recognition of the increased need for Indigenous and local community participation in monitoring biodiversity. There is potential to strengthen these clauses through acknowledgement of systemic challenges related to the privileging of scientific monitoring methods above those of Indigenous experts (as documented for example in Shaffer (2014) and Wiseman and Bardsley (2016)). Explicitly factoring in issues of power and governance when designing and reporting on biodiversity information, |

| |
|---|
| monitoring methods, and indicators will be important moving forward to ensure Indigenous values are embedded in proposed targets (e.g, Target 20).<br><br>Shaffer, L. J. 2014. Making sense of local climate change in rural Tanzania through knowledge co-production. Journal of Ethnobiology 34(3):315-334. https://doi.org/10.2993/0278-0771-34.3.315<br><br>Wiseman, N. D., and D. K. Bardsley. 2016. Monitoring to learn, learning to monitor: a critical analysis of opportunities for Indigenous community-based monitoring of environmental change in Australian rangelands. Geographical Research 54(1):52-71. https://doi.org/10.1111/1745-5871.12150 |
| There is a bias in the information towards terrestrial ecosystems over marine and freshwater. This includes a disproportional number of examples from terrestrial ecosystems. This should be rectified. Also, no reference is made to the conservation of soil biodiversity. |
| The full and effective participation of Indigenous Peoples and local communities is not well articulated throughout the document. This also applies to youth, women and marginalized groups. |
| The recognition and inclusion of traditional knowledge and practices is missing in the information provided for almost all goals and targets. As per the Akwé: Kon Guidelines, traditional knowledge should be respected and given the same consideration as other forms of knowledge. |
| There is a need for more information on links to human health, especially in light of the global pandemic. |
| It would have been useful to see scientific and technical information supporting appropriate baselines for the targets in this document. |
| In general, the amount of science brought forward in support of the targets is limited. Some consideration could be given to including additional sources. |
| Section IV outlines how the current targets relate to the Aichi targets, the objectives of the CBD and other important work on biodiversity. However, it would be useful to include some of this within the discussion of the proposed targets in the updated zero draft themselves. |

***Specific comments***

| **Page** | **Paragraph** | **Comment** |
|---|---|---|
| 1 | 3 | It is not clear what this document is for – how this will link with the post-2020 Global Biodiversity Framework itself. The introduction to the document says 'The Working Group at its second meeting invited the Subsidiary Body on Scientific, Technical and<br><br>Technological Advice at its twenty-fourth meeting to carry out a scientific and technical review of the updated goals and targets, and requested the Executive Secretary to provide information to support that review. Accordingly, the present document |

| | | |
|---|---|---|
| | | provides information to support the scientific and technical review of the proposed goals and targets in the updated zero draft …" and complements the ADD 1 document. Canada has already commented extensively on the draft monitoring framework in our submission for SBSTTA24, which is a part of this, so we assume that comments on this ADD2 document will complement that and inform the development of the first draft of the framework (e.g. if we find technical issues with the rationale provided for suggested goals / targets / indicators). |
| 2 | 5 | For Para 5. (a), it would be useful to add at the end of the sentence: "in relation to the objectives and programmes of the CBD's work". Every element of the current Updated Zero Draft is important making it difficult to question the rationales provided in this document. However, it is essential to reflect on whether all these elements can be addressed by this Convention. The sentence would read: "Outline the relevance of the topic addressed by the proposed goal or target in relation to the objectives and programmes of the CBD's work". |
| 3 | 9 | Suggested edit in red underline: "Current trends show that most indicators of biodiversity (including natural ecosystem extent, species conservation status and population abundance) and nature's contributions to people, are declining." |
| 3 | 11 | "The proposed mission statement, "To take urgent action across society to put nature on a path to recovery for the benefit of people and planet," …" should read as per the updated zero draft as "To take urgent action across society to put biodiversity on a path to recovery for the benefit of planet and people". |
| 3 and 4 | 11 | "A more ambitious approach would see no-net loss of the status of biodiversity and nature's contributions to people during the decade 2021-2030, or even a net gain, while a less ambitious approach would see the status in 2030 below current levels, but still on an upward curve (see figure 1, curves A and B)." If the graph on page 3 is figure 1, it is not labelled as such and needs to be. It also needs to be made clear if the graph is extracted directly or derived from Mace et al (2018) and if the wording above is from that scientific paper as well? Referring to 'no net loss of the status of biodiversity' as well as 'nature's contributions to people' seems a bit strange – it seems that more accurate phrasing would be something like 'no decline in the status of biodiversity' or 'no net loss of biodiversity'. Also, the graph does not seem to directly address 'nature's contributions to people' though mentioned in the text. Further, in footnote #10 which this paragraph also refers to, it says "even with achieving no-net loss or net-gain in ecosystem extent by 2030 (by a combination of reducing and halting loss and degradation and increasing restoration) (see curve A in figure 1), this might not be achieved for species indicators (see curve B in figure 1)". The text of footnote 10 seems to refer the graph focusing on no net loss or gain in ecosystem extent rather than |

| | | |
|---|---|---|
| | | biodiversity as per paragraph 11 wording – this needs to be further clarified, particularly as the graphs in Mace et al (2018) refer separately to: "conservation status (i.e. global extinction risk), population trend (changes to average population abundance) and biotic (biome / ecoregion) integrity". The overall message that we need to 'turnaround' both ecosystem and biodiversity loss is clear but the delivery of this message needs to be clarified and refined a bit more. |
| 4 | Heading III | While the goals are addressed here and targets later in section IV, the milestones are not addressed. |
| 4 | 15 | "The extent and integrity of ecosystems are essential for the protection of species and genetic diversity ..." As Goal A focuses on ecosystems, species and genetic diversity, clear indicators will be needed to merge the appropriate concepts – e.g. both extent and integrity will need to be measured, and ideally combined in one indicator (e.g. measuring the extent of high integrity ecosystems over time). |
| 4 | 15 | For consistency "extent" should be replaced by "area". Or at least the indicator and goal / target wording should be made consistent. |
| 4 | 16 | Relating to the above comment on paragraph 15, the document outlines "natural ecosystems" "to be those whose species composition is predominantly native<br><br>and determined by the climatic and geophysical environment". However, this definition is not currently included in CBD/SBSTTA/24/INF/11, though definitions of "intact areas" and "wilderness areas" are (as per Target 1 which would subsume under Goal A). The document also says that "Integrity refers to the compositional, functional, structural and spatial components of ecosystems." More important than definitions is what indicator(s) that exist which would best (most accurately) be able to measure "natural", "intact", "wilderness" or "high ecological integrity" areas, as well as connectivity which is also mentioned in the goal wording and in this paragraph. |
| 4 | 16 | Connectivity should be better defined. Could include notion of ecological, functional, and structural connectivity and could clarify that connectivity applies to terrestrial, aquatic and even aero. Text implies connectivity only applies to "fragmented patches" which are assumed to be terrestrial, thus need to include marine and freshwater examples. Also the inclusion of vertical connectivity should also be considered. Identification of indicators would help with this. |
| 5 | 18 | Reducing "current rates of loss elsewhere" is not clear and should be better defined. |
| 5 | 18 | "To reach the 2050 Vision, a significant net increase in both area and integrity of natural ecosystems is needed." Net increase is mentioned here and was discussed at OEWG2 in |

| | | |
|---|---|---|
| | | terms of 'net gain' but this is not currently reflected in the Goal A / Target 1 wording - perhaps it should be depending on the indicator chosen (and we see that 'net gain' is specifically referenced in paragraph 18. |
| 5 | 18 | Both references of studies that suggest "that an increase in the extent of natural ecosystems of the order of 10 to 15 per cent, globally, across all ecosystem types, by 2050 may be feasible" are based on terrestrial analyses. Are there any marine examples? |
| 5 | 18 | "Models, scenarios and other studies suggest that an increase in the extent of natural ecosystems of the order of 10 to 15 per cent, globally, across all ecosystem types, by 2050 may be feasible." This is helpful detail that could provide guidance – is this implying then that for Target 1, the percentage for restoration should be 15%? The first reference that is provided to substantiate the 10-15% (Leclère et al. 2020) speaks about 'bending the curve' of biodiversity loss (improving it) through an integrated strategy (e.g. species and ecosystem / land / marine planning together) which makes sense. The second reference provided (Strassburg et al. 2020) is also helpful in identifying priority areas for restoration across terrestrial biomes and highlighting that restoring 15% of these areas could avoid 60% of expected extinctions while sequestering 30% of the total CO2 increase in the atmosphere since the Industrial Revolution". See also comments on page 12, paragraph 52. |
| 5 | 19 | Regarding the statement "achieving no net loss in biodiversity by a certain date would require achieving no net loss in ecosystem extent at an earlier date" - is there literature / data similar to paragraph 18 about what kinds of ratios exist (e.g. if maintaining x% of high ecological areas, it could avoid x% of expected extinctions)? Conserving 30% of terrestrial areas and 30% of marine areas globally will contribute to achieving no net loss in ecosystem extent. Together with restoration, and also sustainable management – if all implemented effectively, will this allow 'bending the curve' of biodiversity loss? In other words, what quantifiable targets do we need for maintaining ecosystems in addition to restoring them plus mainstreaming biodiversity in managed ecosystems (e.g. in agriculture, forestry) to 'bend the curve' of biodiversity loss, and can this all be measured (and how)? The connection between the literature and what is being recommended for goal / target and indicator wording needs to be presented in a crystal clear way if this document is to be of use for further refining the global biodiversity framework. For example, the document could be constructed with this kind of rationale model: "Target x wording element '….' was proposed because of x,y,z studies (listed) showing that this is what is needed to halt biodiversity loss. This can directly be measured by 'x' indicator". Otherwise it is just a long list of information that is hard to wade through – it needs to be more targeted in demonstrating a point (what goal / |

| | | |
|---|---|---|
| | | target / indicator wording is needed and why). This could be presented in a more linear way in this document to help generate draft 1 of the GBF – e.g. "Relating to the species element for Goal A, x&y studies show that x% increase of x and # y actions are needed to achieve x by 2030, measured by indicator z. This results in Goal A wording '…', and headline indicator '…' proposed for the framework". |
| 5 | 20 | "The outcomes of conservation and restoration activities for the abundance and diversity of species, genetic diversity and ecosystem functions and services strongly depend on location" – is this justifying 'areas important for biodiversity' being important for Goal A / Target 2 wording / indicators? And how important is this compared to the % global area to be restored, conserved, mainstreamed (e.g. should all / most currently defined areas of importance for biodiversity (such as Key Biodiversity Areas) be conserved by 2030? What elements should take precedence in the goal / target wording and why? It would be very helpful if the descriptions in this document were linked to making targeted and substantiated recommendations (and corresponding arguments) for goal / target / indicator wording and percentages (similar to the information on restoration . |
| 5 | 22 | For consistency "extent" should be replaced by "area". Or at least the indicator and goal / target wording should be made consistent. |
| 5 | 22 | "Proposed target 1, addressing land-/sea-use change, contributes directly to improving ecosystem extent and integrity, while targets 4 – 7 address other direct drivers of biodiversity decline and the need for sustainable activities for all other land and sea (such as that being used for agriculture, forestry, aquaculture, etc." |
| 6 | 28 | This paragraph describes how the various targets currently complement each other in supporting Goal A to address species concerns in the updated zero draft of the post-2020 global biodiversity framework, which is throughout the document for other themes. While this is useful, the document needs to go beyond this and bring more clarity to the particular goal / target and indicators that have been suggested to date. |
| 7 | 29-33 | It is helpful for the summary/ rationale for the goal component on genetic diversity to be further elaborated upon, but in the absence of a specific target on genetic diversity, or language in relevant targets pointing specifically to genetic diversity, it will be difficult to raise decision-makers' or public awareness of this integral component of biological diversity. Indicators will be even more critical for focusing national and international efforts to measure and monitor any progress. |

| | | |
|---|---|---|
| | | There is evidence, cited well in CBD/SBSTTA/24/INF/9, that indicate that genetic diversity is critical for biodiversity conservation and sustainable use, and knowledge continues to grow on this topic (see for example two recent reviews of the state-of-the-art knowledge in genetic diversity (Des Roches et al 2021 Nature Ecology and Evolution, Stange et al 2020 Nature Reviews Genetics)). This scientific and technical review should further explore this evidence and how it should be reflected in the GBF. Genetic diversity receives minimal further mention in this document's analyses of relevant targets (T1, 2, 3, 4-7, 9, 12, 13-20), only reappearing briefly re. target 1 (para 52) and the Global Strategy for Plant Conservation (para 128). The document should consider how this evidence should be reflected in these targets' contributions to maintaining genetic diversity, and thus adaptive potential, within the text under each of those targets. For example for Target 1, it is important to emphasize that connectivity requires genetic exchange between populations of species at rates ensuring long-term retention of genetic diversity. Genetic diversity also seems relevant to Target 8, in the context of providing the underlying qualities for nutrition, food security and health. |
| 7 | 32 | "While population abundance is a key factor in the maintenance of genetic diversity, it is not a sufficient indicator since it does not account for within-population genetic diversity, hence the need for genetic diversity to be explicitly included in the Goals." This is an important point but would be useful if it could be referenced. |
| 8 | 39 | This should be re-phrased as an active statement. |
| 9 | 41 | It would help to bring the last sentence up to be the 1st sentence'…from their Utilization~~.~~ , and ~~ABS also~~ provides an important incentive for the conservation and sustainable use of biodiversity' |
| 9-10 | 42-45 | This text is not particularly useful as no information is presented to support a way forward on measuring non-monetary and monetary benefits (beyond the obvious in paragraph 44 that consideration should be given on how information on non-monetary benefits can be collected and aggregated), although it is helpful to see the relevance of other targets in paragraph 45. |
| 10-11 | 46-50 | This section notes the importance of capacity building, science and technology transfer, sharing of experiences and lessons learned as key elements of the implementation goal. Unfortunately, the review of current status and trends as well as information related to considerations of level of ambition exclusively looks at financial resources and subsidies. There is no information or scientific/technical evidence provided related to the other identified elements of implementation and this represents an important gap. |

| | | |
|---|---|---|
| 11 | A | "Reducing threats to biodiversity". The title of this section is focused on reducing threats to biodiversity. However, Target 1 is about spatial planning and restoration. Scientific and technical information should be provided on how these two elements are directly related to a specific "threat" to biodiversity. |
| 11 | 50 | Section F of the updated zero draft identifies "Knowledge generation, management and sharing for effective biodiversity planning, policy development, decision-making, implementation and transparency" as a key implementation support mechanism. This means that the target 19 should also be named as an important target feeding into Goal D. |
| 11 | 51 | This paragraph references "habitat loss" as a major direct driver of biodiversity loss. We would suggest using the terminology used by IPBES "changing use of sea and land". This should include consideration of marine and freshwater ecosystems (and accordingly sea use change) and language and examples similar to those provided for terrestrial ecosystems. |
| 11 | 51 | The bracketed text focuses attention on ecosystem types undergoing land use change "Under business-as-usual scenarios, land use change (including deforestation and the loss and fragmentation of wetlands, savannahs, grasslands, and other ecosystems)". We would suggest that the focus of the text should be on the "uses"/activities that are causing the changes: "Under business-as-usual scenarios, land**/**sea use change (for expansion of agriculture, forestry, fisheries and infrastructure development) is projected to remain the largest driver of ~~terrestrial~~ biodiversity loss~~, mainly due to the expansion of agriculture as well as infrastructure development~~.". This would be more in line with the focus of section "A. Reducing threats to biodiversity". |
| 11-12 | 51 and 52 | There is lacking supporting information for marine environments and marine spatial planning. |
| 12 | 51 | A definition for spatial planning should be provided. Defining which indicator(s) can measure progress on spatial planning will help as well. |
| 12 | 52 | This paragraph is focused on terrestrial ecosystems and should be expanded to include equal consideration and examples for marine / coastal and freshwater ecosystems, including restoration of land / sea area. |
| 12 | 52 | 1. A reference to CBD Decision XIII-5 could be added here; including a reference to the agreed definition of "ecological restoration" in paragraph 4 of the Decision.<br>2. This rationale is highly focused on land restoration yet the current target wording mentions "degraded freshwater, marine and terrestrial…" Marine and other aquatic ecosystem restoration goals (if applicable) **and their rationale** should be equally presented here. This includes, but is not limited to, the types of restoration (a) to (c): |

| | | |
|---|---|---|
| | | "Restoration may include: (a) restoring converted habitats ~~lands~~ back to natural states ~~habitats~~; (b) improving the ecological integrity of degraded natural habitats; and (c) rehabilitating converted and degraded habitats ~~lands~~ ~~(e.g. degraded agricultural lands)~~ to improve both productivity and integrity." |
| 12 | 52 | The example on restoring converted lands (15%) to potentially avoid extinctions (60%) should include an equal analysis on how restoration will improve ecological integrity, genetic diversity, and connectivity. In addition, examples should provide comparable information for marine and freshwater systems. See also comments re: page 5 para 18. |
| 12 | 52 | Middle of the paragraph, "…studies show". Only one modelling study is cited, thus "a study has suggested" would be more appropriate. More information / updated wording is needed to address the challenges of closing yields gaps by 75%. |
| 12 | 52 | We note that this paragraph indicates the need for a net gain of natural ecosystem area by 2030. However, the concept of net gain is not included in the wording of the target. Is the document suggesting that "net gain" be included in the target wording? This is not clear. |
| 12 | 53 | A better definition of comprehensive spatial planning is needed. Defining which indicator(s) can measure progress on spatial planning will help as well. |
| 12 | 53 | There is a reference to spatial planning being practiced variously and unevenly among countries. Recommend including a brief explanation as to why that may be the case (e.g., lack of capacity, money, stakeholder buy-in, etc.). |
| 12 | 53 | Consideration of how land degradation and restoration are adversely affecting indigenous peoples and local communities, as well as women and youth, could be presented. |
| 12 | 54 | 1-2 paragraphs are needed to explain why "well connected and effective system" and "areas particularly important for biodiversity" was retained from the previous Aichi Target 11 wording whereas "areas of particular importance for ecosystem services, the notion of equitably managed, ecologically representative and integrated into the wider landscapes and seascapes" was not included in Target 2. Some of these elements may now be included in other proposed targets, however it would be useful to provide some information on how these important elements are being addressed and are reflected in the proposed targets. |
| 12 | 54 | It would be valuable to include a paragraph in ADD2 to support the inclusion of "effective and equitable management" in Target 2. This could draw on recent literature on the topic and experience with Aichi Target 11. Some recent papers on terrestrial, marine and freshwater include: |

| | | |
|---|---|---|
| | | dos Santos Ribas, Luiz Guilherme, et al. "A global comparative analysis of impact evaluation methods in estimating the effectiveness of protected areas." Biological Conservation 246 (2020): 108595.<br><br>Geldmann, Jonas, et al. "A global-level assessment of the effectiveness of protected areas at resisting anthropogenic pressures." Proceedings of the National Academy of Sciences 116.46 (2019): 23209-23215.<br><br>Negret, Pablo Jose, et al. "Effects of spatial autocorrelation and sampling design on estimates of protected area effectiveness." Conservation Biology 34.6 (2020): 1452-1462.<br><br>Lee, Woon Hang, and Saiful Arif Abdullah. "Framework to develop a consolidated index model to evaluate the conservation effectiveness of protected areas." Ecological Indicators 102 (2019): 131-144.<br><br>Ban, Natalie C., et al. "Social and ecological effectiveness of large marine protected areas." Global Environmental Change 43 (2017): 82-91.<br><br>Acreman, Michael, et al. "Protected areas and freshwater biodiversity: A novel systematic review distils eight lessons for effective conservation." Conservation Letters 13.1 (2020): e12684. |
| 12 | 54 | An example is given for the amount of KBAs covered by protected areas. A similar example should be given for EBSAs in the marine environment. Also, the review quotes that 19% of Key Biodiversity Areas are completely within protected areas, however this does not reflect the division between terrestrial and marine. It is important to note that only 2% of the ocean is designated as KBAs (compared to 9% land). |
| 12 | 54 | It is recommend that the review provide information on biodiversity outcomes and the other qualitative aspects of protected areas, including ecological representativeness and the importance of well-connected systems. |
| 12 | 54 | The quantitative elements of Aichi Target 11 (17 % and 10%) will most likely be met once data submitted to WDPA in late 2020 is processed. This statement should be updated. |
| 12 | 54 | The use of the word ‘planet’ in the target wording is confusing – we understand that the target is to conserve 30% of land, 30% of marine. |

| | | |
|---|---|---|
| 12 | 54 | There is no information provided on IPLCs or their crucial role in effective and meaningful conservation, as highlighted in the IPBES report. There is ample scientific and technical evidence about this that should be further explored and highlighted. |
| 12-13 | 54-56 | We recommend specific reference in ADD2 to the importance of PAs and OECMs in a marine context for Target 2 - the focus at present is heavily terrestrial. The use of language such as 'land surface', and 'land-use' can underrepresent the importance of marine and coastal biodiversity. References to the ocean should be placed alongside reference to the land. |
| 12-13 | 54-56 | There is reference to marine spatial planning (MSP) in paragraph 53, but suggest specifically referencing MSP under the discussion of target 2 (i.e., how MSP will relate to conservation efforts). |
| 13 | 55 | A rationale for protecting 30% of the planet (including ocean and freshwater) should be provided here. The rationale for 34% is based only on several vertebrate groups. Information should be added to better articulate why at least 30 % is needed (i.e. the science behind this percentage). The current examples only address a limited set of terrestrial measures. There are extensive studies that support conserving at least 30% of the planet's lands and oceans, and we are concerned that this paragraph doesn't reflect the breadth of this research. Additionally, this evidence includes numerous studies specifically related to marine conservation, so we are concerned that there is no single, explicit mention of scientific support for the marine component of this target. Lastly, there is significant research documenting the importance of expanding protected area coverage to help achieve climate goals, and we believe that it is important to highlight that data.<br>To address these points, we request that the following studies are incorporated into and explicitly addressed in the final version of this document:<br>• A comprehensive review of 144 studies found that the current spatial target is insufficient to protect biodiversity, preserve ecosystem services and achieve socio-economic priorities. On average, the data found that 37% of the ocean must be conserved in order to achieve these environmental and socio-economic goals.<br>• A group of IUCN experts published a review of the literature on area-based conservation and concluded that there is ample support for the protection "of a minimum of 30% and up to 70%, or even higher" of the planet's land and ocean. The authors concluded that the call for 50% of the Earth to be conserved "is supported by a range of studies."<br>• Over a dozen global experts also established the need to conserve at least 30% of the planet's land and ocean by 2030, in addition to setting aside another 20% of the planet as "climate stabilization areas" that would be protected from large-scale changes in land cover. It is important to note that the experts found this expanded protection to be an important way to help achieve the Paris Climate Accord goals. |

| | | |
|---|---|---|
| | | • A "Global Safety Net" to reverse biodiversity loss and stabilize Earth's climate also demonstrates how expanded nature conservation addresses the overarching interrelated threats of biodiversity loss and climate change, showing that beyond the 15.1% land area currently protected, 35.3% of land area is needed to conserve additional sites of particular importance for biodiversity and stabilize the climate. |
| 13 | 55 | "For example, covering all currently identified Alliance for Zero Extinction sites and other Key Biodiversity Areas, hotspots of endemic species, and other areas with a high density of threatened species from the IUCN Red List, would require 2.4 per cent additional to the current terrestrial protected area coverage."<br><br>Why aren't EBSAs included here? Also, it would be useful to hear if it is recommended to reflect this language in Target 2 language and / or indicators. |
| 13 | 55 | Useful statistics are provided in terms of what is required for increased terrestrial protected area coverage to safeguard biodiversity. We would welcome similar information being presented for marine and coastal biodiversity to reflect the importance of marine and coastal ecosystems for habitat and species protection and for provision of ecosystem services (such as food, climate adaptation and mitigation, disaster resilience). For example, Jones *et al. (2020)* identifies 8.5 million km2 of priority marine conservation areas to safeguard biodiversity. Waldron *et al.* (2020) reported that the economic benefits of protecting land and ocean outweigh the financial costs. The cost of adequately protecting 30% of the earth's land and oceans has been estimated between $103bn and $177.5bn per annum. Analysis suggests that achieving this in two biomes alone could result in economic benefits of $170bn to $530bn (value in ecosystem services and environmental catastrophe risk avoided) per annum by 2050. |
| 13 | 56 | Focus is on terrestrial and land-use - equal weight should be given to marine and freshwater. There need to be marine examples. |
| 13 | 56 | There is evidence that Indigenous peoples play a central role in achieving biodiversity outcomes, including in existing protected areas and in a significant portion of the world's remaining natural areas. As such, we request incorporating the following findings into the final document:<br><br>-Traditional or contemporary stewardship and governance of lands and seas by IPLCs can often be the most effective at achieving biodiversity conservation outcomes. (Local Biodiversity Outlooks 2 (LBO2), 2020) |

| | | |
|---|---|---|
| | | -The IPBES Global Assessment found that 35% of all areas that are currently under formal protection and 35% of all remaining land areas with very low human intervention are traditionally owned, managed, used, or occupied by indigenous peoples. This extensive overlap underscores the central role that Indigenous Peoples play in conserving biodiversity and would play in achieving an expanded protected area target. |
| 13 | 56 | Page 13, paragraph 56: This paragraph states that "*many recent proposals converge on protecting about 30 % of the land surface by 2030*". We would suggest also referring to the wealth of scientific evidence and proposals which support 30 % conservation of the ocean. For instance, O'Leary *et al.* (2016) provided a review of 144 studies to show that the current global target of 10% protection of the ocean by will not be enough to meet the objectives set out in the 2030 Agenda for Sustainable Development. Woodley *et al.* (2019) describes the various proposals for conservation, concluding that there is support for a minimum of 30% coverage and the need for an emphasis on quality elements. |
| 13-14 | 58-59 | While we agree with the focus on species-specific management interventions to address continuing biodiversity loss complementing Target 2 as well as Target 1 and others, we have been thinking about whether something more is needed, such as a coordinated approach for particular species, species groups, regions, etc. We understand that some thinking is taking place in this regard. What does the scientific and technical evidence base show us in this regard? The indicator(s) for this will need to help clarify how progress can be measured in this regard. |
| 14 | 59 | Marine and freshwater considerations should also be include here. |
| 14 | 60 | Better positioning of the linkages to human health in terms of disease transmission using recent lessons from the global pandemic could be added as per the reference to the pandemic in paragraph 63 on use and trade. |
| 14 | 60-62 | While the information provided on human-wildlife conflict (HWC) is interesting, we are not sure that HWC, while very important for wildlife loss in some areas, is a major driver of species loss such as land / sea change and thus whether it would need to be included in Target 3. Is there scientific evidence in this regard? In addition, where it makes reference to it being difficult "to determine the specific quantitative level or amount of human wildlife conflict" and it being "necessary to identify appropriate indicators of such conflict", we view these as valid concerns and are thus not sure if this element is realistic to include in Target 3 wording. |
| 15 | 63 | The wording is not very coherent. Suggest:<br>~~Further, while broad concepts of sustainability might include safety for human and animal health inter alia, reducing the risk of future pandemics is useful for clarity~~. Illegal and unsustainable use and trade of species is associated with threats to biodiversity and human health, in particularly regarding links to disease emergence and future |

| | | |
|---|---|---|
| | | pandemics. Reference could be made to the report from the IPBES Workshop on Biodiversity and Pandemics. |
| 15 | 64 | Regarding 64.(a) A range of actions will be required to reach the proposed target. For example:<br><br>(a) Scenarios suggest that investing in fisheries management (inclusive of distant water fleets), combatting illegal, unreported and unregulated fishing and removing harmful subsidies, could, by 2030, end overfishing, rebuild many stocks, and reduce threats to endangered species while increasing the provision of food, reducing costs and prioritizing the nutritional and livelihood needs of those most dependent on fisheries;<br><br>It would be good to give examples of specific measures / actions, properly referenced, in addition to removal of subsidies to reach the target. Language may need to be oriented around combatting IUU fishing.<br><br>In addition, the "scenarios" mentioned above should be properly references and supported by clear evidence, as this is a scientific and technical review. |
| 15 | 65 | Monitoring, control and surveillance of transshipment activities is a required action to address the legality and sustainability of wild fish species during transportation and trade. Proposed target 17 provides direct support to this through the focus on eliminating harmful subsidies and redirecting subsides to support legal, sustainable and safe harvest, trade and use of wild species. To assist with Target 4 and Target 17, the document should further explore how more effective monitoring measures on Transshipment activity could be paramount, given that TS confuses the reporting process, use of Electronic Monitoring and Observes for transshipments would assist greatly in addition to the subsidies. |
| 16-17 | 66-70 | 1. Considerations of how invasive alien species are adversely affecting indigenous peoples and local communities and culturally significant species should be further explored as it has been our experience that this is an important element..<br>2. Considerations of the potential impacts of climate change on the introduction/spread of invasive species could be further explored when developing target wording and indicators on IAS. |
| 17-18 | 71-72 | 1. It is not clear if the levels of pollution reduction proposed in paragraph 72 are synonymous with or will achieve "levels that are not harmful to biodiversity and |

| | | |
|---|---|---|
| | | ecosystem functions". Scientific information on those none-detrimental levels or the lack of information available clearly need to be presented in this document.<br>2. Additionally, paragraph 71 mentions the negative impacts from noise/light as well as hazardous material (i.e. mercury and cyanide) on biodiversity yet no reduction levels are being proposed in paragraph 72 for these types of pollutants. Is this an omission or is this because there is no scientific evidence to support this, in which case then it should be highlighted as a gap that needs to be addressed? |
| 18 | 73 | Target should read "mitigation and adaptation". |
| 18-19 | 73-75 | Canada would stress the need to include scientific and other information on how climate change is affecting biodiversity and on actions to limit the impacts of and adapt to this threat. In other words on how to maintain integrity and functions of key ecosystems and species that are most impacted by climate change. |
| 18-19 | 74 | Paragraph 74 states: "Further, actions to increase contributions to climate change mitigation adaption and disaster risk reduction from nature-based solutions and ecosystem-based approaches are also closely related to proposed target 10 which also addresses nature-based solutions." But the paragraph does not goes into addressing/ justifying why this overlap exists and how the two targets are different and complementary, and/or how the scientific and technical evidence points to the need for these two targets. This should be addressed. |
| 19 | 75 | Canada would suggest removing the following sentence from para 75 as it is not clear how it relates to biodiversity and we believe that this goes beyond the scope of the CBD: " ~~The phase-out of fossil fuels requires the development of alternative, renewable energy sources, as well as improved energy efficiency~~." |
| 20 | 80-81 | It might be worth noting interconnections - land use change and unsustainable production and consumption are also key drivers for the emergence of infectious zoonotic diseases, which impacts the health of humans and wildlife. There is ample evidence of these connections, which should be references and further explored in this document. |
| 20 | 80-81 | These two paragraphs seem to reflect the reasons why the achievement of the proposed goal is of importance, but breaks with the type of content provided in relation to the other targets and does not outline the scientific case for the target.<br><br>Areas of science and technical information that should be included relate to the basis of the link to productivity gaps, as no information is provided as to what could be a legitimate goal, nor what the current baseline is, and particularly, how the productivity gap relates to biodiversity. Of note, some efforts to improve productivity can be contrary to biodiversity goals. Areas of high productivity are not necessarily areas of sustainable use or conservation of biodiversity, and these points have not been |

| | | |
|---|---|---|
| | | addressed here. Also lacking in this section are any linkages to nature-based solutions in productive sectors.<br><br>Furthermore, these paragraphs are focused nearly exclusively on agriculture, and do not detail the science of the target with respect to other productive sectors. |
| 20 | 81 | The last sentence is incomplete and the intent of the sentence is not fully clear. |
| 21 | 84 | 1. This raises the problem of overlap within the Global Biodiversity Framework, and the question of the need for some targets on this.<br>2. Consideration should be given on the differences between EbA vs NBS. Further technical information on these differences would be helpful here to assist Parties in their thinking on this matter. |
| 22-23 | 88-90 | The T12 discussion adds little beyond listing off 3 other international ABS instruments/ fora, and nothing more is clarified about how the proposed target could complement the goal. Little evidence is provided to support a scientific and technical review of the proposed target. |
| 23 | 85-87 | This section is focused on benefits from biodiversity for human health and well-being. Are these benefits measurable? Information on the amount of biodiversity in urban areas and the relationship to human health and well-being is weak. Increasing biodiversity in urban areas could increase access to biodiversity for urban dwellers. This section could be strengthened by providing more research about the relationship between biodiversity in urban areas the co-benefits for human health. |
| 23 | 90 | Typo: to be taken to ensure ~~of~~ or facilitate benefit-sharing. |
| 24 | 95 | This should say: “The actions taken to ~~the~~ reach this …” |
| 25 | 98 | Middle of the paragraph, “biodiversity friendly business”. What does this mean? If there is a definition or standard, then it should be referenced. |
| 25 | 98 | Sustainable consumption could also reference IUU fishing as these activities have direct negative impacts on sustainability of world fisheries. Reducing the overall need for resources and limiting waste, bycatch and discards, the amount of fish that could be utilized even if it is bycatch in place of discarding at sea, some fisheries would have to change to avoid bycatch as for many fisheries it is unavoidable. The trend in the past 30 years at least has been greater pressure on resources. |
| 26 | 99 | In light of the global pandemic and this target on human health, the document could briefly examine the evidence to support integrated approaches (e.g. One Health) and linkages between biodiversity and human health. |

| | | |
|---|---|---|
| 26 | 99-101 | These paragraphs do not provide support for the draft target language - in fact they make a good case for adjusting the target's focus.<br><br>(a) They do not help explain or justify the jump in language/scope from CBD Art. 8(g) on LMOs to (all of?) 'biotechnology' in draft Target 12.<br><br>(b) Para 99 notes the CBD also has provisions on environmentally safe biotechnologies, but this positive aspect of biotechnology is not reflected in the target.<br><br>(c) The lack of systematic quantitative information on adverse impacts on biodiversity is noted in para 100.<br><br>(d) Para 101 makes the understandable argument for using Cartagena Protocol measures, but these apply to LMOs, not to (all of) biotechnology, as called for by the draft target.<br><br>(e) No mention is made of impacts to human health, or how such impact could be measured. |
| 26 | 103 | In addition to subsidies being harmful to biodiversity, they also enable vessels to go further afield and make it artificially viable economically to exploit vulnerable marine ecosystems, overfish sensitive stocks and engage in IUU fishing activities with the associated human rights abuses, thousands of miles from home port. There is ample evidence in this regard and this document should reference and explore this evidence. |
| 26-27 | 102-104 | Target 17 looks at both positive incentives and harmful subsidies yet the assessment of target 17 only provides information related to harmful subsidies. The review of current status and trends and information related to considerations of level of ambition should also include information related to the quantities and types of positive incentives currently available. |

*Comments should be sent by e-mail to secretariat@cbd.int by 22 March 2021*