Mr. Scott Wilson on behalf of Mr. Basile van Havre
CBD National Focal Point
Director General, Biodiversity Policy and Partnerships, Canadian Wildlife Service
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Elizabeth Maruma Mrema
Executive Secretary
Secretariat of the Convention on Biological Diversity
United Nations Environment Programme
E-mail: secretariat@cbd.int

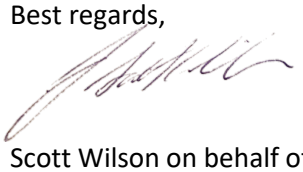
August 14, 2020

Dear Ms. Maruma Mrema,

In response to notification 2020-045, please see below for Canada's comments on the draft monitoring framework for the post-2020 global biodiversity framework.

We appreciate the opportunity to comment on this important document and look forward to engaging in a more comprehensive manner on the proposed indicators before, at and after SBSTTA-24.

Best regards,



Scott Wilson on behalf of Basile van Havre
CBD National Focal Point

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CANADA'S COMMENTS ON THE DRAFT MONITORING FRAMEWORK FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK.

We have learned from the *2011-2020 Strategic Plan for Biodiversity* that it has been difficult for Parties to track progress in achieving the Aichi targets. Recent progress reports have shown that there has been little to no progress made towards some of the targets. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services' (IPBES) 2019 Global Assessment indicates that "most of the Aichi Biodiversity Targets for 2020 will be missed". One reason that can explain this lack of progress is that we do not have the right instruments and processes in place to track the implementation of the strategic plan.

For this reason, many Parties, including Canada, have stated that targets and indicators must be developed concurrently, and Canada recognizes the strides that the Co-Chairs, the Secretariat and the UNEP-WCMC in collaboration with the Biodiversity Indicators Partnership have taken to address this request. Canada is appreciative of the opportunity to peer-review these important documents ahead of SBSTTA-24.

Canada's approach to this peer review is focused on identifying key gaps and issues in order to ensure that the document that is put before Parties ahead of SBSTTA-24 is as complete as possible to facilitate efficient, comprehensive and effective negotiations. In this sense, we will first provide some overarching suggestions that are focused on improving the structure and addressing gaps in content of the document so that it can be the most organized, systematic and useful for negotiators. Secondly, based on these suggestions, we are proposing an alternative format for the table to present the numerous possible indicators against set criteria that describe their features in a systematic and standardized way, thus allowing for comparison, review and comment by Parties. The criteria are largely drawn from the UNEP-WCMC Inf. Doc., though we have added a few suggestions (see section 2 below for details). Third and lastly, we are providing some additional specific comments on the draft document, in the peer review format requested, for your consideration.

1. <u>Key suggestions to improve the document:</u>

1.1. *Purpose of the Monitoring Framework:* The draft monitoring framework should first clearly articulate what its purpose is and how it will be used. For example, the monitoring framework should include a section that outlines : who will be asked to provide data on each indicator and when? Will data be provided by national governments, by UN agencies, or others? This is a critical clarification that is needed as it will influence what options of indicators are the most appropriate for each goal and target. For example, if our focus is on collecting and aggregating national data, then we will need to ensure that we select indicators for which national data is available. In essence, the draft document does not present a monitoring framework as such – it simply presents a list of indicators without any guidance on how these indicators are connected to the broader elements of an actual monitoring framework. The final draft document should address this important gap.

1.2. *Indicators before Goals and Targets are Defined?*: Several Parties have noted that it would be extremely difficult to properly define monitoring indicators without having more clarity on the text

of each specific goal and target. Unfortunately, Parties have not yet defined the various goals and targets. As a result, on one hand it is premature to enter into detailed discussions on specific indicators. On the other hand, Parties have all agreed that work on indicators needs to proceed in parallel to discussions on the goals and targets. How do we then resolve this "chicken or the egg" dilemma? In various submissions provided to Notification 2019-108 in February 2020 on this topic, it was suggested that we adopt an approach of using generic themes to organize our thinking around indicators, and circle back to specific indicator issues once there is broader agreement on the goals and targets. We have seen firsthand how challenging it is to have a technical discussion about indicators with draft goals and targets that have not yet been discussed, and several of which seem to overlap, presented beside the indicators. As a result, Canada suggests that it would be wise to remove all references to the new draft goals and targets from the document and present possible indicators organized in generic themes such as "ABS", "resource mobilization", "sustainable use", and "conservation", for example. In section 2 below, Canada has re-created a table that organizes the possible indicators in this way, and helps to reduce duplication of the indicators to be reviewed as a result.

1.3. *Equipping Parties with Necessary Information:* The document should endeavor to provide Parties with the necessary information for them to be able to provide technical recommendations on post-2020 indicators. This should include the information decided upon by Parties in SBSTTA 23/1, including:

- additional information from "the Biodiversity Indicators Partnership, the Organisation for Economic Co-operation and Development and other relevant bodies" (SBSTTA 31/1 para 10);
- a compilation of views from Parties and others on indicators and baselines, submitted in response to Notification 2019-108 (SBSTTA 31/1 para 11);
- "an analysis of indicators in the sixth national reports" (SBSTTA 31/1 para 13); and
- Information on "the range of relevant existing indicators, baselines, baseline dates, or other appropriate methods for monitoring changes in biodiversity, indicator gaps, and, where relevant, options for filling such gaps and for a monitoring framework for the post-2020 global biodiversity framework" (SBSTTA 31/1 para 13).

We recognize that some of this information is touched upon in the INF document, but feel that the main SBSTTA document should contain this critical information, as requested by Parties at SBSTTA-23.

1.4. *Breadth of Indicators*: In their written submissions for Notification 2019-108 in February 2020, numerous Parties and observers also stressed that what was ultimately needed was a simple, reduced and manageable set of indicators that Parties could use to universally track national and global progress towards meeting new goals and targets. It should be noted that while CBD Parties welcomed an updated list of indicators in COP13 decision XIII/28, which are reflected in the draft monitoring framework, it has been difficult to utilize them cohesively to gauge progress on the Aichi Targets. Many of the indicators have not been used nationally, making systematic evaluation of national reports difficult. Some of the indicators have been used for global reports such as Global Biodiversity Outlook reports and the IPBES Global Assessment, but not all indicators have been suitable and these reports are not designed for monitoring per se. Canada understands that there are numerous possible indicators available – this document lists over 300 of them. But, we need to present these possible indicators in a way that will enable SBSTTA delegates to have a technical

discussion on them and ultimately arrive at a smaller, more concise set of indicators. The draft monitoring framework document is not currently organized in a way that facilitates this process.

1.5. *Indicator Assessment Criteria:* In this regard, the document and its main table could be better structured to enable SBSTTA to assess the myriad of indicators and discuss the relevant strengths and weaknesses of each. It is essential to have consistent criteria against which to evaluate the qualities of the indicators that are presented in the draft monitoring framework. The draft INF document prepared by UNEP-WCMC is a useful tool in this regard, as it presents in its Annex various criteria against which this large set of indicators could be assessed. This type of analysis, as mentioned above, is critical to allow Parties to focus the list of indicators on the ones that are the most appropriate for a post-2020 global biodiversity framework. While cognizant of the fact that it will not be possible to populate every cell with information, as much detail as possible would be extremely helpful to allow for a comprehensive and consistent analysis of all indicators. We have taken this model and developed a variation of the table, incorporating some additional criteria, and simplifying others - see section 2 below. This type of assessment of possible indicators should be included in the main monitoring framework document.

We also recommend that all of the indicators suggested during this peer review be included and evaluated in one table against the criteria as suggested below so that there can be systematic and transparent decision-making about what indicators may be best suited to measure progress on the elements of the post-2020 framework going forward. In our view it would therefore be premature to adopt or delete specific indicators until this review against criteria can be done. The indicators, if reviewed and prioritized in a systematic way, can help to define what and how we want to achieve and measure, rather than focusing only on definitions of terms in the targets and goals.

1.6. *Possible "Headline" Indicators:* One scenario which has been suggested by a number of Parties and observers is the adoption of a smaller set of "headline" indicators. These would be indicators where ideally the data is available, regularly updated, relevant at a global level and comparable amongst countries. This could include national data reported by Parties and aggregated to the global level, (similar to the World Database on Protected Areas) or data accrued at the global level that can be disaggregated to the national level (e.g. global Red List data or spatial data). Incidentally, it is not clear what is meant in the Inf doc in column 9 re: methodology available for national use vs column 11 on national data aggregated to form a global indicator. For national level indicators, it would be helpful to know how many countries are collecting the data. It would be ideal if these 'headline' indicators are or have been used for other processes, either the SDGs, IPBES assessments, GBO reports or other multilateral processes, and for the SDG indicators, for there to be information on whether they are Tier I, II or III (Tier I meaning that data are regularly produced by countries for at least 50 per cent of the countries). Individual Parties could monitor and report on other, additional indicators if they choose, and the CBD Secretariat and broader CBD community could also monitor and report on other indicators at a global level to be able to identify and highlight trends. This alternative approach deserves to be introduced in discussions on the post-2020 monitoring framework so as to enable analysis and discussion by Parties at SBSTTA-24.

1.7. *"Shared" Indicators:* It is appreciated that the draft framework uses and points to indicators that tie to the SDGs, and it would be helpful as well to clarify which ones have also been used before for the

IPBES assessments and GBO publications. Indicators relevant to other international agreements (e.g. CITES, International Treaty on Plant Genetic Resources for Food and Agriculture, CMS, etc.) should also be identified and used whenever relevant to the goals and targets.

1.8. *Indicator Gaps:* Despite efforts to simplify the collection of indicators, there will undoubtedly be areas where some additional indicators are needed, or indicators that could be adjusted for improvement. Two important areas that have been consistently highlighted by many Parties, including Canada, are indicators related to Indigenous peoples and local communities (IPLCs) and gender equality.

At CoP14, Parties welcomed advice to systematically collect, compile and communicate sex-disaggregated data, and to monitor the gender dimensions of biodiversity conservation. However, the draft document and the indicators it presents are not close to addressing this need. Further work is needed to integrate gender equality considerations into the post-2020 monitoring framework indicators. For example by including indicators that provide sex-disaggregated data whenever possible such as 1) Trends in ensuring that all men and women, in particular the poor and the vulnerable have ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance (SDGs 1.4) , 2) Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure (SDGs 1.4.2), and 3) Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control (SDG 5.a.2).

In a similar fashion, the CBD has recognized the important role of IPLCs in meeting the 3 objectives of the CBD. Discussions at WG8J-11, SBSTTA-23 and the OEWG-2 all touched on the need to integrate the role of IPLCs' throughout the Post-2020 Global Biodiversity Framework, in particular through its monitoring indicators. However, there are only a few mentions of IPLCs in the list of indicators, and numerous target areas directly related to IPLCs have indicator gaps. In this sense, further work is needed to integrate IPLC and customary use considerations into the post-2020 framework indicators. For example, indicators could be added that focus on assessing 1) IPLCs engaged in consultation and project development in relation to the access and use of traditional knowledge, customs and practices, 2) Number of NBSAPs that address the promotion of cultural and biodiversity values 3) Indigenous Protected and Conserved Areas and other Indigenous lands and territories under shared governance or/and IPLC governance schemes could be an additional monitoring element or included as a separate indicator under the other area-based conservation measures, 4)# of Parties that have identified key ecosystems that provide essential services such as the regulation of air quality, hazards and extreme events and quality and quantity of water, particularly for women, Indigenous peoples and local communities, and the poor and vulnerable, and 5) # of Parties that have established and started implementing plans for the restoration and safeguarding, if required, of key ecosystems that provide essential services such as the regulation of air quality, hazards and extreme events and quality and quantity of water for at least, including for women, Indigenous peoples and local communities, and the poor and vulnerable.

1.9. *National and Global Data Collection*: One of the key issues that arises in the INF document analysis is that of national and global data collection. One of the critical issues in monitoring the

achievement of the Aichi Targets was low levels of national data reporting, and inconsistencies between national and global data sets. This issue needs to be discussed by Parties at SBSTTA-24, yet the draft of the main monitoring framework document does not discuss the various elements of this issue or present options for improvement. In fact, the draft document simply states "The indictors [SIC] in the tables only include those which are currently operational at the global level, have underlying data and an organisation committed to their periodic update."

Notwithstanding these overarching comments, Canada's response to this peer review also provides comments for consideration regardless of which approach is ultimately taken. We would also like to make it clear that any of the comments (or lack thereof) on any of the indicators or elements related to updated goals and targets should not necessarily be interpreted as support by Canada for that goal or target.

2. Proposed Criteria Indicator Assessment Table

As mentioned above, the following table could be used as a model for an updated SBSTTA-24 main document that would better assist Parties in their collective analysis of possible indicators, assessed against key criteria:

Theme / Elements	Indicators	Responsible institution	Global or national indicator ?	What does it measure?	Format (e.g. database)	Able to aggregate / dis-aggregate?	Years data available (baseline)	How often updated?	Indicator for: SDGs, COP14/28, BIP, IPBES, GBO, etc)?	Scientific basis, pros / cons, notes
Extent of natural ecosystems										
Conserved and Protected areas / OECMs										
Other natural areas (outside of PAs / OECMs)										
Spatial use plans										
Others										
Species and genetic biodiversity										
Loss of species diversity										

Increase in species' populations										
Diversity of domesticated plants and animals										
Genetic diversity										
Others										
Nature-based solutions for biodiversity and climate change										
Biodiversity contributions to climate change mitigation and adaptation										
Nature-based solutions contribute to ecosystem services										
Others										
Mainstreaming biodiversity										
Biodiversity in policy processes										
Biodiversity in planning processes										
Biodiversity in productive sectors										
Subsidies and incentives										
Others										

Impacts of biotechnology on biodiversity										
Biosafety										
Risk assessment										
Others										
Invasive alien species										
Reduction of introductions										
Management of IAS										
Others										
Pollution										
Excess nutrients										
Plastics										
Pesticides										
Others										
Sustainable use										
Sustainable ecosystem services										
Sustainable harvest and trade of wild species										
Sustainable production										
Sustainable consumption										

Equitable benefits from resources										
Others										
Access to Genetic Resources and Benefit-Sharing										
Access to genetic resources										
Sharing benefits from utilization of genetic resources										
Others										
Means of implementation										
Financial resource mobilization										
Capacity building										
Technology transfer										
Information										
Equitable participation										
Others										

3. TEMPLATE FOR COMMENTS

Review comments on the draft monitoring framework for the post-2020 global biodiversity framework				
Contact information				
Surname:	Wilson			
Given Name:	Scott			
Government (if applicable)**:**	Government of Canada			
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Address:	351 Boulevard St-Joseph, Gatineau, QC ,			
City:	Gatineau			
Country:	Canada			
E-mail:	scott.wilson5@canada.ca			
		Comments		
Table	**Page**	**Column letter**	**Row number**	**Comment**
0	0	0	0	Key suggestions to improve the document: 1. *Purpose of the Monitoring Framework:* The draft monitoring framework should first clearly articulate what its purpose is and how it will be used. For example, the monitoring framework should include a section that outlines : who will be asked to provide data on each indicator and when? Will data be provided by national governments, by UN agencies, or others? This is a critical clarification that is needed as it will influence what options of indicators are the most appropriate for each goal and target. For example, if our focus is on collecting and aggregating national data, then we will need to ensure that we select indicators for which national data is available. In essence, the draft document does not present a monitoring framework as such – it simply presents a list of indicators without any guidance on how these indicators are

				connected to the broader elements of an actual monitoring framework. The final draft document should address this important gap. 2. *Indicators before Goals and Targets are Defined?*: Several Parties have noted that it would be extremely difficult to properly define monitoring indicators without having more clarity on the text of each specific goal and target. Unfortunately, Parties have not yet defined the various goals and targets. As a result, on one hand it is premature to enter into detailed discussions on specific indicators. On the other hand, Parties have all agreed that work on indicators needs to proceed in parallel to discussions on the goals and targets. How do we then resolve this "chicken or the egg" dilemma? In various submissions provided to Notification 2019-108 in February 2020 on this topic, it was suggested that we adopt an approach of using generic themes to organize our thinking around indicators, and circle back to specific indicator issues once there is broader agreement on the goals and targets. We have seen firsthand how challenging it is to have a technical discussion about indicators with draft goals and targets that have not yet been discussed, and several of which seem to overlap, presented beside the indicators. As a result, Canada suggests that it would be wise to remove all references to the new draft goals and targets from the document and present possible indicators organized in generic themes such as "ABS", "resource mobilization", "sustainable use", and "conservation", for example. In section 2 below, Canada has re-created a table that organizes the possible indicators in this way, and helps to reduce duplication of the indicators to be reviewed as a result. 3. *Equipping Parties with Necessary Information:* The document should endeavor to provide Parties with the necessary information for them to be able to provide technical recommendations on post-2020 indicators. This should include the information decided upon by Parties in SBSTTA 23/1, including: ● additional information from "the Biodiversity Indicators Partnership, the Organisation for Economic Co-operation and Development and other relevant bodies" (SBSTTA 31/1 para 10); ● a compilation of views from Parties and others on indicators and baselines, submitted in response to Notification 2019-108 (SBSTTA 31/1 para 11);

				● "an analysis of indicators in the sixth national reports" (SBSTTA 31/1 para 13); and ● Information on "the range of relevant existing indicators, baselines, baseline dates, or other appropriate methods for monitoring changes in biodiversity, indicator gaps, and, where relevant, options for filling such gaps and for a monitoring framework for the post-2020 global biodiversity framework" (SBSTTA 31/1 para 13). We recognize that some of this information is touched upon in the INF document, but feel that the main SBSTTA document should contain this critical information, as requested by Parties at SBSTTA-23. 4. *Breadth of Indicators*: In their written submissions for Notification 2019-108 in February 2020, numerous Parties and observers also stressed that what was ultimately needed was a simple, reduced and manageable set of indicators that Parties could use to universally track national and global progress towards meeting new goals and targets. It should be noted that while CBD Parties welcomed an updated list of indicators in COP13 decision XIII/28, which are reflected in the draft monitoring framework, it has been difficult to utilize them cohesively to gauge progress on the Aichi Targets. Many of the indicators have not been used nationally, making systematic evaluation of national reports difficult. Some of the indicators have been used for global reports such as Global Biodiversity Outlook reports and the IPBES Global Assessment, but not all indicators have been suitable and these reports are not designed for monitoring per se. Canada understands that there are numerous possible indicators available – this document lists over 300 of them. But, we need to present these possible indicators in a way that will enable SBSTTA delegates to have a technical discussion on them and ultimately arrive at a smaller, more concise set of indicators. The draft monitoring framework document is not currently organized in a way that facilitates this process. 5. *Indicator Assessment Criteria:* In this regard, the document and its main table could be better structured to enable SBSTTA to assess the myriad of indicators and discuss the relevant strengths and weaknesses of each. It is essential to have consistent criteria against which to evaluate the qualities of the indicators that are presented in the draft monitoring framework. The draft INF document prepared by UNEP-WCMC

				is a useful tool in this regard, as it presents in its Annex various criteria against which this large set of indicators could be assessed. This type of analysis, as mentioned above, is critical to allow Parties to focus the list of indicators on the ones that are the most appropriate for a post-2020 global biodiversity framework. While cognizant of the fact that it will not be possible to populate every cell with information, as much detail as possible would be extremely helpful to allow for a comprehensive and consistent analysis of all indicators. We have taken this model and developed a variation of the table, incorporating some additional criteria, and simplifying others - see section 2 below. This type of assessment of possible indicators should be included in the main monitoring framework document. We also recommend that all of the indicators suggested during this peer review be included and evaluated in one table against the criteria as suggested below so that there can be systematic and transparent decision-making about what indicators may be best suited to measure progress on the elements of the post-2020 framework going forward. In our view it would therefore be premature to adopt or delete specific indicators until this review against criteria can be done. The indicators, if reviewed and prioritized in a systematic way, can help to define what and how we want to achieve and measure, rather than focusing only on definitions of terms in the targets and goals. 6. *Possible "Headline" Indicators:* One scenario which has been suggested by a number of Parties and observers is the adoption of a smaller set of "headline" indicators. These would be indicators where ideally the data is available, regularly updated, relevant at a global level and comparable amongst countries. This could include national data reported by Parties and aggregated to the global level, (similar to the World Database on Protected Areas) or data accrued at the global level that can be disaggregated to the national level (e.g. global Red List data or spatial data). Incidentally, it is not clear what is meant in the Inf doc in column 9 re: methodology available for national use vs column 11 on national data aggregated to form a global indicator. For national level indicators, it would be helpful to know how many countries are collecting the data. It would be ideal if these 'headline' indicators are or have been used for other processes, either the SDGs, IPBES assessments, GBO reports or other

				multilateral processes, and for the SDG indicators, for there to be information on whether they are Tier I, II or III (Tier I meaning that data are regularly produced by countries for at least 50 per cent of the countries). Individual Parties could monitor and report on other, additional indicators if they choose, and the CBD Secretariat and broader CBD community could also monitor and report on other indicators at a global level to be able to identify and highlight trends. This alternative approach deserves to be introduced in discussions on the post-2020 monitoring framework so as to enable analysis and discussion by Parties at SBSTTA-24. 7. *"Shared" Indicators:* It is appreciated that the draft framework uses and points to indicators that tie to the SDGs, and it would be helpful as well to clarify which ones have also been used before for the IPBES assessments and GBO publications. Indicators relevant to other international agreements (e.g. CITES, International Treaty on Plant Genetic Resources for Food and Agriculture, CMS, etc.) should also be identified and used whenever relevant to the goals and targets. 8. *Indicator Gaps:* Despite efforts to simplify the collection of indicators, there will undoubtedly be areas where some additional indicators are needed, or indicators that could be adjusted for improvement. Two important areas that have been consistently highlighted by many Parties, including Canada, are indicators related to Indigenous peoples and local communities (IPLCs) and gender equality. At CoP14, Parties welcomed advice to systematically collect, compile and communicate sex-disaggregated data, and to monitor the gender dimensions of biodiversity conservation. However, the draft document and the indicators it presents are not close to addressing this need. Further work is needed to integrate gender equality considerations into the post-2020 monitoring framework indicators. For example by including indicators that provide sex-disaggregated data whenever possible such as 1) Trends in ensuring that all men and women, in particular the poor and the vulnerable have ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance (SDGs 1.4) , 2) Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of

				tenure (SDGs 1.4.2), and 3) Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control (SDG 5.a.2). In a similar fashion, the CBD has recognized the important role of IPLCs in meeting the 3 objectives of the CBD. Discussions at WG8J-11, SBSTTA-23 and the OEWG-2 all touched on the need to integrate the role of IPLCs' throughout the Post-2020 Global Biodiversity Framework, in particular through its monitoring indicators. However, there are only a few mentions of IPLCs in the list of indicators, and numerous target areas directly related to IPLCs have indicator gaps. In this sense, further work is needed to integrate IPLC and customary use considerations into the post-2020 framework indicators. For example, indicators could be added that focus on assessing 1) IPLCs engaged in consultation and project development in relation to the access and use of traditional knowledge, customs and practices, 2) Number of NBSAPs that address the promotion of cultural and biodiversity values 3) Indigenous Protected and Conserved Areas and other Indigenous lands and territories under shared governance or/and IPLC governance schemes could be an additional monitoring element or included as a separate indicator under the other area-based conservation measures, 4)# of Parties that have identified key ecosystems that provide essential services such as the regulation of air quality, hazards and extreme events and quality and quantity of water, particularly for women, Indigenous peoples and local communities, and the poor and vulnerable, and 5) # of Parties that have established and started implementing plans for the restoration and safeguarding, if required, of key ecosystems that provide essential services such as the regulation of air quality, hazards and extreme events and quality and quantity of water for at least, including for women, Indigenous peoples and local communities, and the poor and vulnerable. 9. *National and Global Data Collection*: One of the key issues that arises in the INF document analysis is that of national and global data collection. One of the critical issues in monitoring the achievement of the Aichi Targets was low levels of national data reporting, and inconsistencies between national and global data sets. This issue needs to be discussed by Parties at SBSTTA-24, yet the draft of the main monitoring framework document does not discuss the various elements of this issue

				or present options for improvement. In fact, the draft document simply states "The indictors [SIC] in the tables only include those which are currently operational at the global level, have underlying data and an organisation committed to their periodic update." Notwithstanding these overarching comments, Canada's response to this peer review also provides comments for consideration regardless of which approach is ultimately taken. We would also like to make it clear that any of the comments (or lack thereof) on any of the indicators or elements related to updated goals and targets should not necessarily be interpreted as support by Canada for that goal or target.
0	0	0	0	Noting there is a conceptual framework (P2020 Theory of Change in zero draft), the monitoring framework would benefit from a coherent measurement framework (definitions, concepts, and methods). Since inconsistent definitions (e.g., for "forest" or "coastal") are used by each "custodian", there is a danger resulting indicators will be inconsistent and impossible to combine.
0	0	0	0	The Conservation of Arctic Flora and Fauna's (CAFF) Circumpolar Biodiversity Monitoring Programme (CBMP) is an international network of scientists, governments, Indigenous organizations and conservation groups working to harmonize and integrate efforts to monitor the Arctic's flora and fauna. The CBMP works to leverage monitoring activities of networks and nations and establish international linkages to global biodiversity initiatives. The CBMP has been endorsed by the Arctic Council and the official Arctic Biodiversity Observation Network of the Group on Earth Observations Biodiversity Observation Network (GEOBON), as well as the UN Convention on Biological Diversity. As such, CAFF's work on monitoring should be considered as an important data source when developing the Draft monitoring framework for the post-2020 global biodiversity framework.
0	0	0	0	Statistical offices use the System of Environmental-Economic Accounting (SEEA) for ecosystem accounting. The SEEA is consistent with respect to links to the economy and employs a standard definition of ecosystem types (IUCN GET) and ecosystem services.
0	0	0	0	The large number of indicators will be challenging for most countries to track. A tiered approach would help break implementation into stages according to priorities and feasibility. There are also many Monitoring Elements with no associated

				indicator (e.g., “Trends in regulation of coastal water quality” Table 1, Page 5, column B, Row 60) implying these are not yet regularly available globally.
0	0	0	0	Many of the proposed indicators in support of spatial planning and conservation related goals and targets are specific to the terrestrial environment. More work and research should be done to identify or develop marine related indicators.
0	0	0	0	The use of many existing composite indices will make analysis of overall trends and reasons for changes difficult. For example, aggregating these with others risks double counting and auto-correlation if they incorporate the same components. Ideally, the data contributing to the components of the indices would be included in the overall monitoring framework. This would generate many more data elements, but may reduce the number of higher-level indicators required. These could all be specified in a more coherent measurement framework.
0	0	0	0	It would also be important to consider whether there is a way to concurrently measure multiple types of ecosystems through one indicator (or fewer than that listed).
0	0	0	0	Although monitoring indicators is a fundamental element of adaptive ecosystem management, it is critical that it is embedded in a robust structure that includes feedback mechanisms between monitoring results, assumptions behind decisions and used to develop corrective actions when necessary.
0	0	0	0	A number of indicators that cannot provide trend data (data over time) are referenced in the draft monitoring framework (e.g. the Red List of Ecosystems, the Red List of Species) – these kinds of indicators provide a snapshot but trend data is more important to be able to monitor over time (e.g. the Red List Index of Ecosystems, the .
0	0	0	0	It needs to be clear whether the indicator being evaluated can actually provide the information needed for the goal / target theme (e.g. what does the indicator actually measure and does this fit the purpose of the need – e.g. species conservation). It also needs to be clear if the data for each indicator is actually available now (or needs more work) and whether the indicator will be funded in the future. In some cases, national data may be more accurate but there needs to be a balance and indicators that fit the intent of the goal / target theme, are robust (e.g. peer-reviewed, science-based) and can track data over a wide number of countries / globally over time should take precedence versus a search for

				'perfect' data for headline indicators, to be able to monitor progress of the post-2020 biodiversity framework.
1	2	C	1	One potential issue to consider with using % of "total land area" is some of the ecosystems could include non-forested ecosystems such as wetlands, grasslands, shrub steppe, and barrens. Some of these may have been forested before anthropogenic or natural disturbance, however many of these are natural vegetation types associated with specific biogeoclimatic conditions.
1	2	C	2	Tree cover loss can be a problematic indicator for trend in area of forest ecosystems, as described in State of the World's Forests (SOFO) 2020 Box 6. Moreover, it is not clear if the proposed indicator is gross tree cover loss or net. Gross tree cover loss provides a limited perspective on tree cover dynamics. Current global net tree cover loss assessment methods are biased for boreal forests because of difficulties detecting gradual tree cover gains characteristic of natural post-disturbance boreal forest succession (Guindon et al. 2018, https://doi.org/10.1002/ecs2.2094). Progress toward SFM (SDG 15.2.1) sub-indicator 1, "Forest area annual net change rate" may be a better indicator for Goal A1 if 15.1.1 alone is considered to be insufficient.
1	2	C	3	Canada understands that the Biodiversity Habitat Index measures the loss of species diversity so may be better suited to the species element. Indicators to measure ecosystem integrity may be better spatially-based (e.g. using mapping).
1	2	C	4	Canada understands that the Red List of Ecosystems is a science-based and rigorous index though it needs to be established how ready it is to be used as an indicator. Some challenges will be the potential lack of science to determine thresholds of ecosystem collapse and the lack of consensus for some ecosystem types for the natural range of variation. Some ecosystem types such as boreal rainforests do not seem to be part of the IUCN ecosystem typology. Another potential challenge is the baseline of 1750, which may present significant data gaps.
1	2	C	4	There needs to be more information on the two indicators for this monitoring element - are they complementary, do they measure the same thing, do they produce different data?
1	2	C	3,4	The goal in column A is extent of natural ecosystems. The indicators identified assess risk and quality of habitat and do not

				directly measure the extent and would be better suited under a different goal such as A2.
1	2	B,C	8-9	Clarification is requested on if sponges are included in the elements and indicators related to corals? Sponges are an important habitat and ecosystem that should be highlighted.
1	2	C	8-9	Clarification is requested on whether cold-water corals are covered under “live coral cover” and “global coral reef extent”.
1	2	D	10	It needs to be very clear which indicators provide trend data, over time, to assess progress, and which ones do not.
1	2	C	12	Cumulative human impacts on marine ecosystems does not seem to fit here for the goal of "increased extent of natural ecosystems". There is also no equivalent indicator given for the terrestrial environment. They are mainly about extent of the ecosystems. Suggest removing.
1	2	C	13	Given the difficulties of using remote sensing to accurately map wetlands and the temporal variations in wetlands the results may not be as accurate as needed for comparing every 3 years.
1	2	B	16	More definition of the types of trends in farmland biodiversity and sustainable agriculture is needed here. Notably, it appears this indicator is not actively in use, so more information on how it would be calculated is needed. Further, it is not clear how this indicator relates to connectivity.
1	2	C	16	Biodiversity International has proposed a number of agrobiodiversity indices: https://www.bioversityinternational.org/abd-index/. However, indicators for agricultural areas may be better suited under the goal / target addressing production systems (e.g. Goal B, Target 9).
1	3	C	17	It appears that the Species Habitat Index is in development. One concern is that it appears to rely heavily on GBIF, which contains many gaps in species distribution due to inadequate species inventories. This also applies to rows 35, 47 and 52.
1	3	C	19	Global Vegetation Health Products represents many indices, not all specifically linked directly to biodiversity. The specific indices should be indicated here.
1	3	B		Suggest to add indicator on Seagrass condition “Trends in fragmentation and quality of seagrasses”. While there is a specific monitoring element and indicator for seagrass (line 10) under A1, there is no corresponding monitoring element and indicator under

				A2 for monitoring its condition. Tracking condition of ecosystem services is critical to the development of comprehensive Ocean Accounts.
1	3	C	25	The Ocean Health Index includes biological, physical, economic, and social elements to provide a measurement of ocean health. This seems more comprehensive than just addressing “Trends in fragmentation and quality of other marine and coastal ecosystems” for the purpose of ecosystem integrity and connectivity.
1	3	C	26	Suggest specifying "marine ecosystems" or “marine habitat forming species” here so that the emphasis is on ecosystems of habitats that may be fragmented not any marine species. The IUCN Red List of Threatened Species used for marine species in general is more appropriate for monitoring trends in extinctions and conservation status.
1	3	B,C	29-30	Consider replacing “extinctions” by “status”. The disappearance of a species is not the only measurement that could demonstrate trends in mammalian species. Measurements of mammalian trends are different between livestock and wildlife. FAO uses different categories including: “not at risk”, “endangered”, “critical”, “extinct”, “unknown”, etc. Committee on the Status of Endangered Wildlife in Canada (COSEWIC) uses “endangered” and “threatened”. So, “extinction” is not the only category to measure the trends.
1	3	C	30	Regarding “The number of extinctions prevented by conservation actions”, we note that this can only be estimated and may be difficult to measure.
1	3	C	31	It needs to be clear how the reporting mechanism would work in this Goal potentially having the same indicator as the target. Also, in addition to the Red List Index, it could be relevant to list the Green List of Species though it needs to be established how ready this indicator is.
1	3	C	33	It needs to be clarified what this indicator can do / what kind of data it generates to be able to compare its suitability as an indicator against the Red List Index.
1	3	C	34	Living Planet Index (LPI) – re: “the representativeness and quality of the population data” https://royalsocietypublishing.org/doi/full/10.1098/rstb.2004.1584 - how should this be considered in the context as an indicator?

1	4	A, B, C	36, 38, 39	A genetic diversity baseline is lacking - especially for wild species. Strategy and methodology for global/large scale measurement of actual genetic diversity is also lacking. The indicator proposals made by Hogan et al 2020 should be considered. Note in Decision XIII/23, for Aichi T13, the specific indicator "**Level of implementation of global plan of actions on genetic resources for food and agriculture, identified for generic indicator"** (from CGRFA), to address general indicator "Trends in development and implementation of strategies for minimizing genetic erosion and safeguarding genetic diversity" might be a helpful process indicator for this area.
1	4	C	36-41	Indicators 36-41 measure preservation or conservation status of accessions, strains and species, which may not themselves be genetically diverse. None of these indicators (other than 40?) appear to address genetic diversity of marine species. Consideration should be given to 3 new indicators proposed by Hogan et al. 2020 (https://doi.org/10.1016/j.biocon.2020.108654) with closer relationship to the monitoring and maintenance of genetic diversity: **1. Number of populations/breeds within species with effective population size (Ne) above 500 versus those with Ne below 500;** **2. Proportion of populations maintained within species;** **3. Number of species and populations in which genetic diversity is monitored using DNA-based methods.** This approach represents a reasonably thorough and strong guide for genetic diversity planning going forward. These three new indicators should be used and understood together.
1	4	B	37	Typo: should read "plants" not plans. Also, in terms of cultivated plants and domesticated animals, the indicators may be more suited to Goal B and Target 9 focusing on production areas.
1	4	C	38	Although this is an SDG indicator, the proposal in Hogan et al. 2020 to modify this to "resilient, representative, and replicated" PGR would provide a stronger indicator for the maintenance of genetic diversity.
1	4	C	39	This is SDG Indicator 2.5.2.

				Breed diversity does not equate to a measurement of genetic diversity, as it does not account for within-breed diversity or for how closely breeds are related to each other.
1	4	C	40	This indicator measures species status, not genetic diversity. Red List Index could also be used for medicinal plants and crop wild relatives
1	4	B	42	Given that this component seems to focus only on PAs and OECMs, how does this reconcile with components 1 and 2 – are they focused on areas outside of PAs and OECMs? If the target focuses on this, should the same indicators also be in the goal? There seems to be overlap here, though if this is a different reporting timeframe (clarifying that this is a placeholder for 2030 information specifically as a goal) then this needs to be clear.
1	4	C	43	Coverage of other effective area-based conservation measures is a good potential indicator but will require a typology.
1	4	C	46	KBA identification processes have not taken place in the marine environment by many jurisdictions. The following indicator should include the underlined text “Protected Area Coverage of key biodiversity areas or Ecologically and Biologically Significant Areas” to reflect the fact that EBSAs are described under the CBD in the marine environment as areas with ecological or biological significance.
1	4	C	47	The Species Habitat Index measures trends in the terrestrial environment only, leaving a gap for the marine environment. It measures the changes in the suitable habitats of single species to provide aggregate estimates of potential population losses and extinction risk increases in a region or worldwide. This indicator may not be relevant for this goal component (protection of coastal ecosystem) and it may be best suited for goal component A4 “increase the population and health of species” (where it is already listed as an indicator).
1	4	C	49-50	Both indicators are the same; however, the baselines (column D) are different.
1	5	A,C	51 to 63	Goal B1 states "Nature’s regulating contributions including climate regulation, disaster prevention and other". However, none of the indicators look at green infrastructure, which is a major component for mitigating the effects of climate change. There is also no proposed indicator that would measure Carbon Sequestration. The role of biodiversity and intact ecosystems for

				carbon sequestration would be an important element to capture under this component.
1	5	C	51	Number of certified forest areas under sustainable management does not seem likely a good indicator of trends. Also, measuring number of certified forests could create perverse incentives but it could be changed to the proportion of certified forests instead.. . It would be helpful if other indicators could provide more comprehensive indication of trends beyond forests.
1	5	C	56	Number of certified forest areas under sustainable management with verified impacts on carbon sequestration/storage would provide an inadequate indication of trends in regulation of climate or progress toward Goal B. Alternatives should be considered. Global Core Set of Forest Related Indicators 3, "Net GHG emissions (source)/removals (sink) of forests, and carbon balance of harvested wood products", should be considered. UNFCCC could be serve as responsible institution. This indicator is available today; it is updated annually; methodology available for national use; national data are aggregated to form a global indicator…
1	5	C	58	'Number of certified forest areas under sustainable management with verified impacts on water quality' may provide an incomplete indication of trend in regulation of water. Global Core Set of Forest Related Indicators may offer superior alternatives, specifically GCS 11 "Forest area with a designated management objective to maintain and enhance its protective functions" and 16 "existence of national or subnational policies, strategies, legislations, regulations and institutions which explicitly encourage sustainable forest management".
1	5	B	60	This would be a good trend to monitor, however we cannot provide any specific possible indicators at this point. Measuring this trend could look at how the use of nature-based solutions could improve coastal water quality in some areas. Possibility this could align with indicators developed in support of actions under the UNFCCC.
1	5	B	61	The intent of this element (without an indicator) is not clear, particularly whether the intent is to build soil health, to decontaminate soils and sediments, or both. Clarification is needed.
1	5	C	62	The monitoring element "Trends in regulation of hazards and extreme events" and the associated indicator do not have a clear linkage to biodiversity. Neither reflects the objectives of the target

				wording (nature's contributions to…) and both fall outside the scope of the CBD. A better indicator would measure the contributions of key ecosystems that provide coastal and terrestrial flood protection as a disaster risk reduction service.
1	6	B	64-67	These monitoring elements would seek to measure the utilization of biodiversity with no regard to the sustainability of the utilization. Unsustainable increases in the utilization of biodiversity for food, materials, medicines, etc., could undermine progress towards the Convention's objectives. This creates a perverse incentive for reporting that could harm conservation and human health. As an example, this could lead to an indicator that includes the amount of energy supplied by hydroelectric dams or biofuels, which could fragment habitats and harm biodiversity depending on how they are developed and managed. Canada would recommend that the existing monitoring elements be updated to reference the sustainable use of biodiversity for the various provisions outlined.
1	6	C	64-71	It would be of particular importance for these monitoring elements to identify appropriate indicators that could provide disaggregated data by sex, age and ethnicity.
1	6	B	65	It is not clear if the intent of this element without indicators is to include formal agriculture, or whether it refers to foraging of wild foods, or both. Particularly, is the intent of "biodiversity" in this suggested indicator meant to include wild plants and animals?
1	6	C	71	Canada would recommend here the insertion of indicator from WCMC document: "**Number of certified forest areas under sustainable management with verified impacts on recreational services**". (FSC)
1	6	B	72-76	Drawing on the submission from the CBD Women Constituency: indicators proposed for monitoring elements related to genetic resources and benefit sharing (C1 and C2) where possible should use data that can be disaggregated by sex.
1	6	B,C	72-74	Drawing on the submission from the CBD Women Constituency: to be able to have access and to ensure equitable benefit sharing, the monitoring element should include "trends in ensuring that all men and women, in particular the poor and the vulnerable have ownership and control over land and other forms of property,

				inheritance, natural resources, appropriate new technology and financial services, including microfinance" (SDGs 1.4). Suggested indicators: **Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure (SDGs 1.4.2), including marine territories.** **Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control (SDG 5.a.2)**
1	6	B,C	72-73	Number of countries party to the International Treaty on Plant Genetic Resources and number of accessions shared through this treaty could be additional helpful indicators. A further indicator(s) could be drawn from the WHO Pandemic Influenza Preparedness Framework, on sharing of PIP biological materials (re. access to genetic resources)
1	6	B,C	72-73	Both indicators measure "trends in utilization to genetic resources by Parties to the Nagoya Protocol", as checkpoints are relevant to utilization, not access, and checkpoints are specifically a Protocol measure. These indicators (which should be moved to line 75, "Trends in utilization") will not be available to non-Parties to Nagoya, to Nagoya Parties that have not yet established checkpoints, or to CBD/Nagoya Parties that have not established access legislation (as Parties may elect not to regulate access).
1	6	B	74	"Benefits from access" appears in neither the CBD nor Nagoya Protocol, but recognizing that benefits do arise from access, this could be re-phrased as "sharing of benefits arising from access to and utilization of genetic resources".
1	6	C	72-76	In support of the submission from the CBD Women Constituency, Canada would like to note that, in order to capture the experiences of women with regards to access and equitable sharing, we would suggest the inclusion of the following SDG indicators : **Trends in ensuring that all men and women, in particular the poor and the vulnerable have ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance (SDGs 1.4)**

				Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure (SDGs 1.4.2), **Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control (SDG 5.a.2)**
1	6	C	74, 76	Access to free/open access data or information could provide a helpful indicator for (non-monetary) benefit-sharing from utilization of genetic resources.
1	6	C	75	It is not clear what indicator could be used – this might be a reviewing exercise based on literature searches, product marketing/approval activities etc., but capacity to do this in every CBD Party would be very limited, and the data would be particularly incomplete for non-Nagoya Parties.
1	6	B,C	76	This seems also to replicate the trend in line 74, just adding "monetary and non-monetary". There are no indicators or baseline, and it is not clear how this could be measured / accomplished given the highly diverse nature of benefit-sharing (especially non-monetary) and the confidential nature of monetary benefit-sharing involving the private sector. The UNEP/WCMC & BIP indicator "Number of countries that have received monetary or non-monetary benefits from granting access to genetic resources for their utilization" could be helpful, but would likely be highly arbitrary and underreported, dependent on detailed reporting by diverse national stakeholders and organizations.
1	6	A	77-85	A core element of the draft target is not being captured – the milestones clearly outline the importance of identifying the financial needs for implementation. This important step is not captured in the proposed components or elements columns. Would suggest this is an important element to track in order to access progress towards this target. Canada would recommend an indicator that measured trends in the use of the Biodiversity Finance Initiative (BIOFIN).
1	6	C	78	A key element not currently being captured with the proposed indicator is the amount of financing "mainstreamed" for biodiversity – budgetary amounts dedicated to biodiversity protection and conservation from all public agencies and

				departments. It is not an adequate representation to capture only revenue / financing from economic instruments.
1	6	B	79	An important element to consider when developing an indicator for this monitoring element will be the need for a clear baseline of private sector funding in order to allow for an indicator to measure existing trends.
1	7	C	83	This monitoring element repeats under Target 18 on Resource mobilization where the following indicator is being proposed: Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies (SDG indicator 17.7.1)
2	8	B	1	It would be useful to know if there is an indicator that could be used for all monitoring elements (e.g. measuring planning in land, marine, coastal, water ecosystems)? Would another option for an indicator be for countries to self-report area covered by government led spatial use plans?
2	8	C	1	This indicator does not make sense for land, as it focuses on marine areas and is a different kind of measurable unit. It may be relevant for marine spatial planning.
2	8	C	2	Neither of the presented indicators in this document seem suitable for measuring / tracking area covered by land use plans, or even number of land use plans. The UNEP-WCMC document as well does not list an appropriate alternative indicator, so either a new indicator needs to be found or the target wording needs adjusted. Indicator for SDG 14.2.1 is associated with the marine environment, not terrestrial. It may be appropriate here if the intent is attempting to connect land-use efforts that integrate marine and coastal considerations. This could also include a new indicator “number of countries using ecosystem-based approaches that link marine and terrestrial ecosystems”. Based on the metadata (link) this indicator can be used for both integrated coastal zone management and marine spatial planning, therefore it should be reflected in both Table 2, pg. 8, column C, row 3 and Table 2, pg. 8, column C, row 4
2	8	C	4	Possible indicators to use include “Number of countries using marine spatial planning” or “Percentage of EEZ under marine spatial planning”.
2	8	B	5	It is unclear why some of the monitoring elements for T1.1 (increased spatial planning) are trends in area under "integrated

				management", while the others are increase in plan area – why the mention of "integrated" in only some?
2	8	C	5	Is this the actual SDG indicator 6.5.1? How can "degree" of integrated water resource management be measured – e.g. what is the unit of measurement - number of plans? The unit of measurement should be the same for land, coast, marine and water. Also, more information is needed on the traits of the indicator – e.g. is 2017 the date when data for the indicator becomes available?
2	8	C	7	There could be a potential issue with using WRI / Global Forest Watch's data set (land cover) to report on land use change (trend data) for the indicator 'primary forest deforestation', as using (primary forest) land cover to equate to land use *change* (trend data) is problematic. There could be an additional issue with this indicator regarding the operational definition of 'primary forest'.
2	8	C	7	Primary forest deforestation is not available or suitable for use at global and national scales yet. There is a FAO-led process to address the issues with primary forest assessment, which are noted in the FRA 2020 main report, and in SOFO 2020 (Box 8). It is recommended that an indicator such as "area of naturally-regenerated forest loss" be considered instead for T1.2. This would provide indication not just of deforestation (conversion from naturally-regenerated forest, including primary forest, to non-forest) but also of conversion of naturally-regenerated forest to planted forest (including plantations). FAO could be approached re capacity to serve as responsible institution.
2	9	C	18	The Ocean Health Index includes biological, physical, economic, and social elements to provide a measurement of ocean health. This seems more comprehensive than just addressing "the extent and rate of change of marine and coastal ecosystems". Specific goal and sub-goal scores within the Index would be more helpful, such as the Habitat sub-goal of the Biodiversity goal.
2	9	C	21	Regarding agricultural lands, there is a need to define scale and scope of how natural land is to be defined/measured. For example, farm boundaries may encompass wetlands, woodlots, and so on. From the information in the indicator, it is not clear if these would be considered as natural land.
2	9	C	23	It is unclear if the Ecoregion Intactness Index is widely used/appropriate for marine ecosystems. This seems to be terrestrially focused.

2	9	C	23	Another potential challenge is whether the index can address naturally fragmented areas.
2	10	C	27	The Ocean Health Index includes biological, physical, economic, and social elements to provide a measurement of ocean health. Canada would suggest considering specific goals/components within the Ocean Health Index instead, to provide more specificity and clarity (e.g. Biodiversity, Coastal Protection, etc.)
2	10	B	29	Regarding agricultural lands, there is a need to define scale and scope of how natural land is to be defined/measured. For example, lands that fall within farm boundaries might include wetlands, woodlots, and so on. From the information in the indicator, it is not clear if these would be considered as natural land.
2	10	C	30	It does not appear as if the Bioclimatic Ecosystem Resilience Index (BERI) is applicable to the marine environment.
2	10	C	30	This is a tricky indicator as it has many complex assumptions.
2	10	C	30-34	It is not clear how some of these indicators measure connectivity of natural ecosystems.
2	10	C	31	It does not appear as if the Protected Connected “Protconn” is applicable to the marine environment.
2	10	D	35	It needs to be made clear that this is the UNEP-WCMC WDPA indicator. Are SDG indicators 14.5.1 and 15.4.1 truly different indicators or are they different ‘cuts’ of the WDPA? If the latter, the indicators in rows 36 and 37 should be removed for clarity. Also, is the dataset truly from 1819 to 2020? While historical information for the duration of the Aichi Targets and earlier is important for trend data, it is also important that this information will be collected regularly, going forward.
2	10	C	37	This indicator would be more appropriately associated with T2.2 “areas of particular importance for biodiversity are protected and conserved as priority”
2	11	C	38	Indigenous Protected and Conserved Areas and other Indigenous lands and territories under shared governance or/and IPLC governance schemes could be an additional monitoring element or included as a separate indicator under the other area-based conservation measures.
2	11	A	39	The general premise of protected areas is to provide protection where it is needed. This sub-target implies areas not of importance

				for biodiversity are being established under protected areas, which is being evaluated by T2.1. Canada requests clarification on if "particular importance" is described to identify why these areas are more important than others needing protection.
2	11	C	39	KBA identification processes have not taken place in the marine environment by many jurisdictions. There are multiple considerations involved in identifying sites for conservation measures. The following indicator should include the underlined text "Protected Area Coverage of key biodiversity areas or Ecologically and Biologically Significant Areas" to reflect the fact that EBSAs are described under the CBD in the marine environment as areas with ecological or biological significance.
2	11	C	39-42	Without the additional information that UNEP-WCMC provided (the additional columns), it is difficult to differentiate these indicators from one another – who administers them and their qualities. For example, the indicators in rows 39 to 42 seem to do the same thing, but there obviously are differences, and this information is needed to determine which would be more beneficial in measuring globally the amount of areas important for biodiversity that are covered by PAs / OECMs. There also needs to be consideration of what the best measure for determining areas important for biodiversity might be. Another option may be proportion of KBAs in favorable condition (a nuance being that KBAs may disappear if the triggering elements of biodiversity are lost).
2	11	C	40	This indicator is duplicated within this element, two rows below (row 42).
2	11	B	46	Measuring effectiveness will likely require an effectiveness framework under the CBD to be flexible to accommodate national approaches while remaining comparable. Consideration should also be given to non-ecological indicators for effectiveness, which would likely fall under the management effectiveness component.
2	11	C	47	Canada agrees that "trends in Protected area downgrading, downsizing and degazettement (PADDD)" is an indicator of effectiveness. It may be more suitable under the general calculation of how much is protected. Having this indicator here implies that removing protections is due to the fact that the site was not effective, but that may not be true.

2	12	B	48	If “Trends in proportion of protected areas and other effective area-based conservation measures under various governance regimes” is related to forests in general and not protected areas, this indicator would need to separate out PAs where certified regimes are being used vs forest areas with certified regimes not within PAs.
2	12	C	48	"Number of certified forest areas under sustainable management with verified impacts on biodiversity conservation" seems an inadequate indicator of trends in proportion of PAs and OECMs under various governance regimes. However a similar indicator appears for draft target 9 on sustainably managed ecosystems where it seems more suitable.
2	12	C	49	Protected Area Connectedness Index (PARC-Connectedness) appears to be a terrestrially focused indicator.
2	12	D	49	PARC-Connectedness has been used for the IPBES regional assessments, so it would be good to indicate this and potentially continue using this for future reporting, but more information needs to be provided on what it can do compared to Protconn and any others.
2	12	C	50	It does not appear as if the Protected Connected “Protconn” is applicable to the marine environment.
2	12	C	51	Not enough information is provided about whether the Protected Areas Management Effectiveness indicator measures management or conservation effectiveness and other qualities. T2.6 and T2.2 are complementary. It would be useful to list other options here as well, including the IUCN Green List and PAME/WDPA (for the latter - “% of PAs / OECMs with documented ecological / biodiversity objectives and those meeting these objectives in their planning) so that they can be evaluated against the criteria.
2	12	B	52	Canada suggests that if this target component remains, it could be further elaborated based on the *Voluntary Guidance on the Integration of Protected Areas and Other Effective Area-Based Conservation Measures Into Wider Land-and Seascapes and Mainstreaming Across Sectors to Contribute, Inter Alia, to the Sustainable Development* as per CBD Decision 14/8. The guidance suggests landscape and seascape plans and frameworks (e.g. marine spatial plan, integrated management plan, etc.) be reviewed and adapted to improve connectivity and complementarity and reduce fragmentation and impacts.

2	12	C	52	This component and monitoring element are vague in what they are trying to measure, and SAGE, proposed as the only indicator in the UNEP-WCMC inf doc, does not really fit the intent. SAGE also seems to be more of a tool than an indicator, though may be relevant for countries to use for the ”effectiveness” element of the Target.
2	12	B	53	Trends in ex-situ conservation measures seems to be oriented to measuring conservation actions while the Red List Index measures the conservation status (threat of extinction) of species increasing or decreasing over time. Thus the Red List Index does not seem to fit against this monitoring element, unless it is being used as a proxy for the success of conservation actions, but it may need to be listed under its own monitoring element (trend in species status over time). It also needs to be made clear where there are different indicators and where they are the same – e.g. we understand that % of threatened species improving in status is also derived from the Red List Index.
2	12	C	54	It is not clear if the proposed indicator includes all “species” or specific taxonomic groups (such as mammals and birds). Consideration should be given to providing additional detail.
2	12	C		Would another option for progress on species be tracking the number of species assessments at the national level, and species conservation plans at the national / global level?
2	12	C	55	There is no indicator listed here or in the UNEP-WCMC indicator document, so it may not be possible to include this monitoring element and aspect of the target at this time.
2	12	C	56	The indicators (SDG indicators 15.7.1 and 15.c.1) are not appropriate to measure harvest, and illicit trafficking would be at a national level. Effectively, the harvest could be legal and the trade illegal and vice versa. The numbers of some harvested vs wildlife poached is very likely available.
2	13	A,C	56–66	Noting the paucity and overlap of the indicators and the mirroring of the monitoring elements, Canada suggests consideration could be given to merging the components. None of the few indicators measure the contribution to human health. The human health angle could be included (if still not measured) by adjusting target component language to ”legal, sustainable and safe for biodiversity and as a result, benefits human health".

2	13	B	61	Canada would recommend adding “Trends in exportation / importation of germplasm”.
2	13	B	60 and 63	Regarding the monitoring element “Trends in measures ensuring safe harvesting operations”, Canada believes that measuring safe harvesting operations (such as manipulation of firearms or anything else that would be related to human safety health of harvesting operations) is out of scope of the CBD convention. This comment would also apply similarly to the element: “Trends in measures ensuring safety of trade operations”. We note that the word safe is new language added to the draft target.
2	13	C	61-63	CITES indicators could be used here.
2	14	B	66	If the component T4.3 is kept, “Trends in measures ensuring safe use of biodiversity” should be clarified to understand what would be measured and how it would contribute to the target.
2	14	C	69	More information is needed on this indicator (which reads like a monitoring element). It would be difficult or impossible to measure the trends in the numbers of new introductions, since the current rate of introductions or number of aquatic invasive species is unknown. We can be unaware of introductions that arrive but are not successful. We may not be able to link detections with an introduction time frame (e.g., timing of discovery of a newly detected species may have been a time lag from its actual date of arrival). Further, “introduction” needs to be clearly defined. “Introduction” is distinguished from “established”, the latter generally defined as a self-sustaining population. Although preventing introductions is an important first line of defense, not all introduced species pose equally significant threats and need to be managed – rather it is important to prioritize those species that have a good chance of becoming established and having harmful impact.
2	14	B,C	70 – 72	Target T5.2’s wording makes sense, but the proposed monitoring elements make their measure and monitoring unclear. Any numerical indicators for these three monitoring elements would be difficult to interpret. Increases in identification or monitoring of IAS could indicate an increase in efficiency/effectiveness (e.g. increased investment/efforts in IAS research) or an increase in IAS invasions. Opposite interpretations of the same trends should be minimized or clarified. Information on countries “adequately resourcing the prevention or control of IAS” (line 75) and identification and monitoring could be a clearer indicator as it represents efforts and capacity rather than endpoint data.

				There are no listed indicators for rows 70-72. The UNEP-WCMC / BIP inf doc contains 3 possible indicators, none of which yet are available / functional. It would be useful to know in addition to when these indicators will be available (between 2020 – 2021) and whether they will be operationalized / funded long term, for these and all other similar indicators listed that are in progress.
2	14	B	71	The term "identification" needs to be defined, since it implies taxonomic identification vs detection which is the exercise of "finding" new species / populations
2	14	B	72	The term "Monitoring" needs to be well defined to determine whether it also includes eDNA monitoring. Monitoring (scientific process of understanding the population) can be defined differently from early detection surveillance (occurrence: presence/absence)
2	15	B	76	Developing a clear definition of "management measures" is needed to appropriately distinguish them from "control measures".
2	15	C	77	The Red List can indicate species groups whose risk of extinction is increasing or decreasing due to invasive species, but it does not measure the elimination or reduction of IAS as the driver itself, as the wording of component A is written, so the wording of this may need to be more finely nuanced.
2	15	A,C	78-80	It is concerning that there are no listed potential indicators for this target component, and only one listed in the UNEP-WCMC / BIP inf doc (Proportion of Key Biodiversity Areas threatened by IAS), which is not functional yet. There needs to be some clarification of what would be needed for this one indicator to be functional, and when and if there are any other alternatives. If not, this component should be reconsidered for the time being as a part of the monitoring framework.
2	15	B	78-80	While the use of the wording "trends in elimination" was probably chosen to cover "eradication, control or management", specific monitoring elements pertaining to either eradication, control or management should be used, as it otherwise makes the selection of indicators for these monitoring elements difficult.
2	15	C	81-96	The indicator noted for plastics will need further elaboration. The current indicator is a high level statement that does not acknowledge the different impacts that the various types of plastics can cause, such as land-based into microplastics or the

				abandoned, lost or otherwise discarded fishing gear (ALDFG) risk to marine mammals, harvestable stocks, etc.
2	15	C	81	It is not clear why plastic debris density is an indicator for N pollution.
2	16	C	89	It is not clear why coastal eutrophication is an indicator for plastic pollution.
2	16	B	91-94	Potential indicators for rows 91-94 are missing in both this document and the UNEP-WCMC / BIP inf. doc. The target wording ("pollution from all sources") may need to be refined until a later time when some or all of these elements can be measured, while keeping in mind how this might be accomplished in the future if this is important. Is organic waste not covered to some degree by nitrogen / phosphorous, for which data exists?
2	16	C	93	Canada requests clarification on whether this monitoring element also includes underwater noise.
2	16	B	97	More clarity is needed as to which ecosystems would be evaluated for carbon stocks, as well as how C would be evaluated.
2	16	C	97	"**Number of countries with national instruments on REDD plus schemes**" could be a potential indicator for measuring carbon stocks in developing countries, noting that this would only cover Developing Countries and therefore entail a gap in reporting from other Parties.
2	16-17	B	99-100	It is unclear how indicators contribute to measuring biodiversity's contributions to disaster risk reduction. Consideration should be given as to whether this monitoring element fits within the scope of the CBD.
2	17	C	101	This indicator only captures information from Least Developed Countries and SIDS, which would cause a gap in reporting.
2	17	B	101-102	Would an indicator on green infrastructure be appropriate here? Could this include the number or dollar figure of green infrastructure projects?
2	18	B	105	Would there be any indicators that could be considered regarding the certification or confirmation of sustainable practices for aquaculture? We note that under production and consumption there is no indicator in this document for aquaculture, nor in the UNEP-WCMC / BIP information document.

2	18	C	108	It may not be appropriate to include catch from MSC fisheries as an indicator. MSC is one of many ways we have of seeing what is sustainable or not, but it is very specific, market-focused, and inaccessible to many fisheries in developing countries because of the cost of certification. In a context with a focus on equitable distribution of benefits, there may be challenges in using MSC as an indicator. A more helpful indicator may be the FAO's biennial summary of which fisheries are overfished, underfished, etc.
2	19	C	110-111	There is no mention of endangered or threatened species in the monitoring element. For bycatch, many taxa beyond seabirds can be adversely impacted and therefore we suggest to broaden the focus to include other vulnerable taxa.
2	19	B	114 – 116	Should this read fauna and flora? Currently it only specifies fauna (but component and indicators imply plant and animal resources).
2	19	C	114	If the component T8.2 targets wild species, this indicator is inappropriate, as the animal resources measured are livestock and poultry, and the plants are crop species).
2	19	C	116	'Volume of production per labour unit by classes of farming/ pastoral/ forestry enterprise size (SDG indicator 2.3.1)' - unclear how this indicator aligns with T8.2.
2	20	C	119	What is the definition of "conservation agriculture" and how does this indicator differ from the indicator in line 118 for "productive and sustainable agriculture"?
2	20	B	120	This monitoring element should specify soil quality in agricultural and other managed ecosystems. Indicators could include both biotic (biodiversity) and abiotic (carbon, nitrogen) elements. Previous indicators on pollution (excess nitrogen, phosphorus, biocides) could feed into this target as well. Further, FAO does monitor some soil health parameters: http://www.fao.org/soils-portal/soil-degradation-restoration/global-soil-health-indicators-and-assessment/en/ and http://www.fao.org/land-water/databases-and-software/gladis/en/.
2	20	C	121	Although this is a very important indicator that should be used in the framework, it is not clear how it could function here as the Red List Index is for all pollinators, not just those relating to agricultural areas and, beyond that, areas that are managed in a sustainable way.

2	20	C	122-123	Neither indicator measures genetic diversity; they are rough proxies. The Red List Index of wild relatives could be considered here.
2	20	C	125	Progress towards sustainable forest management - SDG 15.2.1 is actually comprised of 5 sub-indicators. Recommend that each be listed individually for clarity. For example, doing so will make it clear that one of the 5 sub-indicators involved here coincides with the indicator in Table 3, Row 11.
2	21	A,C	128	This indicator measures a specific outcome but not how/if NBS or ecosystem approaches contribute to that given outcome. Both the monitoring element and indicator do not adequately reflect the objectives of the target wording and fall outside the scope of the CBD.
2	21	B	129-131	Suggest creating new indicators such as: **# of Parties that have identified key ecosystems that provide essential services such as the regulation of air quality, hazards and extreme events and quality and quantity of water, particularly for women, Indigenous peoples and local communities, and the poor and vulnerable.** **# of Parties that have established and started implementing plans for the restoration and safeguarding, if required, of key ecosystems that provide essential services such as the regulation of air quality, hazards and extreme events and quality and quantity of water for at least, including for women, Indigenous peoples and local communities, and the poor and vulnerable.**
2	22	B	133	This will need some clarification (what species or groups/categories of species?) for it to be measurable.
2	22	B	134-139	No baseline or proposed indicators, and health outcomes directly attributable to these different ecosystems may not exist. What would constitute a "contribution" from each ecosystem?
2	22	C	135	It is not clear how this SDG indicator relates to this monitoring element.
2	22	B	140	A WHO Pandemic Influenza Preparedness Framework indicator could be used to measure access to PIP biological materials. The PIP Framework could also provide a benefit-sharing indicator on access to vaccines and diagnostics.

2	22	C	140	It would be clearer to refer to accessions transferred, or accessions received. Each transfer could involve multiple accessions.
2	22	C	141	This is likely only applicable to Parties that choose to regulate access, a subset of CBD and Nagoya Parties.
2	23	C	142	Likely to be Nagoya Parties only.
2	23	C	143-144	Two general, pragmatic and constructive indicators that could capture information from non-Nagoya Parties too – though would likely apply only to subset of CBD and Nagoya Parties.
2	23	C	145	As phrased, more relevant to benefit-sharing than access. As this is already an SDG indicator it is presumably not adjustable – but adding "to clarify access regime and to ensure fair and equitable sharing of benefits" would capture those countries that have decided not to regulate access.
2	24	A,B,C	146	"Benefits from the access" appears in neither the CBD nor Nagoya Protocol, but recognizing that some benefits do arise from access, the element could be re-phrased as "Trends in sharing of benefits arising from access to and utilization of genetic resources". A particularly useful indicator for sharing of (non-monetary) benefits from utilization could measure access to free/open-access data and information, using information from INSDC, GISAID and other major international open access databases.
2	24	C	147-148	Drawing on the submission from the CBD Women Constituency: the indicators should measure whether these frameworks are gender-responsive or not.
2	24	B,C	149	While Canada welcomes the link to conservation and sustainable use, we recognize there is no baseline and these data are not currently collected (or collectable, in the case of monetary benefits described in confidential agreements), and in many cases this information may not reach ABS or Nagoya NFPs, CNAs or checkpoints at all. However, finding such an indicator is important. Drawing on the submission from the CBD Women Constituency: Should such an indicator be found, it should ideally measure how women, girls and TK holders participate in the distribution of benefits.
2	24	B	150-151	It is unclear how such (commercial and non-commercial) use and (monetary and non-monetary) benefits could be measured.

				Drawing on the submission from the CBD Women Constituency: monitoring element and indicators could also recognize and include work done on biocultural community protocols, used for protection of TK and ensuring access and equitable benefit-sharing for all relevant stakeholders.
2	27	B	162-179	It would be useful to identify key sectors for reduction of negative impacts on biodiversity. Having a sector-by-sector approach to identifying monitoring elements could help avoid gaps in key sectors, and Engagement with specific sectors would help facilitate monitoring and reporting at the national level. Many of the monitoring elements have proposed indicators that capture only one sector. For instance, “trends in certified supply chains” (line 177) only has an indicator that captures Forestry sector while the ”trends in a proportion of supply chains which are legal and sustainable” only has an indicator that captures the Fisheries sector.
2	27	B	162	It is unclear what is meant by reaching or surpassing “trends in ecological limits”.
2	27	C	162	Ecological Footprint is not broadly accepted and therefore may not be an effective indicator. It may be a useful communication tool instead.
2	28	B	167	This monitoring element could overlap significantly with the indicators in target 9 regarding sustainable production in agriculture, aquaculture and forestry. Greater definition of the sectors to which these production trends and practices refer is needed.
2	30	C	179	It may not be appropriate to include catch from MSC fisheries as an indicator. MSC is one of many ways we have of seeing what is sustainable or not, but it is very specific, market-focused, and inaccessible to many fisheries in developing countries because of the cost of certification. In a context with a focus on equitable distribution of benefits, there may be challenges in using MSC as an indicator. A more helpful indicator may be the FAO’s biennial summary of which fisheries are overfished, underfished, etc.
2	31	D	193	No indicators have been identified either in this document or in the UNEP-WCMC / BIP inf. doc, so can this be measured? Can industry / the private sector help with measuring this, and with other similar kinds of indicators?

2	32	B	194-196	What are “the necessary” measures, and who decides? “Functional” would be clearer and more to the point. (Note that the CP draft strategic plan’s goal A.1 is “Parties have in place functional national biosafety networks”)
2	32-33	B,C	194-204	“Biotechnology” is overly broad. As the target relates to Article 8g of CBD and Article 16 of the Cartagena Protocol (on risk management), the monitoring elements should be restricted to living modified organisms. This would align with the indicators, which focus on biosafety measures, detection and identification, and implementation of the Protocol. It is likely that the data will be much more consistent and globally and nationally available for measures on living modified organisms than for any other “product of biotechnology”.
2	32	C	198	This indicator should be revised in a way that also promotes and encourages regulatory cooperation, regulatory collaboration, joint reviews and recognition of other jurisdictions’ risk assessments, where appropriate, to reduce the burden on individual economies, reduce redundancies, and allow scarce government resources to be employed more effectively. Proposed revision: “**Percentage of Parties that carry out or use scientifically sound risk assessments to support biosafety decision-making**”.
2	33	A,B	203-204	This component and monitoring element (and suggested monitoring indicator 203), drawn from CBD Art 14.2, applies well beyond LMOs and biotech, so should be placed elsewhere if included.
2	33	C	203	This indicator seems applicable only to Parties to the Nagoya-Kuala Lumpur Supplementary Protocol to the CP. "Liability and redress” would be more accurate and appropriate in that context. “**Percentage of CP parties ratifying/acceding to the NKSP**” could be an additional (and SMART) process indicator.
2	33	A	208-210	The target component wording is “reforming incentives that are most harmful for biodiversity” but the monitoring element and indicators lose that wording, focusing only on agricultural and fossil-fuel harmful subsidies. There is a gap in terms of capturing the most harmful subsidies for biodiversity or a judgment is being made that the most harmful subsidies are those from the agricultural and fossil fuel sectors.

				Proposed indicators could include: **Trends in # of Parties that have undertaken a process for the identification and measurement of incentives that negatively impact biodiversity, including harmful subsidies.** **Trends in # of Parties that have developed action plans for phasing-out or reforming negative incentives, including harmful subsidies.**
2	35	C	211	The proposed indicator measures 4 different elements. Element (d) "Been provided with the necessary funding and capacity building to undertake the above activities" should be removed as it does not pertain to T.18.1 component that is meant to assess funding needs.
2	35	C	213	It is unclear how this indicator relates to "Trends in the mobilization financial resources from public international financial flows", for the purpose of implementing the framework
2	35	C	214	While capacity building is an important element to resource mobilization for the implementation of the framework, it is unclear how looking at the total value of financial and technical assistance provided is a relevant representation of resources contributed towards the implementation of the framework.
2	35	C	215	This indicator only focuses on GEF funding allocated towards the biodiversity focal area, but biodiversity co-benefits can also be captured through projects in other GEF focal areas, especially climate change, land degradation and international waters.
2	36	C	219-221	The WCMC document has many possible indicators that would be relevant for capturing increases in financial resources from domestic sources, including: **Government expenditure on biodiversity protection (OECD)** **Revenue from biodiversity related economic instruments** **Business expenditure on biodiversity protection (OECD)** **Biodiversity related philanthropic funding (OECD)**
2	36	C	224	This line captures only the funding going to support tech transfer for Developing Countries. There is a gap here in terms of capturing the information from all Parties of the Convention.
2	36	C	226	In addition to tracking the progress of GBIF, there have been several other attempts to facilitate the generation of biodiversity-

				related knowledge and to bring together knowledge holders, e.g. the Global Taxonomy Initiative (GTI), the Biodiversity Observation Network (GEOBON), the Conservation Evidence project of Cambridge University, or the Biodiversity and Ecosystem Services Network (BES-Net.). Tracking progress against these initiatives would also help track progress towards this target.
2	36	B	226	In support of the suggestion made by UN Women in their submission, Canada would also like to support the inclusion of a monitoring element that relates to the trends in the availability of gender-biodiversity data, as this type of data is currently lacking to monitor progress towards the gender-biodiversity domain.
2	38	C	236	Some important elements not yet being captured would be the numbers of scientific publications on biodiversity as well as a general assessment of research funding being provided for biodiversity research.
2	38	C	238	Additional indicators related to availability of Traditional Knowledge to decision makers. As such additional indicators focusing on assessing 1) IPLCs are engaged in consultation and project development in relation to the access and use of traditional knowledge, customs and practices, and 2) Number of NBSAPs that address the promotion of cultural and biodiversity values.
2	38	B	236-238	Based on experience from Aichi targets related to knowledge, we know that data is lacking on many aspects of women's and men's roles in relation to biodiversity conservation and sustainable use of natural resources. Greater use of sex-disaggregated data and gender-responsive indicators is important for achieving the objectives of both biodiversity management and gender equality. In order to identify and address the various ways in which gender differences and inequalities influence biodiversity, it is critical to collect sex-disaggregated data on biodiversity use, access, control and distribution of benefits, including quantitative and qualitative information.
2	38	C	239	Possible additional indicators could look at numbers of community-based monitoring systems initiated and implemented by IPLCs as well as the number of NBSAPs that incorporate IPLC knowledge as a cross-cutting theme.

2	40	C	246	While not a perfect representation of rights to resources, the framework could consider SDG indicators: **5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex and (b) share of women among owners or rights-bearers of agricultural land , by type and tenure.** **5.a.2 proportion of countries where the legal framework guarantees women's equal rights to land ownership and/or land control.**