



Mr. Basile van Havre  
CBD National Focal Point  
Director General, Biodiversity Policy and Partnerships, Canadian Wildlife Service  
Environment and Climate Change Canada  
351 St-Joseph Blvd., 16th Floor  
Gatineau, QC, KIA OH3

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

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Dear Ms. Maruma Mrema,

In response to notification 2019-108, please find attached Canada's comments on the document "Indicators for global and national biodiversity targets – Experience and indicator resources for development of the post-2020 global biodiversity framework".

In addition, a Canadian submission on possible targets, indicators and baselines for the post-2020 global biodiversity framework is attached to this letter for the co-chairs of the Open-Ended Working Group's consideration.

We look forward to further discussing these ideas at the second meeting of the Open-Ended Working Group as well as at the Twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice.

Basile van Havre  
CBD National Focal Point

**Basile van Havre**  
Director General for the Biodiversity Policy and  
Partnerships Directorate  
Canadian Wildlife Service  
Environment and Climate Change Canada  
351 St-Joseph  
Gatineau, QC  
K1A 0H3  
Canada  
Telephone +1 819 938 3935

**Basile van Havre**  
Directeur Général des politiques et des partenariats  
sur la biodiversité  
Service Canadien de la Faune  
Environnement et Changement Climatique Canada  
351 St-Joseph  
Gatineau, QC  
K1A 0H3  
Canada  
Téléphone +1 819 938 3935



## **CANADIAN SUBMISSION IN RESPONSE TO CBD NOTIFICATION 2019-108**

*Submission of views on possible targets, indicators and baselines related to the drivers of biodiversity loss as well as on species conservation and the mainstreaming of biodiversity across sectors, for the Post-2020 Global Biodiversity Framework and peer review of a document on indicators*

### **A. POSSIBLE TARGETS**

Notification 2019-108 requested the Executive Secretary to invite written submissions from Parties and others on views on possible targets, indicators and baselines related to the drivers of biodiversity loss as well as on species conservation and the mainstreaming of biodiversity across sectors in relation to the development of the post-2020 global biodiversity framework. The following section provides Canada's initial views on three key areas not addressed through a Post-2020 Thematic Consultation (i.e., invasive alien species; pollution; and climate change), as well as on the area of "species diversity". Canada will present further views on these and other areas in the context of upcoming discussions at OEWG-2, SBSSTA-24, and SBI-3.

#### **1. Invasive Alien Species (IAS)**

##### a) Evidence Base:

How to address invasive alien species as a direct driver of biodiversity loss should be informed first and foremost by the science and evidence base available. A review of GBO-4 and its subsequent follow-up information, the IPBES Global Assessment, the CBD Secretariat's updated scientific assessment (2018) indicates that:

- While there has been significant efforts made in the last decade, progress towards Aichi Target 9 remains insufficient to be achieved by 2020. The global impact of invasive alien species on biodiversity is getting progressively worse and is expected to be further induced by climate change and increasing movement of people and goods. This makes it a critical area to address under the post-2020 global biodiversity framework.
- The number of invasive alien species doubled over 50 years. Cumulative records of alien species have increased by 40 per cent since 1980, associated with increased trade and human population dynamics and trends. The rate of introduction of new invasive alien species seems higher than ever before and shows no signs of slowing.
- Although there has been success in eradication programmes for invasive vertebrates on islands, in some island countries, invasive alien species still have a significant impact on biodiversity, with introduced species being a key driver of extinctions.
- Both airborne and seaborne transportation of goods and people has risen dramatically, causing both increased pollution and a significant rise in invasive species.
- Aquaculture also contributes to coastal habitat destruction via both waste disposal (i.e., nutrients, feces, antibiotics) and the introduction of alien invasive species and pathogens.
- The cumulative number of alien species that have been recorded is ~30 times greater within high-income than within low-income countries, due in part to trade and population but also to detection capacities.
- Major drivers of invasions are expansions of trade networks, higher human mobility, continuous habitat degradation, and climate change.



b) What is needed in a post-2020 target on invasive alien species and biodiversity?

- Aichi Target 9 remains relevant as invasive alien species remains one of the five direct drivers of biodiversity loss.
- Having more effective border control measures and stronger international cooperation, coordination and sharing of relevant information.
- Identifying the mechanism related to the establishment and spread of IAS once introduced.
- Addressing emerging pathways of introductions such as via e-commerce and potential impacts of climate change.
- Enhancing awareness, education and promoting behavioral change throughout society, including exploring ways to have stronger recognition on how Indigenous Peoples and Local Communities could play a larger role in the management and impacts of invasive alien species on their culture.
- Increasing focus on priority species, pathways of introductions but also at vulnerable sites, including the development of risk-based prioritization tools.

c) Towards a possible post-2020 target on invasive alien species and biodiversity:

As there has been general consensus by Parties that Aichi Target 9 is still relevant, three possible options for a post-2020 invasive alien species target could include:

- A) Keep Aichi Target 9 as is: *By 2030, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.*
- B) Inspired by the SDG: *“By 2030, prevent the introduction and establishment, significantly reduce the impact of invasive alien species on land and water ecosystems, and control or eradicate the priority species.”*
- C) By 2030, priority invasive species and known pathways are managed to prevent the introduction of new species and the spread of established species and minimize their impact (especially in priority vulnerable places).

Despite being quite specific, without any reference to a quantifiable component, progress on Target 9 can be difficult to assess, all four elements of Aichi Target 9 are not quantifiable. This challenge could be resolved by using some specific indicators to measure progress.

New indicators could also be useful in making this a post-2020 invasive alien species target more specific and measurable. For example, possible new indicators could include:

- Trends in rate of interceptions at the border as a supporting indicator for the rate of introductions and therefore the effectiveness of boarder control measures.
- Trends in investments towards prevention, eradication and control of IAS as an additional supporting indicator for policy responses.
- An indicator that includes the consideration of climate change in the potential introduction/spread of invasive alien species.



## 2. Pollution and Biodiversity:

### a) Evidence Base:

How to address pollution as a direct driver of biodiversity loss should be informed first and foremost by the science and evidence base available. A review of GBO-4 and its subsequent follow-up information, the IPBES Global Assessment, GEO-6, and the CBD Secretariat's updated scientific assessment (2018) indicates that:

- Progress is not being made on this target, and that, in fact, the global impact of pollution on biodiversity is getting progressively worse, making this a critical area to address under the post-2020 global biodiversity framework. This threat is global in nature.
- Key pollutants include, in likely order of importance, nitrogen, phosphorus, organic matter (sewage, sludge, etc.), plastics and pesticides. Other pollutants may be regionally or nationally important, such as heavy metals, and PCBs.
- Plastic pollution is growing in the marine ecosystems, and recent estimates are that between 4.8-12.7 million tonnes of plastic waste are entering the oceans every year, between 1.15-2.41 million tonnes carried by rivers.
- Focus has been on nitrogen and phosphorus, but other pollutants of continuing or growing concern include plastics, in particular their impacts on marine ecosystems, heavy metals, endocrine disrupters and pesticides, which have been implicated by some studies in damage to pollinating insect and bird populations.

### b) What is needed in a post-2020 target on pollution and biodiversity?

- Aichi Target 8 remains relevant as pollution remains one of the five direct drivers of biodiversity loss.
- Progress assessed under this target has focused largely on pollution from excess nutrients (nitrogen and phosphorus). A post-2020 target, particularly its indicators, should take a broader approach to include other globally-important pollutants such as organic matter, plastics and pesticides.
- A Post-2020 pollution target and/or its indicator(s) need to be much more specific for them to be meaningful. Using general terms such as “pollutants” and “detrimental to biodiversity” without defining these, makes it extremely difficult to assess progress.
- These pollutants need to be systematically assessed and tracked, and their impact on biodiversity better understood. There is a lack of baseline data, and a poor understanding on what levels of pollutants are “detrimental to ecosystem function and biodiversity”. This complicates Parties’ ability to develop a meaningful target on pollution.
- On this note, sixteen specific Aichi Target 8 indicators have been recognized by the CBD, of which nine measure “trends in pollutants”, one measures “trends in extinction risk and populations driven by pollution”, one measures “trends in ecosystems affected by pollution”, and five measure “trends in nutrient levels” (CBD/COP/13/28). All of these sixteen indicators are available. In their fifth National Reports, Parties reported most commonly on indicators related to nitrogen and phosphorus to assess progress toward Aichi Target 8. However, these indicators are not always comparable due to different methodologies and because some refer to specific but varying ecosystems. Some Parties have used indicators in their national reports that are proxies such as the import/use of fertilizers, pesticides and insecticides, the amount of untreated wastewater or the amount of waste material



generated. However, while these indicators are relevant to this Target, they do not necessarily indicate if levels of nutrients or other pollutants are at or above levels which are detrimental to biodiversity. (CBD/SBSTTA/20/INF/34). Efforts should be made to adopt a more limited number of core indicators that are used by all countries and/or can be assessed globally, rather than adopting numerous indicators that are harder to track and report on.

- There is a variation on an indicator under the Red List Index that could function as the official global indicator to measure progress on this target. Work would be needed to better understand what this indicator is and is not measuring.
- A post-2020 target on pollution could also allow for specific regions or countries to include pollutants that are regionally or nationally important vis-à-vis biodiversity loss.
- Several potential synergies exist with other international processes that address pollution including the UN SDGs, and the Stockholm, Rotterdam, Basel and Minamata Conventions.

c) Towards a possible post-2020 target on pollution and biodiversity:

With poor baseline data, and a lack of consistent data from all Parties, one possible approach could be to focus on a post-2020 pollution target that focuses on incremental actions that Parties can take. For example:

“By 2030, Parties have identified and assessed priority pollutants affecting biodiversity and ecosystems and have developed and started to implement pollution reduction strategies, to bring to levels that are not detrimental to ecosystem function and biodiversity.”

However, this wording continues to contain concepts that are undefined and, therefore, hard to assess, such as “not detrimental to ecosystem functions and biodiversity”. This challenge could be resolved by using some specific indicators to measure progress.

Milestones could also be useful in making this a post-2020 pollution target more specific and measurable. For example, key milestones could include:

- By 2022, Parties have identified priority pollutants affecting their biodiversity and ecosystems.
- By 2024, Parties have developed and implemented pollution reduction strategies (by sector or other approaches) for priority pollutants.
- By 2025, Parties have put in place effective monitoring and surveillance systems for priority pollutants.
- By 202x, Parties have established non-detrimental levels of pollutants for biodiversity and ecosystems and have developed guidelines.
- By 2030, Parties have established real total reductions of major priority pollutants

### 3. Climate Change and Biodiversity

a) Evidence Base and Context:

Climate change and biodiversity loss are two of the most critical challenges currently facing the world. It is now widely accepted that these two issues are intrinsically interconnected and need



to be addressed in tandem. The recent Global Assessment from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) clearly identifies that climate change is one of the top five direct drivers of biodiversity loss globally;<sup>1</sup> and that it is anticipated to become the leading cause of biodiversity loss by the end of this century. Climate change also exacerbates other drivers of biodiversity loss.<sup>2</sup> Addressing climate change is therefore key to halting the loss of biodiversity and reversing the trend of declining ecosystems around the globe.

Similarly, nature plays a critical role in regulating our climate. As natural areas are destroyed and as ecosystems degrade, they are less effective at supporting climate change mitigation and adaptation actions or providing other benefits to people. Healthy, biologically diverse ecosystems can also increase climate resilience by reducing the vulnerability of communities to climate change and increasing their capacity to recover from climate change impacts. In addition, healthy, diverse ecosystems help to clean the air we breathe and the water we drink, enable the growth of our food, and provide us with many other benefits, or 'ecosystem services', such as fuels, medicines and building materials. As such, biodiversity loss can affect the adaptability and resilience of ecosystems and their ability to migrate with a changing climate.<sup>3</sup>

Ecosystems play a key role in the global carbon cycle and climate change adaptation, while also providing a wide range of ecosystem services that are essential for human well-being and the achievement of the Millennium Development Goals.<sup>4</sup> Conserving natural terrestrial, freshwater and marine ecosystems and restoring degraded ecosystems (including their genetic and species diversity) is essential for the achieving the overall goals of not only the Convention on Biological Diversity (CBD) but also those of the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention to Combat Desertification (UNCCD).

b) What is needed in a post-2020 target(s) on climate change and biodiversity?

- Unfortunately, the world has not made significant progress on Aichi Targets 10 and 15, which are the two targets related to climate change and biodiversity. The myriad of interrelated issues contained in these targets remain particularly relevant given that climate change is one of the five key direct drivers of biodiversity loss and that resilient and biodiverse ecosystems are a key factor in supporting climate change efforts.
- In addition, it was not entirely clear what the objective of these two targets was for Parties. The two targets were not adequately supported with baselines, data and indicators for assessing progress.
- No significant progress towards these two targets has been made, owing to accelerating impacts of climate change and the interaction with other threats to ecosystems such as increasing land degradation and the unsustainable use of natural resources.
- In turn, increasingly vulnerable ecosystems are unable to support climate change mitigation. Similarly, vulnerable ecosystems are less likely to be able to support adaptation to a changing climate.

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<sup>1</sup> Millennium Ecosystem Assessment, 96, 384; IPBES Global Assessment (Summary for Policy Makers) (2019), 3.

<sup>2</sup> IPBES Global Assessment Summary for Policy Makers, 3.

<sup>3</sup> Millennium Ecosystem Assessment (2005), 384.

<sup>4</sup> CBD Website: <https://www.cbd.int/climate/intro.shtml>



- Recent assessments show that many data gaps remain, especially for “other vulnerable ecosystems” and that multiple indicators are still missing.
- Because the target statement in Aichi Target 10 specifically mentions coral reef as one of the vulnerable ecosystems to climate change and ocean acidification, most of the global attention has been focused on this type of ecosystem. However, there are many vulnerable ecosystems that are feeling the dual strain of biodiversity loss and climate change impacts including polar regions, mountainous regions, coastal regions and others.
- With respect to the issues highlighted under Aichi Target 15, efforts are being made to restore ecosystems but little data are available to track progress globally and what does exist, appears to remain insufficient.
- In summary, a Post-2020 climate change target needs to be much more clearly defined, focused more precisely on what the objective under the CBD should be with respect to climate change and be supported with clear indicators and baselines to effectively assess progress. A new target related to climate change and biodiversity is essential, but should be more focused on how biodiversity conservation and sustainable use can support climate change mitigation and adaptation efforts. A new target should also address the role of healthy ecosystems in ensuring that biodiversity can also adapt to climate change.

c) Towards a possible post-2020 target on climate change and biodiversity:

- Given the overlapping and intersecting issues related to climate change, a new climate change target in the Post-2020 Framework might benefit from a separation of climate change mitigation, ecosystem resilience and restoration. Such an approach may help simplify these issues, lead to clearer objectives for parties and be better supported by indicators. While this may allow for simpler, shorter and clearer targets, it would also lead to a more numerous overall set of targets.
- Alternatively, a single climate change and biodiversity target could be developed covering a) the role of biodiversity in helping to reduce levels of atmospheric greenhouse gas; b) the role of biodiversity in helping people and nature adapt to the negative impacts of climate change.
- In regards to nature’s role in climate change mitigation efforts, target language should not prioritize the reduction of atmospheric greenhouse gas levels over biodiversity considerations.
- The focus of the Aichi Targets vis-à-vis climate change has largely been on terrestrial ecosystems. Oceans are also major carbon sinks and play an important role in climate change adaptation.
- A post-2020 target on climate change should be framed with respect to the CBD’s mandate. It should be clear that a new CBD target should focus on enhancing efforts under the UNFCCC and not being in competition with or superseding the mandate of the UNFCCC.

#### 4. Species Diversity

a) Evidence Base:

Species conservation equates to biodiversity conservation, and thus encompasses one of the main three objectives and desired outcomes of the Convention on Biological Diversity. However, despite its critical importance, species conservation was not included as a thematic consultation



topic for the post-2020 framework, thus necessitating a more thorough discussion through this exercise in terms of what is needed post-Aichi Targets to reverse the ongoing and accelerating loss of biodiversity loss worldwide.

This will be informed first and foremost by the science and evidence base. A review of the draft GBO-5, the IPBES Global Assessment, the CBD Secretariat's updated scientific assessment (2018) and recent peer-reviewed published science indicates that:

- Sufficient progress is not being made on the species conservation target. Despite the many Aichi Target actions over the past 10 years, species and biodiversity is continuing to decline and for some species groups the loss is accelerating, making this critical to address in the post-2020 framework.
- The most recent December 2019 statistics from the [IUCN Red List of Threatened Species](#) document that 30,178 species globally are threatened with extinction, with a total of 112,432 species assessed to date, amounting to more than a quarter (27%) of all assessed species threatened worldwide.
- However, as outlined in the 2019 IPBES Global Assessment, the true scope of the amount of biodiversity that we have lost and will continue to lose is much more vast, showing that nearly 1 million species risk becoming extinct within decades (as the Red List is only able to document what has been assessed so far, given the challenges of resourcing).
- Species are essential building blocks for ecosystems and ecosystem services, so their conservation at sustainable and healthy (self-sustaining) levels, along with maintenance of their genetic diversity, needs to be a core outcome of the post-2020 global biodiversity framework.

b) What is needed in a post-2020 target on species conservation?

- Aichi Target 12 on species conservation remains extremely relevant for the post-2020 framework. While there have been species conservation successes in the past 10 years, with some species being pulled back from the brink of extinction and with species loss likely to have been higher without the interventions made, it has not been enough to reverse continued global biodiversity decline.
- Progress on this target has been and will remain reliant at least in part on reducing and reversing the drivers of biodiversity loss encapsulated in other targets. Thus it is critical that the wording of the post-2020 targets that address the drivers of biodiversity loss must be clear in terms of how implementation of the targets will help to contribute to improving species populations.
- Aichi Target 12 stated '*By 2020, the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained*'. The focus on 'known threatened species' created problems in that there is no consideration for species that may not be assessed yet, are data deficient, or may be Least Concern or Near Threatened but are declining. There is a broad acknowledgement for the post-2020 framework that the wording 'known threatened species' should be removed, to ensure common species also stay common, in addition to urgently improving the conservation status of the most threatened species.
- The indicators that were used to monitor progress on implementing Aichi Target 12 as per CBD/COP/13/28 were robust in terms of having long and science-based data sets with good baselines, so they should be used again for the post-2020 framework as outlined in the next section.





c) Towards a possible post-2020 target on species conservation:

Aichi Target 12 on species conservation remains extremely relevant for the post-2020 framework and should therefore be a central focus of the framework.

A number of proposals have been submitted so far to address the issues with Aichi Target 12. Important elements of these proposals which need to be analysed include:

By 2030,

- The percentage of species threatened with human-driven extinction has been reduced by X%.
- Overall species population declines have halted.
- Human-driven extinctions of species have been prevented.
- There is X% of species less at risk of extinction.
- Overall species populations / abundance has increased or is increasing by X%.
- The status of X% of species has improved.
- Species that are secure have remained secure.
- Populations of threatened species have exhibited positive recovery trends.

Global level indicators should build on those used to assess the Aichi Targets and for GBO and IPBES reports for continuity, as well as for the SDGs, and thus should include (from CBD/COP/13/28):

- Trends in number of extinctions - # of species extinctions
- Trends in extinction risk and populations of species
  - Red List Index (an indicator for SDG target 15.5)
  - Living Planet Index
  - Wild Bird Index
- One other indicator that has not been used yet and could be with existing Red List information would be trends in number of species becoming extinct or qualifying for Critically Endangered status globally. Critically Endangered species can often be considered as 'functionally extinct' with such low population sizes and it is much easier to identify Critically Endangered than those that are extinct.
- A final indicator not currently used but which could be generated easily from Red List data would be trends in the proportion of threatened species that have improved in status relative to 2020.

Key milestones (matching the indicators above) could include:

- Mean population abundance of species decreases by 1% during 2020-2025, 0% during 2025-2030.
- The Red List Index decreases by 1.5% during 2020-2025 and by 0.5% during 2025-2030.
- The number of species becoming Extinct, Extinct in the Wild or Critically Endangered owing to genuine deterioration reduces to 20 during 2020-2025 and 0 during 2025-2030.
- The proportion of threatened species that have improved in status relative to 2020 exceeds 15% by 2025 and 30% by 2030.



## **B. INDICATORS AND BASELINES**

At the first meeting of the Open-Ended Working Group (OEWG) of the Post-2020 Global Biodiversity Framework, Parties stated that “future biodiversity targets need to be specific, measurable, ambitious, realistic and time-bound (SMART)”. Furthermore, many Parties including Canada have stated that targets and indicators must be developed concurrently. At SBSTTA-23, Parties decided to request the Executive Secretary to invite written submissions from Parties on possible indicators, compile the views and make them available for the consideration of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework at its upcoming meetings and the Subsidiary Body on Scientific, Technical and Technological Advice at its twenty-fourth meeting.

The global nature of the *2011-2020 Strategic Plan for Biodiversity* demonstrates that it has been difficult to track progress in achieving the Aichi targets. Status updates show that there has been 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 which can explain this lack of progress is that we do not have the right instruments to track the implementation of the plan. This responds in part to the challenges that have been inherent in tracking Aichi Target progress at the global level. For instance, the IPBES Global Assessment highlights that progress on Target 15 is unknown as trends in carbon rich ecosystems and restoration efforts are not being systematically tracked globally due to a lack of suitable indicator data. This is further corroborated in document [CBD/SBSTTA/23/INF/4](#).

While monitoring for some targets like Target 15 requires improvement, others have been effective and should be utilized again in the Post-2020 Global Biodiversity Framework. To the extent possible, existing indicators should be used to avoid duplication of work and this would also ensure that we continue building the baseline established for the 2011-2020 Biodiversity Strategic Plan. In the same vein, where possible, indicators used with other international conventions and processes such as the SDGs should be considered for the framework’s monitoring system.

Using the information provided in documents [CBD/SBSTTA/23/INF/3](#) and [CBD/SBSTTA/23/INF/4](#), Canada invites the co-chairs of the OEWG and the Chair of SBSTTA to consider the following submission regarding the development of indicators for the new Post-2020 Global Biodiversity Framework. Canada has also directly commented on document [CBD/SBSTTA/23/INF/4](#) as directed by notification 2019-108.

This present submission is organized in two sections. The first part provides our key recommendations on selecting indicators in a systematic way to ensure the development of an effective monitoring system. The second section summarizes gaps in the *2011-2020 Strategic Plan* as it relates to this proposed methodology and a potential selection of indicators that should be considered going forward, based on the information that was provided by [CBD/SBSTTA/23/INF/4](#).



## **Systematic approach for the selection of indicators**

Indicators for the post-2020 biodiversity framework should be developed in parallel with the targets to avoid the time lag between the two, which impacted the *2011-2020 Strategic Plan for Biodiversity*. Moreover, a systematic methodology including the use of criteria should help to identify indicators for the Post-2020 Global Biodiversity Framework, such as document CBD/SBSTTA/23/INF/4 starts to do. This will ensure that progress towards the new targets can be monitored in a concerted way at the global and national level.

Building on the document “Indicators for global and national biodiversity targets – Experience and indicator resources for development of the post-2020 global biodiversity framework” ([CBD/SBSTTA/23/INF/4](#)) as well as the OECD’s work ([CBD/SBSTTA/23/INF/3](#)), three criteria could be used as a way to select indicators methodically.

### **1. Indicators should be measurable and specific**

- i. To the extent possible, the indicators should be comprised of a quantitative component.
- ii. Data time series – data are available over time (multiple data points over years) and there is a system in place where this will continue (e.g., the indicator is entrenched in the host organisations programmatic work and there is funding).
- iii. Alignment with the Target – the indicator is a direct measure of the target or an element of it.

While most of the indicators from the *2011-2020 Biodiversity Strategic Plan* were considered measurable, rare were the ones that could be quantified. In addition, most of the indicators were comprised of vague concepts which made it difficult for Parties to report on effectively.

### **2. Data should be available to assess progress globally and nationally** (this links with the suggestions in CBD/SBSTTA/23/INF/4)

- i. Data must be able to provide a global assessment, so have global geographic coverage.
- ii. Similar categories of data must be available and comparable across countries.
- iii. Global data must be able to be disaggregated to country level or otherwise adapted to national or subnational scales (which can then be aggregated to the global level).

Serious weaknesses for the overall measurability of several indicators in the *2011-2020 Strategic Plan* arose due to the lack of data and/or an established baseline.

### **3. Indicators should be few and effective**

Some of the Aichi targets have up to sixteen indicators. With too many indicators to pick and choose from, Parties have selected different indicators for their national reporting. As a result, it was not possible to assess overall progress against some of these targets.



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Having fewer, but effective indicators would help provide a better picture of the global progress in meeting the 2030 targets.

In the event that indicators do not meet these criteria to measure a target, two options should be considered: 1) develop new indicators that meet the criteria mentioned above; or, 2) reassess the need for a particular indicator if the above criteria is not met. The Convention on Biological Diversity should not adopt targets that cannot be measured.



## Gap Analysis

The table below first outlines the gaps in the current themes in the *2011-2020 Strategic Action Plan* as it relates to the criteria identified above, and second suggests potential indicators that could be used for post-2020 targets (building on Annexes 1 to 3 in CBD/SBSTTA/23/INF/4).

Target Themes	Measurability and specificity	Data Availability	Effectiveness
<b>Target 1:</b> Public awareness	While the indicators for this target are measurable, there are serious weaknesses for the overall measurability of Aichi Target 1 due to the lack of data/baseline.	There is insufficient data available to measure progress at the global level. However, conservation scientists and practitioners have recognized the potential of sourcing data from internet and social media streams which provide a new approach to measure public awareness.	There are currently three indicators that measure trends in “awareness and attitude” and rely primarily on Biodiversity Barometer or opinion surveys that use divergent methodologies and are time-consuming, geographically restricted, and expensive. It can display temporal and spatial trends in public engagement with biodiversity at global and national scales  No indicator has been developed that could measure whether people are aware of specific “steps they can take to conserve and use it sustainably”.
<b>Target 2:</b> Valuing biodiversity	There are serious weaknesses for the overall measurability of Target 2 and there is a clear need for quantifiable indicators for this target.	The national reports are the only source of data to measure progress towards this target.  Indicators are currently missing on measuring trends in the integration of biodiversity values into national and sub-national development and planning processes and strategies.	The indicators for this target are currently ineffective. In their 5th National Reports, only a few parties actually used the indicators to report on progress toward Target 2. Instead, many countries referred to different valuation studies associated with specific ecosystem services or habitats.
<b>Target 3:</b> Incentives	Given the lack of consensus on the definition of incentives harmful to biodiversity, their measurability has been problematic. There is a clear need for quantifiable indicators and milestones for this target.	According to the OECD, while comparable and internationally collected data on government support in various sectors is useful to track trends, and can in some cases serve as a rough proxy for indicators on subsidies potentially harmful to biodiversity at the national level, studies conducted at the national level can provide the higher degree	No global indicators suitable for extrapolation are available to assess progress in eliminating subsidies or other harmful incentives. There has been little progress in applying positive incentives for conservation.  To date, six specific Target-3 indicators have been recognized by the CBD, of which three measure “trends in the number and value of incentives, including subsidies, harmful to biodiversity, removed,



Target Themes	Measurability and specificity	Data Availability	Effectiveness
		<p>of specificity that is needed to move beyond this.</p> <p>Data available on incentives includes:</p> <ul style="list-style-type: none"> <li>- Number of countries with biodiversity-relevant taxes</li> <li>- Number of countries with biodiversity-relevant fees and charges</li> <li>- Number of countries with biodiversity-relevant tradable permit schemes</li> </ul>	<p>reformed or phased out” and three measure “trends in development and application of incentives that promote biodiversity conservation and sustainable use”. Three of these six indicators are still in development but, once fully developed, they could provide adequate means of measuring progress towards Target 3.</p>
<p><b>Target 4:</b> Sustainable production &amp; consumption</p>	<p>The elements under this target are hard to define and quantify. This makes it difficult for Parties to ensure consistency in their responses and to set specific thresholds to be met in order for the target to be achieved. Part of making this target more measurable should including setting baselines. The indicators as they stand are difficult to measure and should be quantified.</p>	<p>There is a sufficient amount of data available to measure this target. Data available to measure sustainable production and consumption includes:</p> <ul style="list-style-type: none"> <li>- Red List Index (impacts of utilization)</li> <li>- Red List Index (internationally traded species)</li> <li>- Percentage of Parties with legislation in Cat. 1 CITES</li> <li>- HANPP</li> <li>- Number of MSC Chain of Custody Certification holders by distribution country</li> <li>- Number and volume of MSC certified consumer-facing products by distribution country</li> </ul>	<p>To date, fifteen specific Target-4 indicators have been recognized by the CBD. No specific indicators have been identified to measure “trends in extent to which biodiversity and ecosystem service values are incorporated into organizational accounting and reporting” (which would correspond to the first Target element and the aspirational components “steps” and “plans”). That being said, in 2017 the UN Economic and Social Council (ECOSOC) adopted an indicator framework for the SDGs which includes “Indicators of success” with regard to a global shift toward sustainable consumption and production.</p> <p>Given that sustainable production and consumption is addressed under various multilateral environment agreements (MEAs) and international fora, there are opportunities to increase synergies of reporting requirement between the relevant international bodies.</p>



Target Themes	Measurability and specificity	Data Availability	Effectiveness
<p><b>Target 5:</b> Habitat loss</p>	<p>If a quantitative element is to be included for this target, a baseline from which progress is assessed needs to be well established. This baseline could potentially be defined globally via an indicator or nationally via a milestone. For “natural/unaltered” habitat, the baseline could be identified by first clearly identifying the remaining areas under globally agreed criteria. For degradation and fragmentation, should this baseline be: pre-disturbance, as of a set date? In order to remain relevant, an indicator for assessing fragmentation must be developed under this target.</p>	<p>The current indicators suggest a highly variable picture in different parts of the world and among different biomes, with data still scarce for many types of ecosystems. There is high regional discrepancies in terms of data availability. As such, it could be said that a limited amount of data is available to measure this target at the global level. For instance, no globally-agreed upon measure exists for the extent of coastal and freshwater wetlands.</p> <p>Data available to measure habitat loss includes:</p> <ul style="list-style-type: none"> <li>- Wetland Extent Trends Index</li> <li>- Red List Index (forest specialist species)</li> <li>- Forest Area as % of total land area</li> <li>- Proportion of land that is degraded over total land area</li> <li>- CGMFC-21 (Continuous Global Mangrove Forest Cover)</li> <li>- Biodiversity Habitat index</li> <li>- Biodiversity Habitat Index (for terrestrial habitat)</li> <li>- Ocean Health Index (for marine habitat)</li> </ul>	<p>In order to clearly capture everything that is included under “all natural habitats”, clear sub-elements or indicators could be developed for specific habitats: i.e., natural forest, native prairies, poles, tundra, wetlands and peatlands, mangroves, deserts, fresh water, coral reef, shorelines, open ocean, and deep ocean.</p> <p>For consistency purposes and to avoid duplication of work, there is an opportunity to align the indicators under this target with the indicators of other processes such as FAO and the SDGs.</p>
<p><b>Target 6:</b> Sustainable fisheries</p>	<p>The target and its indicators is very prescriptive by including many components but those are largely aspirational. There is a need to identify clear and measurable indicators for this target, as well as specific interim</p>	<p>Globally, there is relatively little information on the management and harvest of aquatic invertebrates and plants, and there is little globally-consistent information on inland waters fisheries.</p>	<p>Gaps exist with respect to global reporting on establishing recovery plans and measures for all depleted species, on the impacts of fisheries on threatened species and vulnerable ecosystems, on the impacts of fisheries on ecosystems, stocks and species.</p>



Target Themes	Measurability and specificity	Data Availability	Effectiveness
	<p>milestones and actions that would allow progress to be more easily monitored.</p>	<p>Data available includes:</p> <ul style="list-style-type: none"> <li>- Marine trophic index</li> <li>- Living planet index (trends in target and bycatch species)</li> <li>- Marine Stewardship Council (MSC) certified catch</li> <li>- Proportion of fish stock within biologically sustainable level</li> <li>- Red List Index (impact of fisheries)</li> <li>- Large Reef Fish</li> </ul>	<p>Inland fisheries have not been tracked under this target or under other targets. Status and trends of other marine wildlife and other non-commercial species of fish, as well as the status of ecosystems, are not reported globally (including beyond the impacts related to fisheries). As such, it is difficult to assess the health of marine ecosystems.</p>
<p><b>Target 7:</b> Sustainable forestry and agriculture</p>	<p>Reporting of the status and trends of biodiversity and ecosystems in these sectors is relatively weak and sparse overall, with aquaculture being the worst of the 3 sectors in terms of global reporting. Most measures relate to the use of sustainable practices or level of certification to sustainable standards and it is assumed that these translate directly to positive outcomes for biodiversity and conservation. Yet, the few biodiversity indicators that are available globally show continued declines in biodiversity (with regional variations) despite increasingly more sustainable sectors. There needs to be better defined target elements, milestones and indicators to better assess and report on the status and trends of biodiversity in these sectors at the global level.</p> <p>In order for the target to be achievable, we must better define what sustainable</p>	<p>Globally, beyond tracking sustainability of sectors via trends in certification, it is difficult to assess the sustainability of these sectors with respect to use and impacts on biodiversity / ecosystems. Reporting is incomplete and sources of information sparse for all three sectors. Data available includes:</p> <ul style="list-style-type: none"> <li>- Area of forest under FSC and PEFC</li> <li>- Wild Bird Index (forest and farmland specialist)</li> <li>- Living planet Index (farmland species)</li> </ul>	<p>The indicators used by the Biodiversity Indicators Partnership (BIP) are currently incomplete. There are some good indicators for forestry, but not for agriculture or aquaculture.</p>





Target Themes	Measurability and specificity	Data Availability	Effectiveness
	<p>means. In this case, because the outcome is ensuring biodiversity conservation, some of the indicators should be related to trends in species, habitats (including wildlife habitat capacity), planning using ecosystem-based approaches, trends in ecosystems, etc.</p>		
<p><b>Target 8:</b> Pollution</p>	<p>Sixteen specific Target-8 indicators have been recognized by the CBD, of which nine measure “trends in pollutants”, one measures “trends in extinction risk and populations driven by pollution”, one measures “trends in ecosystems affected by pollution”, and five measure “trends in nutrient levels”. There is a lack of measurability for the indicators under this target.</p>	<p>Data available includes:</p> <ul style="list-style-type: none"> <li>- Trends in loss of reactive nitrogen to the environment</li> <li>- Trends in nitrogen deposition</li> <li>- Red List Index (impacts of pollution)</li> <li>- Water Quality Index for Biodiversity</li> </ul>	<p>There are too many indicators for this target. In their fifth National Reports, Parties reported most commonly on indicators related to nitrogen and phosphor to assess progress toward Aichi Target 8. However, these indicators are not always comparable due to different methodologies and because some refer to specific but varying ecosystems. Some Parties have used indicators in their national reports that are proxies such as the import/use of fertilizers, pesticides and insecticides, the amount of untreated waste water or the amount of waste material generated. However, while these indicators are relevant to this Target, they do not necessarily indicate if levels of nutrients or other pollutants are at or above levels which are detrimental to biodiversity.</p> <p>While there is a need to broaden the scope of this target to include emerging pollutants, the challenge will be to keep a reasonable number of indicators to measure progress in a systematic way.</p>
<p><b>Target 9:</b> Invasive alien species</p>	<p>Despite being quite specific, without any reference to a quantifiable component, progress on Target 9 can be difficult to assess. Having quantifiable elements in the target wording and/or addressing the gaps highlighted with regards to the indicators could be a way of strengthening ambition on this target in</p>	<p>While there is a sufficient amount of data available, there is a need for a global database to track invasive alien species globally.</p> <p>Current data available includes:</p> <ul style="list-style-type: none"> <li>- Red List Index (impacts of invasive alien species)</li> </ul>	<p>As Target 9 is a moving target, where concerted efforts might achieve some positive outcomes for some IAS while others species/specimens continue to be introduced, any new indicators proposed for adoption should take a “positive approach” looking at actions taken rather than outcomes.</p>



Target Themes	Measurability and specificity	Data Availability	Effectiveness
	<p>the Post-2020 Global Biodiversity Framework.</p>	<ul style="list-style-type: none"> <li>- Trends in the number of invasive alien species introduction events</li> <li>- Proportion of countries adopting relevant national legislation and adequate resourcing the prevention or control of IAS</li> <li>- Trends in invasive species vertebrate eradication</li> </ul>	
<p><b>Target 10:</b> Climate change</p>	<p>Evidence base and expert knowledge for setting % indicators for this target is needed.</p> <p>Additional indicators could focus on the positive accomplishments that has been made to contribute to halting the current negative trends. However, these indicators should be informed by a more clearly defined target.</p>	<p>Recent assessments show that many data gaps remains, especially for “other vulnerable ecosystems”.</p> <p>Data available includes:</p> <ul style="list-style-type: none"> <li>- Ocean Health Index</li> <li>- Climatic impacts on European and North American birds</li> <li>- Red List Index (reef-building corals)</li> <li>- Cumulative impact on marine ecosystems</li> <li>- Live Coral Cover</li> <li>- Reef Fish Thermal Index</li> </ul>	<p>Target 10’s indicator on “species index impacted by climate change in other vulnerable ecosystems” is still under development and no specific indicators have been identified to measure “trends in responses to reduce pressures on coral reefs”, “trends in extent, condition and pressures of other vulnerable ecosystems impacted by climate change or ocean acidification”, “and “trends in responses to reduce pressures on other vulnerable ecosystems impacted by climate change or ocean acidification”.</p>
<p><b>Target 11:</b> Protected areas</p>	<p>Ensuring stronger and clearer indicators that are perhaps developed and adopted with their post-2020 targets could be a way to raise ambition and accountability. On the other hand, some of the current indicators are considered weak and sometimes misleading by the reporting community, such as the indicator on connectivity.</p>	<p>While there are technically indicators that already exist or that are being developed for almost all the target elements, many countries do not have the data or the capacity to report on more than coverage and number of areas conserved. Data available includes:</p> <ul style="list-style-type: none"> <li>- Protected area coverage</li> <li>- Protected area coverage of Key Biodiversity Areas</li> <li>- Protected area coverage of ecoregions</li> </ul>	<p>Currently the CBD has 13 indicators under Target 11 that covers to some extent all its elements except “areas conserved for ecosystem services”, noting that ecosystems services is already covered to some degree under Target 14, with a particular focus on vulnerable communities. Some additional elements that could be assessed and could contribute to filling the gaps include:</p> <ul style="list-style-type: none"> <li>- The functionality of the areas under protection: the protection of valued and identifiable ecosystem goods and services (i.e., filtering of water, exchange of gasses with the atmosphere, habitat, forest products, etc.) and the socio-economic impacts on IPLCs</li> </ul>



Target Themes	Measurability and specificity	Data Availability	Effectiveness
		<ul style="list-style-type: none"> <li>- Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type</li> <li>- Protected area connectedness index</li> <li>- Protected Area representativeness index</li> <li>- Protected Area Management Effectiveness</li> <li>- Protected Area Management Effectiveness</li> <li>- Wildlife Picture Index in tropical forest protected areas</li> </ul>	<ul style="list-style-type: none"> <li>- The effective protection of all biodiversity elements contained in the area, while also noting that attaining effective protection and species recovery usually does take time.</li> </ul>
<p><b>Target 12:</b> Threatened species</p>	<p>On measurability and being more result-oriented, looking at species status at an ecosystem or through multi-species approach, rather than a single species at the global scale like it is the case for Target 12, could potentially capture smaller variations and counteract to some extent for time lag effect. Additionally, this could mean more attention and efforts towards lesser charismatic species.</p>	<p>While significant data gaps and time lags remain, Target 12 continues to be one of the global targets for which the most information is available, while also noting that there is comparatively less information on marine extinctions than on terrestrial ones. Overall, it can be said that there is a sufficient amount of data available. Data available includes:</p> <ul style="list-style-type: none"> <li>- Red List Index</li> <li>- Wildlife Picture Index</li> <li>- Living Planet Index (forest specialists)</li> <li>- Living Planet Index</li> <li>- Number of species extinctions (birds and mammals)</li> <li>- Number of extinctions prevented</li> <li>- Biodiversity Intactness Index (BII)</li> </ul>	<p>If more and more species status get assessed as part of the Red List Index, it is very likely that more and more species will be added to the list of threatened ones. Thus, by evaluating the progress made on this target using an indicator such as the Red List, we might be setting ourselves up for failure. Additionally, the Red List reflects changes in the status of species as a whole and not within an ecosystem or a population, therefore significant improvements are needed before progress can be registered.</p>



Target Themes	Measurability and specificity	Data Availability	Effectiveness
<p><b>Target 13:</b> Safeguard Genetic diversity</p>	<p>No numerical target has been established for any of the elements under genetic diversity. The target is largely made of aspirational components. This is most likely because there is no scientific consensus on how to measure genetic diversity.</p>	<p>There is a data gap at present because few countries have provided information to populate the indicators.</p> <p>Data available includes:</p> <ul style="list-style-type: none"> <li>- Red List Index (wild relatives of domesticated animals)</li> <li>- Proportion of local breeds classified as being at risk, not-at-risk or at unknown level of risk of extinction</li> <li>- Comprehensiveness of conservation of socially and culturally valuable species</li> </ul>	<p>To date, the CBD has recognized nine specific Target 13 indicators. Four measure “trends in genetic diversity of cultivated plants”, one measures “trends in genetic diversity of farmed and domesticated animals”, two measure “trends in extinction risk and populations of wild relatives”, one measures “trends in protected area coverage of wild relatives (to be resolved)” and one measures “trends in development and implementation of strategies for minimizing genetic erosion and safeguarding genetic diversity”.</p> <p>Seven of these nine indicators are still under development and therefore not yet available. Furthermore, no specific indicators have been identified yet that could measure “trends in genetic diversity of other socio-economically as well as culturally valuable species”, nor is such a set or sets of species easily defined.</p> <p>The combination of several indicators may be of use for this area of the framework.</p>
<p><b>Target 14:</b> Ecosystem services</p>	<p>Tracking of this target is very difficult, mainly because Target 14 is complex with many elements. The target would benefit from being reworded and its intention made clearer. That being said, the current indicators for this Target are measurable and still relevant.</p>	<p>Current data available includes:</p> <ul style="list-style-type: none"> <li>- Red List Index (species used for food &amp; medicine)</li> <li>- Red List Index (pollinating species)</li> <li>- PA coverage of montane biodiversity sites</li> </ul>	<p>Some elements in this target are currently not being tracked. For example, there should be an indicator for the restoration of degraded ecosystems and their services. Unfortunately, there are no previously CBD-established indicators to cover these types of elements. To this end, new indicators will be needed. It will be challenging to keep a reasonable number of indicators to measure progress of all the elements under this target in a concerted way.</p>
<p><b>Target 15:</b> Ecosystem restoration</p>	<p>As showed by the IPBES Global assessment (2019), the progress status for Target 15 is unknown and trends in carbon rich ecosystems and restoration efforts are not being systematically tracked globally. This is highly due to</p>	<p>Efforts are being made to restore ecosystems but no data are available to track progress.</p>	<p>Both adopted indicators for Target 15 measure “trends in carbon stocks within ecosystems.” It is not clear how trends in ecosystem carbon stocks captures the restoration of the integrity of those ecosystems. For instance, for forest, commercially valuable species of trees might be planted instead of native tree species which would translate into an increase of carbon stocks but not in the recovery of native biodiversity. An element of ecosystem integrity is missing with respect to restoration. In addition, no specific indicators have been</p>



Target Themes	Measurability and specificity	Data Availability	Effectiveness
	the lack of indicators with suitable data for Target 15.		identified to measure “trends in ecosystem resilience”, although an ecosystem integrity indicator might serve as a proxy indicator.
<b>Target 16:</b> Access to and benefits of genetic resources	Indicators that could help provide greater clarity and legal certainty would be helpful to all. Potential indicators could include detailed actions.	The main data to measure this target are the number of Parties to CBD to Nagoya Protocol.	Indicators (or milestones) could potentially include both general CBD and Nagoya-related actions/measures. Given that clarity on ABS measures are helpful for non-Nagoya Parties as well as Parties, indicator language should be as inclusive as possible.
<b>Target 17:</b> NBSAPs	Target 17 is a very specific and measurable target that was easy to measure and track progress. Little would need to be adjusted to make the target more “smart”.	The main data to measure this target is the number of countries with developed or revised NBSAPs.	Clear and measurable indicators for this target, as well as specific interim milestones and actions would allow progress to be more easily monitored.
<b>Target 18:</b> Traditional knowledge	The target statement and its indicators are vague, making it hard to report on progress globally and nationally. As such, there is a need for clear and measurable indicators for this target, as well as specific interim milestones and actions that would allow progress to be more easily monitored.	Progress towards this target is not on track and is largely unknown due to scarce data and inconsistent methodologies.	
<b>Target 19:</b> Sharing information and knowledge	To date, four specific Target-19 indicators have been recognized by the CBD, all of which measure the “number of maintained species inventories being used to implement the Convention.” These indicators are generally focused on the status information collection and largely provide information on the improvement of the knowledge and science base related to biodiversity. These indicators are fairly measurable.	It can be said that that there is sufficient data available to measure progress towards this target. Data available includes: <ul style="list-style-type: none"> <li>- Growth in species occurrence records accessible through GBIF</li> <li>- Proportion of known species assessed through IUCN Red List</li> </ul>	There were few indicators related to the sharing of information, its transfer or its application. That being said, many new initiatives have emerged that aim to generate biodiversity-related knowledge and to share amongst knowledge holders (IPBES, GTI, GEOBON, and BES-Net). These new initiatives could be utilized to create new indicators that reflect knowledge sharing as well as development.  Possible Milestones\Indicators that could be added to drive action in specific areas where gaps exist in this target: <ul style="list-style-type: none"> <li>- Indicators that emphasize the importance and promote progress on the technology transfer element</li> </ul>



Target Themes	Measurability and specificity	Data Availability	Effectiveness
	<p>The terms “shared”, “transferred”, and “applied” are not objective terms and can be applied in various, subjective ways. This makes it difficult to measure progress in achieving the current Target 19. Parties should attempt to define or provide guidance/best practices as to what is meant by “widely shared and transferred, and applied”. Attempts should be made to further define the ambiguous elements identified within this target through the establishment of indicators and milestones.</p>		<ul style="list-style-type: none"> <li>- Indicators could be added that consider regional gaps/disparities in knowledge</li> </ul>
<p><b>Target 20:</b> Resource mobilization</p>	<p>With the targets and the financial reporting framework adopted by decision XII/3, the measurability of resource mobilization is quite good within the CBD but could be improved.</p>	<p>Official Development Assistance for biodiversity is the main source of data to measure this target. This is incomplete as the financial reporting framework adopted through decision XII/3 contains numerous indicators addressing numerous resource mobilization issues that are not related to Official Development Assistance. However, few countries have complied with their commitment to report on these indicators.</p>	<p>Certain areas where gaps in reporting exist could be improved through additional indicators. In their fifth National Reports, Parties reported on indicators to assess progress toward Aichi Target 20 that “tended to focus on government expenditures in relation to things such as funding from central budgets for environmental issues, trends in funding available for certain ministries or for protected areas as well as expenditures related to official development assistance.</p>

## Conclusion

The table above focuses on gaps between the Aichi Targets and the current set of indicators agreed in CBD/COP/DEC/XIII/28, regarding issues such as whether the target wording was measurable in the first place, whether there were any indicators available to measure what was intended by the target and / or whether the indicators used over the past 10 years aligned with what the Aichi Target set out to implement, as well as issues with data availability.



which Parties and others were invited to comment on for notification 2019-108, focuses on systematically reviewing the existing indicators against a number of criteria, based on but slightly different than the criteria used for CBD/COP/DEC/XIII/28. Canada believes first and foremost that the new / updated targets of the post-2020 framework should include measurable language that directly corresponds to existing global indicators, or is phrased in a way that indicators can be immediately developed (e.g. if it involves governments collecting information about activities that they are undertaking to implement elements of the target, that can then be aggregated to the global level).

Canada thinks that the existing Aichi global indicators should be used in the post-2020 global biodiversity framework to ensure comparability, though in some cases this might not be possible with new target wording and / or where the indicators did or do not match the target elements.

In particular, anticipating that many of the same indicators will continue to be used for the post-2020 framework (as long as they measure what is set out in the target), the Government of Canada requests that the CBD Secretariat further the analysis in Annex 1 of CBD/SBSTTA/23/INF/4 and the corresponding dataset now available online at <https://www.bipindicators.net/list-of-global-indicators-available-for-review> (which clarifies which exact indicators have global data geographic coverage and good data time series) by:

- Adding two criteria from CBD/COP/DEC/XIII/28 ('Used in GBO3/ GBO4', 'Easy to Communicate') to the criteria used by UNEP-WCMC in CBD/SBSTTA/23/INF/4 (e.g. 'Alignment to Aichi Target', 'Data geographic coverage', 'Data time series'). These are important criteria to review the effectiveness of using various criteria as well as those in Annex I of CBD/SBSTTA/23/INF/4.
- Clarifying whether the criterion 'Data disaggregated for national use' in the online dataset for Annex 1 of CBD/SBSTTA/23/INF/4 is the same as the criterion 'Global indicator can be disaggregated to create national indicator or is aggregated from national data' from CBD/COP/DEC/XIII/28. Essentially we need to know which indicators currently provide global data that can be disaggregated to the national level.
- Clarifying whether the criterion 'Method suitable for national use' in the online dataset for Annex I of CBD/SBSTTA/23/INF/4 is the same as the criterion 'National data are aggregated to form global indicator' from CBD/COP/DEC/XIII/28. As per the point above, we need this criterion to show which indicators currently allow countries to collect data at the national level which can then be aggregated to the global level.
- Highlight those indicators that meet all criteria (alignment to the target, global data geographic coverage, good data time series, global data able to be disaggregated to the national level and / or national data able to be aggregated to the global level, SDG indicator as well, those used in previous GBO / IPBES reports).



- Highlight those indicators where there are issues (e.g., partial data geographic coverage or poor data time series) and indicate, if possible, whether there are any solutions to rectify the issue and / or what these solutions might be (and snapshot time / resources needed to do so).
- Add any suggestions for possible new indicators (this will be an iterative process as the development of the targets progress), in particular those proposed in the zero draft or that may be developed relatively easily (e.g., new Red List analyses such as trends in number of species qualifying for Critically Endangered status, trends in the proportion of threatened species that have improved in status) and assess against the criteria as well.
- Map the newly suggested (zero draft and subsequent) post-2020 targets to the online UNEP-WCMC dataset of indicators and criteria, in line with the original Aichi Targets. We understand that UNEP-WCMC is already planning to undertake a review of the indicators proposed in the zero draft document, so we hope that the above will be in line with what they were already planning to prepare.

With the above information, Canada feels confident that it will be possible to:

- Understand which indicators could be prioritised for use in the post-2020 framework. Those that meet the criteria in CBD/SBSTTA/23/INF/4 (alignment to the target, global data geographic coverage, good data time series, global data able to be disaggregated to the national level and / or national data able to be aggregated to the global level, also an SDG indicator) as well as those used in previous GBO / IPBES reports, should be prioritised in particular.
- Confirm a more succinct, targeted and fixed list of indicators for the post-2020 framework at the same time as the targets are developed, thus enabling a more systematic, efficient and effective monitoring system to assess progress on the targets in the future.