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Item 3 of the provisional agenda*

INDICATORS FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Note by the Executive Secretary

BACKGROUND

1. The Executive Secretary is pleased to circulate herewith, for the information of participants in the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, an information document on indicators for the post-2020 global biodiversity framework, prepared by the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), in collaboration with the Biodiversity Indicators Partnership (BIP) and incorporating inputs from peer review.

2. The attached information document has not been formally edited or formatted. It is being circulated in the form in which it was received.

* CBD/SBSTTA/24/1.

INDICATORS FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Information Document prepared for SBSTTA24 by UNEP-WCMC in collaboration with the Biodiversity Indicators Partnership and incorporating inputs from peer review

Note by the Executive Secretary

1. INTRODUCTION

This document provides information on available indicators for the draft goals and targets of the post-2020 global biodiversity framework, based on the version of the draft monitoring framework that was available for peer review in May 2020. It includes analysis of available indicators and provides observations to assist the further development of the monitoring framework. The document builds on two information documents previously provided to the 23rd meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, CBD/SBSTTA/23/INF/3[1] and CBD/SBSTTA/23/INF/4,[2] and has been prepared in response to Recommendation 23/1 of that meeting (paragraph 13)[3] and recommendation 2/1 of the second meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework (paragraph 3).[4] This version of the document CBD/SBSTTA/23/INF/3 has been updated based on submissions provided by Parties, other Governments and observers in response to notification 2020-045 - an invitation to participate in the 'Peer review of draft documents for the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 24).[5]

The document includes an analysis of the availability and suitability of indicators that can be used to measure the progress in implementation of post-2020 global biodiversity framework, noting:

a. Where indicators already exist and are available for use for the different draft goals and targets;
b. Where published indicator methodologies are available;
c. Whether indicators are available for use at the national level as well as global scale, and where data used to create global indicators can be accurately aggregated from national data or disaggregated to the national scale;
d. Whether the same indicators are used to measure progress under other conventions and intergovernmental processes, including the Sustainable Development Goals (SDGs).

This document also provides considerations in relation to indicator availability for baselines for monitoring progress towards the implementation of the post-2020 global biodiversity framework. In addition, the document highlights various work underway to develop systems to track progress at the global and national scale towards the post-2020 global biodiversity framework, once adopted.

The information presented in this document is derived from data provided by members of the Biodiversity Indicators Partnership (BIP),[6] and indicator information submitted to the Secretariat of the CBD by Parties, other Governments and observers via the official peer review process.

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[1] CBD/SBSTTA/23/INF/3
[2] CBD/SBSTTA/23/INF/4
[3] *Requests* the Executive Secretary to submit for peer review by Parties and stakeholders the document on "Indicators for global and national biodiversity targets: experience and indicator resources for development of the post-2020 global biodiversity framework", and, in collaboration with other members of the Biodiversity Indicators Partnership, to prepare an analysis of the use of indicators in the sixth national reports, and, drawing upon this information as well as the inputs to the peer review and other relevant information, including CBD/SBSTTA/23/INF/3, to prepare a document that identifies 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, taking into account the outcomes of the second meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework, and to issue the document no later than six weeks in advance of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice for its consideration.
[4] *Invites* the Subsidiary Body on Scientific, Technical and Technological Advice at its twenty-fourth meeting to carry out a scientific and technical review of the updated goals and targets, and related indicators and baselines, of the draft global biodiversity framework, as well as the revised appendices to the framework, and to provide advice to the Working Group at its third meeting.
[5] Notification 2020-045
[6] www.bipindicators.net

To undertake this review UNEP-WCMC compiled all indicator information identified in the peer review submissions and used a published methodology[7] to assess indicator suitability. The results of this detailed assessment are provided in Annex 1. The document reflects work-in-progress and will be updated as the draft post-2020 global biodiversity framework and monitoring framework evolve during 2021. Further efforts are required to identify indicators related to those areas of the monitoring framework where gaps remain and to assess relevant indicators that become available during 2021.

2. FACTORS TO CONSIDER IN THE SELECTION AND USE OF INDICATORS IN THE MONITORING FRAMEWORK

This section outlines considerations that Parties may find useful when deliberating upon draft goals, targets and indicators to support the monitoring framework for the post-2020 global biodiversity framework. Some of these considerations include the drafting of SMART goals and targets, the capacity and systems to develop indicators, issues relating to data aggregation/disaggregation, the use of headline indicators, and enhancing synergies for indicator use across conventions and other intergovernmental processes. This section also highlights some attributes and criteria relating to indicators that Parties may wish to consider.

2.1 The measurability of proposed goals and targets of the post-2020 framework

At the second meeting of the Open-ended Working Group (OEWG) in February 2020,[8] Parties recognised the importance of including SMART goals and targets in the post-2020 global biodiversity framework. Measurable targets provide clarity on their concepts and intentions, enhance the potential availability of indicators and supporting datasets to track progress towards them, and facilitate assessment of progress towards their delivery. The draft monitoring framework for the post-2020 global biodiversity framework, which was made available for peer review in May 2020 (based on updated goals and targets requested by the second meeting of the OEWG) included “target components” and “monitoring elements” as well as a number of suggested indicators.[9] The updated version of the draft monitoring framework (after peer review) is presented in the Annex of document CBD/SBSTTA/24/3/Add.1.[10] This version includes some changes to the framework, such as the deletion of monitoring elements, as well as the addition of three groups of indicators - headline, component and complementary indicators

Given the current availability of indicators and data, various target components are difficult to measure. However, some of these gaps can be filled by ongoing work that is likely to become available during 2021, and other gaps can be filled by targeted investment. In addition, clarity in the wording of the proposed goals and targets as the post-2020 framework further develops will greatly assist the identification or development of suitable indicators. In addition to available indicators, the consideration of multiple lines of evidence, such as from scientific and participatory assessments, and expert knowledge, including with indigenous peoples and local communities (IPLCs) will be vital in tracking progress.

2.2 Capacity and systems to produce indicators

For an indicator to effectively measure progress towards the adopted goals and targets, there will need to be a time series with sufficient data points in line with the timeframe of the post-2020 global biodiversity

[7] Tittensor, D P et al. (2014) A mid-term analysis of progress toward international biodiversity targets. Science, 346:6208, pp 241-244. Available at: https://science.sciencemag.org/content/346/6206/241

[8] CBD/WG2020/2/4

[9] https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf

[10] CBD/SBSTTA/24/3/Add.1

framework. However, the number of data points required for specific indicators may vary depending on the issue/component being measured.

The production of an indicator requires a monitoring system to produce primary data, such as field observations or remote sensing of biodiversity, the compilation and analysis of the derived data, and the presentation of the information in an accessible and useable format for end-users. Generating such information requires sufficient resourcing. Lack of adequate resources to support this process can present a barrier to effective monitoring of progress towards the adopted goals and targets. It is therefore important to consider and plan for the quantity, quality and accessibility of the data and other resources required to deliver indicators, especially through strengthened national biodiversity monitoring systems.

Having a champion institution (indicator producer or custodian agency) that has the mandate to develop, calculate based on collated data, and regularly update the indicator is encouraged. For example, the SDG indicator framework works on the principle that each indicator has a custodian agency which is committed to its future production. This helps to ensure regular compilation of data and enhances the indicator's sustainability. Indicator producers or custodians take many forms, for example UN agencies, non-governmental organisations, intergovernmental organisations, national government agencies, national statistical offices, universities, and collaborations across these groups.

2.3 Roles and linkages between global and national indicators

The post-2020 global biodiversity framework will be implemented primarily at the national level. It is therefore important that the relative roles and suitability of both global and national indicators are considered.

The primary role of global indicators will be to measure progress at the global level towards both the proposed goals and targets. Various global indicators will be aggregated from national level data, and/or can otherwise be disaggregated to measure progress at the national level.[11] Each indicator needs to be conceptually valid and technically feasible for a global scale measurement. Some indicators will be direct measurements of the target subject, such as forest extent, protected areas coverage or the use of positive incentives. Other indicators may be indices derived from a combination of measures. Others might represent action that has been taken, such as number of Parties that have developed national gender action plans.

Some global scale indicators are derived from national datasets or national contributions, and the same data can readily be used to provide indicators at national or regional scale. An example of this is protected area coverage, where a large network of national focal points provides both spatial and associated attribute data on national protected and conserved areas in a standardised format to UNEP-WCMC, for inclusion and dissemination through Protected Planet[12] and the World Database on Protected Areas (WDPA).[13]

Some global indicators are produced from data obtained by remote sensing and/or curated global scale datasets on biodiversity features, such as forest or coral reef condition, or the status and trends in threatened species or species populations. These subjects and datasets are often transboundary in nature but can be disaggregated for national use. Data prepared in a globally consistent manner and disaggregated for national use can lower the barriers to reporting for countries. However, there are sometimes challenges when global data are downscaled for national use due to lack of resolution or

[11] For example: www.ibat-alliance.org/countryprofiles, CBD/SBSTTA/23/INF/3
[12] www.protectedplanet.net/
[13] https://www.protectedplanet.net/en/legal

applicability at national level. Political acceptability for use, and classifications/definitions (e.g. of forests) varies between countries, and globally-consistent approaches deployed in global databases means that where countries have their own national datasets for similar attributes as are captured in the global databases, global and national data and trends may not be the same in all cases.

Regional scale analyses of goals and targets, across countries or even at continental scale may often also depend on regional-scale indicators, which can help to provide context for national targets, strategies and reporting, including for transboundary issues such as migratory species. Similarly, many countries have sub-national systems of government and biodiversity policy making and action, and so indicators and data are needed at a sub-national scale. Identification of indicators that work flexibly at multiple scales is therefore highly desirable.

2.4 Criteria for indicator selection and development

The following criteria are suggested to aid the selection of indicators. The criteria reflect the collective experience, expertise and knowledge of the members of the Biodiversity Indicators Partnership in supporting global and national indicator development under previous strategic plans. Few indicators will meet all these criteria, rather they act as guiding principles to aid the selection and development of indicators. Annex 1 to this document provides the findings from an assessment of suitability of available indicators for the draft monitoring framework[14] in relation to a number of these criteria (denoted with *):

- Alignment with the goal or target, with clear evidence of how change in the indicator illustrates change in the issue of concern. *
- Availability and suitability for use at global and national scales. *
- Scientific robustness – the methodology for the indicator and the underlying data are published in a peer reviewed location that can be accessed, and the methodology can be repeated by other scientists or agencies with the same overall result obtained.
- Data are expected to be updated regularly throughout the duration of the post-2020 global biodiversity framework, and historical data are available to determine long-term trends. *
- Good geographic coverage of data (e.g. global indicator). *
- Indicator already in use (e.g. by the CBD, other conventions, SDGs, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services - IPBES). *
- Easily understandable: a) it is conceptually clear how the indicator relates to the goal or target, b) in its presentation, and c) in the interpretation of the data.
- “Championed” by an institution responsible for the indicator’s continued availability and communication. *
- Balanced representation of both outcome and process/effort-related related indicators.

2.5 Use of headline indicators in the post-2020 monitoring framework

Information document CBD/SBSTTA/23/INF/4[15] considers the different models used to track progress towards the Sustainable Development Goals (SDGs) and the current Strategic Plan for Biodiversity 2011-2020. The SDGs have an agreed official list of indicators, whereas the current Strategic Plan for Biodiversity

[14] https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf
[15] CBD/SBSTTA23/INF/4

has an "indicative list" that was developed by the Ad-hoc Technical Expert Group on Indicators for the Strategic Plan 2011-2020 and welcomed at the 13th meeting of the Conference of the Parties (Decision XIII/28).[16] However, there has been limited uptake in the use of indicators from the indicative list by Parties, according to an assessment of Sixth National Reports conducted by NatureServe.[17] This seems to be partly due to the delayed identification of global indicators for the Aichi Biodiversity Targets after their adoption. Also, Parties mostly used their own indicator methodologies, thereby making it difficult to aggregate collective national progress to determine global progress. For the global assessments of progress towards the Aichi Biodiversity Targets, indicator results have been compiled with the assistance of the Biodiversity Indicators Partnership.

The notion of a list of "headline" indicators for use by Parties in their national reports for reporting on their implementation of the post-2020 global biodiversity framework has been raised on various occasions during the development of the post-2020 global biodiversity framework. This idea was further explored in information document CBD/SBSTTA23/INF/3.[18] A proposed list of headline indicators is now available in documents CBD/SBSTTA/24/3[19] and CBD/SBSTTA/24/3Add.1[20] with suggested recommendations for Parties to use headline indicators in their national reports, along with additional indicators (component and complementary indicators) as appropriate and according to national circumstances. A brief analysis linking suitable and available indicators with the proposed headline indicators is provided in Annex 3.

An internationally agreed set of headline indicators could help prioritise efforts to ensure consistency in methodology and data collection processes to enable aggregation from national to global scale. Agreement on a set of headline indicators that are quantitative, consistent and comparable across countries could help achieve greater transparency and measurability between global and national targets. This could also allow a cumulative assessment of the responses taken across countries and their impacts on outcomes to identify whether national commitments and implementation are on track to meet the post-2020 global biodiversity targets and goals.[21] Importantly, it could also enable the identification of priority capacity and resource needs to support implementation of the post-2020 global biodiversity framework.

2.6 Indicators that are used to measure progress towards other conventions and intergovernmental processes

The post‑2020 global biodiversity framework is intended to be a universal framework and it is highly preferable that the indicators used in the framework are useful across biodiversity-related conventions and intergovernmental processes, including the 2030 Agenda for Sustainable Development. This will enable consistent messaging and reduce costs and the reporting burden placed on Parties. UNEP-WCMC assessed the suitability of all available indicators proposed via peer review (see section 3 of this document) and recorded whether available indicators are being used in the SDG global indicator framework, other conventions and intergovernmental processes (e.g. IPBES). The results from this assessment demonstrate that out of 155 available and suitable indicators for the draft goals and targets (Annex 1 and 2), 64 are being used to monitor progress towards SDGs, and 39 are being used for other conventions or intergovernmental processes. Drawing on indicators from across conventions and intergovernmental processes could help to

[16] Decision XIII/28
[17] Bhatt, R et al. (2020) Analysis of the Use of Indicators in the 6th National Reports for the Secretariat of the Convention on Biological Diversity. NatureServe Technical Report for the Secretariat of the Convention on Biological Diversity. Arlington, Virginia.
[18] CBD/SBSTTA23/INF/3
[19] CBD/SBSTTA/24/3
[20] CBD/SBSTTA/24/3Add.1
[21] CBD/SBSTTA23/INF/3

reduce the reporting burden and promote the effective use of resources at all scales for the monitoring of progress towards the post-2020 goals and targets.

2.7 Gender considerations

Submissions from Parties and relevant stakeholders on the scope and content of the post-2020 framework have frequently stated the importance of effectively addressing gender considerations in the post-2020 framework[22] and this important consideration is reflected in Decision 14/34,[23] which states that efforts should be made to advance the collection, analysis and use of gender-sensitive data, including data disaggregated by sex.[24] A number of gender-specific indicators were proposed by UN Women and other stakeholders via peer review, including indicators currently available from the SDG indicator framework that could be used to monitor progress towards key elements of a proposed gender-specific target.[25] As suggested by several stakeholders, a practical way to mainstream gender across the framework would be to disaggregate relevant indicators across the monitoring framework by sex when feasible.[26]

2.8 Indigenous and local knowledge considerations

In Decision XIII/28, the CBD COP adopted four indicators to measure progress towards Aichi Target 18.[27]There has been little progress towards their operationalization.[28] As suggested in submissions from peer review, a technical process may assist with further developing these indicators so that they are operational by COP16. This is in line with Decision14/17[29] to consider the development of a fully integrated programme of work on Article 8(j) and related provisions within the post-2020 biodiversity framework.

Submissions from Parties and observers have suggested that the post-2020 framework should integrate biological and cultural diversity in a way that avoids a dichotomy between nature and culture, in line with the recommendations of the global dialogue for IPLCs on the post-2020 framework.[30] This can be done by including cross-cutting indicators that acknowledge sub-national and local community levels under various goals and targets, and disaggregating data by IPLCs (population group). For example, indicators of resilience developed in the context of Socio-ecological Production Landscapes[31] and the Arctic Social Indicators[32] follow this approach.

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[22] CBD/WG2020/1/INF/1
[23] Decision 14/34
[24] Decision 14/18

[25] CBD/SBSTTA/23/INF/17
[26] UN Women (Notification 2019-075), CBD/WG2020/1/INF/1 and submissions in response to Notification 2020-045 from UN Women, CBD Women Caucus, Society of Ecological Restoration, Avaaz, Global Youth Biodiversity Network, CGIAR, CIAT, IUCN, Alianza Mexicana para la Biodiversidad, IIED, ICCA Consortium, Africa Civil Society Organizations and Biodiversity Alliance.
[27] Decision XIII/28, Target 18 - By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels
[28] CBD/SBI/3/2/Add.4

[29] Decision 14/17
[30] CBD/POST2020/WS/2019/12/2
[31] UNU-IAS (2013) Indicators of Resilience in Socio-ecological Production Landscapes, Policy Report. Available at: www.bioversityinternational.org/fileadmin/user_upload/online_library/publications/pdfs/Indicators_of_Resilience_in_Socio-ecological_Production_Landscapes__SEPLs__1676.pdf
[32] Nordic Council of Ministers (2015) Arctic Social Indicators: ASI II: Implementation. Available at: http://norden.diva-portal.org/smash/record.jsf?pid=diva2%3A789051&dswid=4203

2.9 Emerging indicators using remote sensing and novel technology

There are ongoing efforts that involve the use of emerging technologies and remote sensed data flows to generate indicators of various attributes of relevance to the monitoring framework. A number of these technology driven indicators should become available during 2021, and offer the potential of regular updates (e.g. annual), global fine scale coverage (down to 10 metre resolution), addressing various ecosystems and threat elements of the monitoring framework.

3. AVAILABLE INDICATORS FOR THE POST-2020 FRAMEWORK

3.1 Methodology used for identifying available indicators

The CBD Secretariat issued an open invitation (notification 2020-045) for Parties and observers to participate in the peer review of three draft documents related to Agenda Item 3 (Post-2020 global biodiversity framework) in preparation for SBSTTA 24.[33] UNEP-WCMC reviewed all submissions relating to the 'Draft monitoring framework for the post-2020 global biodiversity framework' and the 'Information Document on indicators for the post-2020 global biodiversity framework'.[34]

All indicator-specific comments from submissions were recorded with the objective of identifying available indicators and assessing their suitability for monitoring progress towards specific components of the draft goals and targets. If conflicting information was provided in different submissions regarding a specific indicator, data was confirmed by contacting the indicator provider, or in the case of SDG indicators by checking the indicator metadata and database.[35] Indicator proposals from Parties and observers were mapped to goal and target components based on the details provided within their original submissions. Indicator proposals were organised under four categories:

- Gap filling – indicator suggestions for a monitoring element where indicators were missing in the draft monitoring framework
- New indicators – alternative indicator suggestions that were not included in the draft monitoring framework or information document
- Modification of an indicator – suggestions for updating the wording or data of specific indicators
- Deletion of indicator – where a comment suggested removing an indicator that was proposed in the monitoring framework or the information document

Indicators were then further organised following a decision tree process (see Annex 4), and for those indicators suitable for assessment the following data was compiled through internet searches:

- The responsible institution
- Whether indicators are currently available, or are under development
- Tentative year of availability for indicators under development
- Year of last update of available indicators
- Time series and frequency of updates
- Whether the methodology was available for national use

[33] Notification 2020-045. For Agenda Item 3 draft documents, review guidelines and submission templates see www.cbd.int/sbstta24/review.shtml
[34] www.cbd.int/conferences/post2020/submissions/2020-045
[35] https://unstats.un.org/sdgs/metadata, https://unstats.un.org/sdgs/indicators/database/

- Whether data collection occurs at the global scale, and data can be disaggregated for national use
- Whether data are collected at the national level (e.g. by national statistic offices) and can be aggregated to form a global indicator
- Whether the indicator is an official SDG indicator
- Whether the indicator is used in other conventions or intergovernmental processes (e.g. IPBES)

On completion, available indicators identified were assessed for their suitability for monitoring progress toward the specific goals and targets for which they were proposed.

3.2 Methodology used to assess the suitability of available indicators

A total of 399 unique indicators were identified and assessed. The methodology used to assess indicator suitability is a published methodology developed by Tittensor *et al*. (2014),[36] which was also used by Chenery *et al.* (2015)[37] and Mcowen *et al*. (2016)[38] to assess indicators for the Aichi Biodiversity Targets. This methodology provides a clear and transparent means to directly compare indicators in a consistent manner. The methodology enabled indicator assessment under the following three criteria:

- **Alignment:** how well the indicator aligns to the text of the relevant monitoring element
- **Temporal relevance:** Number of data points available for the period 2010-2020
- **Spatial coverage:** Number of countries and continents for which data is available

Each indicator assessed was given a score from 1-3 for each criterion, 3 being high/good, 2 being medium/moderate, and 1 being low/poor. The scoring thresholds applied to each of the three criteria are presented in Table 1 below. The combined score for each indicator assessed was calculated by bringing together the individual scores for the three criteria, giving a maximum score of 9.

Table 1. *Scoring thresholds applied for each criteria of the assessment of suitability*

Score	Alignment to monitoring element	Temporal relevance	Spatial coverage
High/Good (3 points)	As defined by Tittensor et al. (2014)	Total of ≥5 data points available for 2010-2020	'Good', as defined by Tittensor et al. (2014): • 5 + continents (>20 countries total)
Medium/ Moderate (2 points)	As defined by Tittensor et al. (2014)	3-4 data points are available between 2010-2020	'Moderate', as defined by Tittensor et al. (2014): • 3-4 continents (>10 countries total); • 5 + continents (<20 countries total)

[36] Tittensor, D P et al. (2014) A mid-term analysis of progress toward international biodiversity targets. Science, 346:6208, pp 241-244. Available at: https://science.sciencemag.org/content/346/6206/241
[37] UNEP/CBD/ID/AHTEG/2015/1/INF/1/REV1
[38] Mcowen, C J et al. (2016) Sufficiency and Suitability of Global Biodiversity Indicators for Monitoring Progress to 2020 Targets. Conservation Letters, 9:6, pp 489-494. Available at: https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/conl.12329

Low/Poor (1 point)	As defined by Tittensor et al. (2014)	≤2 data points are available between 2010-2020	'Poor', as defined by Tittensor et al. (2014): • 1-2 continents (no matter how many countries); • 3-4 continents (<10 countries total)
Unknown	N/A - all "available" indicators were assessed for alignment	Number of data points could not be validated e.g., data could not be accessed/was not publicly available, nor provided by institution responsible for indicator	Spatial coverage could not be accessed/validated e.g., data could not be accessed/ were not publicly available and no further information was provided by institution responsible for indicator

Alignment scoring process

Alignment scoring is a qualitative process and reliant on assessors' personal interpretation of the monitoring elements/components. The following steps were followed to limit the degree of subjectivity involved in the assessment of this criterion:

1. Each indicator was assessed for alignment by two reviewers from UNEP-WCMC with relevant expertise in the theme/topic covered by the specific indicator
2. The two reviewers allocated independent alignment scores based on their interpretation of the monitoring element and their understanding of the indicator parameters. A brief justification was provided alongside each allocated score to explain the assessor's decision
3. The two alignment scores and justifications were reviewed by UNEP-WCMC's Chief Scientist and a final score allocated along with a final justification/explanation

Spatial and temporal coverage scoring process

The allocation of temporal and spatial coverage scores entailed the following steps:

1. Information that was compiled from peer review submissions was reviewed
2. Further data was collected on number of data points to assess temporal coverage and number of countries/continents that data are available for to assess spatial coverage
3. Quantitative scores were recorded in the assessment database alongside resources uses to aid the scoring process (e.g. weblinks to data and other relevant information)

Available versus under development indicators

Only available indicators were assessed as the methodology is not applicable to indicators under development (i.e. not currently available). There are several promising indicators under development that will make use of real-time data, but these could not be assessed at this time. The "available today" versus "under development" categorisation does not directly equate to the tier classification of SDG indicators.[39] As such, to ensure consistency in the assessment of SDG and non-SDG indicators, SDG indicators were

[39] https://unstats.un.org/sdgs/iaeg-sdgs/tier-classification/

only marked as available and therefore assessed, if data could be accessed via the SDG indicator website.[40] A low/poor temporal score with an "unknown" justification was recorded in cases where the data seemed to exist but could not be accessed/verified on the SDG indicator website. An SDG indicator was marked as “under development” (and therefore excluded from analysis) in cases where a recently published meta-datasheet (e.g. published in 2020) stated that data collection was anticipated to take place soon.

3.3 Suitable indicators for the draft goals and targets

The output from the suitability assessment is a list of high scoring and medium scoring indicators that are suitable for monitoring progress towards goals and targets (Annex 1). All of these indicators currently exist (available now), are “championed” by a responsible institution, and have a high likelihood of continued production in the period after 2020.

For each component of the draft goals and targets, indicators that scored between 7 and 9 (maximum score) in the assessment were considered “high scoring” and included in the final table (Annex 1). Indicators that scored between 5 and 6 were also included as these indicators were well-aligned, relevant and in some cases could potentially fill indicator gaps. An indicator gap was recorded where no indicators scored between 5-9. Due to the methodology used, there are a number of duplicates within Annex 1 as the same indicator may provide a means of monitoring progress towards multiple monitoring components and may score high in one area but medium in another. Furthermore, there are a few “multipurpose” indicators that can be disaggregated (e.g. by habitat, taxonomy), to report against various specific components of goals and/or targets.

In total, 155 indicators[41] were identified that are suitable for use to monitor progress towards the draft goals and targets (Annex 2). Furthermore, many of them also feature in the list of proposed headline indicators for the post-2020 global biodiversity framework[42] or can be useful sources of data to feed into specific proposed headline indicators (Annex 3).

3.4 Gaps in the current suite of indicators available for the post-2020 framework

The assessment of available indicators for the draft monitoring framework, with its 4 goals and their 14 components, and 20 targets and their 68 components, resulted in five target components having a gap of no high or medium suitability score indicators:

2.7. Integration into landscape and seascape context

3.2. Reduced human-wildlife conflicts

5.5. Eradication, control or management of IAS in priority sites

6.2. Reduction of pollution from biocides

19.4. Availability of research and knowledge, including traditional knowledge, innovations and practices of indigenous peoples and local communities with their free, prior and informed consent

Three goal components and twelve target components had an indicator gap of no high scoring indicators, but they do have one or more medium scoring indicators (Annex 1).

[40] https://unstats.un.org/sdgs/metadata/ and https://unstats.un.org/sdgs/indicators/database/
[41] 155 indicators discounting RLI and LPI sub-indicators/disaggregations. Otherwise, 174 if counting all RLI and LPI sub-indicators
[42] CBD/SBSTTA/24/3 (Annex 1)

Two goals and eleven targets have one or more components with a gap of no high scoring indicators, as illustrated in Table 2 below.

Table 2. *Percentage and number of components of each goal and target with indicator gaps due to no indicators with a high suitability score*.

Goal or Target	**Percentage and number of components of each goal and target with indicator gaps due to no indicators with a high suitability score** (Green = 0%; Orange < 50%; Red ≥50%)
A	0% (0 of 6)
B	0% (0 of 3)
C	100% (2 of 2)
D	33% (1 of 3)
T 1	0% (0 of 5)
T 2	14% (1 of 7)
T 3	50% (1 of 2)
T 4	33% (1 of 3)
T 5	20% (1 of 5)
T 6	75% (3 of 4)
T 7	0% (0 of 2)
T 8	0% (0 of 2)
T 9	0% (0 of 3)
T 10	33% (1 of 3)
T 11	50% (1 of 2)
T 12	67% (2 of 3)
T 13	0% (0 of 3)
T 14	0% (0 of 3)
T 15	0% (0 of 3)
T 16	0% (0 of 4)
T 17	0% (0 of 2)
T 18	40% (2 of 5)
T 19	50% (2 of 4)
T 20	67% (2 of 3)

There are many reasons why gaps in availability of suitable indicators exist for the draft post-2020 monitoring framework. One reason is that the proposed indicators have low suitability for the purpose of measuring progress towards a target or goal. For example, nine indicators were proposed via peer review for Target 13, but eight of them scored low for one or more of the suitability criteria of alignment, temporal relevance or spatial coverage. Another reason for an indicator gap can be that no or very few indicators are currently available.

For some topics in the post-2020 global biodiversity framework there may be indicator gaps because they are new issues or dimensions not yet fully reflected in international processes, and so indicators and data sets with custodian agencies have not yet been developed at a global scale. Examples of such topics include Target 6.3 (Reduction of pollution from plastic), and Target 11.1 (Access to green/blue spaces). In a few cases the lack of suitable indicators may be because the subject of a Target is difficult to define in a measurable form, and particularly for measurement at the global scale.

The peer review of the draft monitoring framework has generated many proposals for available (existing) indicators and indicators under development that could be used to measure progress. Many of the indicators that did not score high in the suitability assessment (e.g. low scores in temporal and spatial coverage) could potentially be further developed to fill gaps in the draft monitoring framework. The assessment process also recorded the proposed indicators that are under development and which have not yet been published, or do not yet have sufficient data for use. This information will be a valuable resource for future work to fill indicator gaps.

4. BASELINES TO INFORM PROGRESS TOWARDS GOALS AND TARGETS IN THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Baselines set the context within which indicator trends can be evaluated and should be measurable and relevant to the desired goal or target outcome. Baselines can be set with reference to a directly observable record/state or can be inferred using models or proxies if direct observations are not possible.[43]

While the issue of baselines has not yet been substantively discussed in the context of the development of the post-2020 global biodiversity framework, various options and considerations have been expressed through submissions or interventions, including:

- **Pre-human disturbance**: Such a baseline might be relevant for some measures of the status of biodiversity, for instance using a baseline of potential natural vegetation.[44] This baseline relies on the use of proxies or inference from models. Proxies might include the state of more intact ecosystems in the present, whilst models could be used to infer the potential state prior to human (direct or indirect) disturbance. Such models and layers of intactness are currently available at a global scale but include a high degree of uncertainty. Setting up a pre-human disturbance baseline would allow for the consideration of the history and context of a given region, although the uncertainties inherent in modelling potential states of natural vegetation at national level are high and such a baseline would only be relevant for a relatively small number of the draft goals and targets.
- **Pre-industrial (e.g. around 1750):** Most global impacts on biodiversity have occurred since industrialisation. A pre-industrial baseline could be difficult to measure as such historical data are not available for most indicators and those that do contain a greater level of uncertainty than more recent data-points. Such baselines could be inferred as above, and although levels of uncertainty remain significant, available global datasets could be supplemented with national data on habitats or land use. As above, such a baseline would only be relevant for a relatively small number of the draft goals and targets.

[43] UNEP/CBD/SBSTTA/9/10

[44] Ministry of Foreign Affairs of Brazil (2013) Submission of views on possible targets, indicators and baselines for the post-2020 biodiversity framework. See: www.cbd.int/api/v2013/documents/2478769B-D32A-CBFE-1936-4D2895EF9F61/attachments/Brazil-3.pdf

- **1970:** A 1970 baseline has been used in the IPBES Global Assessment Report on Biodiversity and Ecosystem Services and other recent assessments. The last 50 years has seen a global intensification of agricultural practices, harvesting and trade of resources and urbanisation, caused by technological changes and expanding global population and consumption. Although most indicators based on remote sensing are not able to provide data back to 1970, sufficient data exists to measure some indicators from a 1970 baseline.
- **Recent:** More recent baselines may also be considered. For example, these could be linked to events such as the adoption of the CBD, or the year 2000 (representing a new millennium and two decades to 2020), or the year 2010 relating to progress towards the 2010 target and the year of the adoption of the Strategic Plan for Biodiversity 2011-2020. In relation to trends, the most data-rich baselines are the periods between 2000, 2010, and 2020. This includes data that is more widely available across regions and taxonomic groups, and data-points with lower levels of uncertainty. However, a recent baseline would de-emphasise the significant changes to biodiversity that have occurred prior to the current century.
- **2020:** A current-day baseline (or recent trends during the most recent decade) would allow efforts to be focused on the improvement of the recent and existing state of indicators. It emphasizes recovery and removes the requirement to estimate historical states. However, a 2020 baseline, as with the 2000 baseline, de-emphasises the trends in biodiversity and responses prior to this date, and due to the lag-time in reporting and compilation, many data are not yet available for the assessment of 2020 baselines.

5. TRACKING PROGRESS TOWARDS THE GOALS AND TARGETS OF THE POST-2020 FRAMEWORK

As part of the overall monitoring framework for the post-2020 global biodiversity framework, a robust and comprehensive means of tracking progress in as near real time as possible will be crucial to help Parties understand where additional efforts, resources and capacity may be required. Ongoing tracking of progress will enable Parties to proactively prioritize action and promote adaptive management to accelerate implementation towards the adopted goals and targets of the post-2020 global biodiversity framework.

At present much information on progress towards global goals and targets is scattered across multiple sources and irregularly updated. No single platform currently exists that brings together the information needed to provide an ongoing assessment of progress towards global biodiversity targets in an accessible and visually compelling way. Efforts are therefore underway to explore a target tracking tool that could take the form of an online data platform, displaying progress towards the post-2020 goals and targets at global, regional and national levels. Such a tool would also assist those who wish to explore national level data and its availability.

To provide a regularly updated status of progress towards the targets, such a tool will need to draw upon updates of global, regional, and national indicators from a range of indicator data sources from many institutions including those within the Biodiversity Indicators Partnership and where possible also benefit from national reporting data showcasing national contributions to the global targets. Capacity building efforts and significant additional resources will be needed to further enhance data collection and data management at the national level.

6. FINAL REMARKS AND CONCLUSIONS

The development of a post-2020 monitoring framework presents an opportunity for enhanced approaches towards monitoring, reporting and review, which are essential elements for the successful implementation

of the future global biodiversity framework. The development of the monitoring framework for the post-2020 global biodiversity framework is able to benefit from the lessons derived from monitoring progress under the Strategic Plan for Biodiversity 2011-2020, the 2030 Agenda, and other processes.

An analysis of suitable indicators for use in the monitoring framework for the post-2020 global biodiversity framework has identified 155 available indicators that are well-aligned with the proposed goals and targets. However, key indicator gaps in some goals and targets remain. Additional work is required to identify and/or develop suitable indicators to fill these gaps.

When considering the future use of indicators to track progress in the implementation of the post-2020 global biodiversity framework, Parties may wish to reflect on the following:

- **Wording of goals and targets:** Measurability (quantitative or qualitative) of goals and targets remains key to the identification of suitable indicators for the monitoring framework, and the specific wording of goals and targets is important in this regard.
- **Criteria for indicator selection:** Indicator selection requires careful consideration of criteria around data availability (spatial and temporal), robust and transparent methodology, global and national suitability, and alignment with goals and targets. Annex 1 of this document may serve as a useful resource, as all indicators have been assessed on this basis.
- **Alignment with other processes:** Identifying indicators which can align with other relevant reporting processes including the 2030 Agenda and its Sustainable Development Goals, biodiversity-related conventions and other intergovernmental processes remains a priority, both for consistency and cost-effectiveness.
- **Headline indicators:** Establishment of a set of headline indicators can support consistent national reporting on the implementation of the post-2020 global biodiversity framework and enhance transparency and measurability between global and national targets. The analyses presented in this document show that there are many suitable indicators that can be disaggregated to national level or are otherwise aggregated from national data and could therefore be considered as proposed headline indicators or replace those that are not yet operational (CBD/SBSTTA/24/3).
- **Component and complementary indicators**: Any future selection of indicators for the two further proposed groups of ‘component’ and ‘complementary’ indicators to support the suite of headline indicators (CBD/SBSTTA/24/3Add.1) can be underpinned by the scientifically rigorous methodology applied in the analysis presented in this document.
- **Indicators under development:** While the analysis presented in this document has focused on the current availability of indicators, the peer review process has also highlighted several promising indicators under development especially those relying on remotely sensed near-real time data which, once available for use, would complement those already available. In this respect, flexibility of the evolving monitoring framework to accommodate new and more suitable indicators will be important.
- **Development and support of institutional capacity** at national level to provide up-to-date and timely information is necessary for ensuring sustainable delivery of the necessary indicators.
- **Data disaggregation:** Opportunities for deriving disaggregated data from indicators (e.g. geospatial, sex, population group and age) for the framework need further investigation.
- **Indicator baselines:** The availability of data from suitable indicators may be useful in supporting the selection of baselines across the indicator suite.
- **Tracking progress:** Bringing together indicator information into a single tool to help track progress in an accessible and visually compelling way will assist Parties to proactively prioritise action and promote adaptive management to accelerate implementation towards the adopted goals and

targets of the post-2020 global biodiversity framework. Such an approach would also allow for ongoing global “stocktaking” of progress.

As the draft monitoring framework further develops during 2021, updated versions of the analyses presented in this document and its annexes will be made available as a resource for Parties and observers.

Annex 1

Available and suitable indicators for the draft post-2020 monitoring framework

High scoring indicators (9-7 score) in black text - *denotes maximum score (9 out of 9), Medium scoring indicators (6-5 score) in red text (well-aligned and relevant to the goal component)

Goal	Goal text	Proposed headline indicators	Component text	Highest Scoring Indicators	Global indicator can be disaggregated for national use	National data are aggregated to form global indicator	SDG Indicator	Used in other Conventions or processes
A	The area, connectivity and integrity of natural ecosystems increased by at least [X%] supporting healthy and resilient populations of all species while reducing the number of species that are threatened by [X%] and maintaining genetic diversity 2030 Milestones i) The area, connectivity and integrity of natural ecosystems increased by at least [5%] ii)	A.0.1 Extent of selected natural ecosystems (forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats) A.0.2 Living Planet Index A.0.3 Red list index A.0.4 Species habitat index A.0.5 The proportion of populations maintained within species	**A.1.** *Increased extent of natural ecosystems (terrestrial, freshwater and marine ecosystems)*	Change in the extent of water-related ecosystems over time*	Y	Y	6.6.1	Y
				Forest area as a percentage of total land area	Y	Y	15.1.1	
				Live Cover via Vegetation Continuous Fields	Y			
				Tree cover loss	Y			
				Trends in mangrove extent	Y	Y	6.6.1	Y
				Biodiversity Habitat Index	Y			Y
				Continuous Global Mangrove Forest Cover	Y			-
				Live coral cover	Y			
				Water Turbidity and an estimate of Trophic State Index	Y			Y
			A.2. *Ecosystem integrity and connectivity (terrestrial, freshwater and marine ecosystems)*	Global trends in mangrove forest fragmentation*	Y			
				Relative Magnitude of Fragmentation*	Y			
				Species Habitat Index*	Y			Y
				Forest area as a percentage of total land area	Y	Y	15.1.1	

Goal	Goal text	Proposed headline indicators	Component text	Highest Scoring Indicators	Global indicator can be disaggregated for national use	National data are aggregated to form global indicator	SDG Indicator	Used in other Conventions or processes
	The number of species that are threatened is reduced by [X%] and the abundance of species has increased on average by [X%]			Forest Landscape Integrity Index	Y			
				Global Vegetation Health Products - Vegetation Health Index	Y			
				Living Planet Index - Forest Specialists	Y			-
				Ocean Health Index	Y			Y
				Red List Index (forest-dependent species)	Y			
				Red List Index (marine species)	Y			
				Red List Index (wetland species)	Y			
				Tree cover loss	Y			
				Water Turbidity and an estimate of Trophic State Index	Y		6.6.1	
				Change in the extent of water-related ecosystems over time	Y	Y	6.6.1	
				Progress towards sustainable forest management	Y	Y	15.2.1	
			A.3. *Prevent extinction and improve the conservation status of species*	Percentage of threatened species that are improving in status according to the Red List*	Y			
				Red List Index*	Y		15.1.1	Y
				EDGE Index	Y			
				Species Protection Index	Y			Y
			A.4. *Increase the population and health of species*	Changes in plankton biomass and abundance*	Y			Y
				Living Planet Index*	Y			Y
				Species Habitat Index	Y			Y

Goal	Goal text	Proposed headline indicators	Component text	Highest Scoring Indicators	Global indicator can be disaggregated for national use	National data are aggregated to form global indicator	SDG Indicator	Used in other Conventions or processes
			A.5. *Maintain Genetic diversity*	Number of plant and animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities*	Y	Y	2.5.1	
				Red List Index (wild relatives of domesticated animals)*	Y			
				In situ and ex situ records-based index of within-species genetic diversity	Y	Y		
			A.6. *Protection of critical ecosystems*	Average proportion of KBAs covered by protected areas*	Y	Y	14.5.1, 15.1.2,15.4.1	Y
				Protected area coverage*	Y	Y	14.5.1, 15.1.2,15.4.1	Y
				Species Protection Index*	Y			Y
				Number and hectares of UNESCO-designated sites (natural and mixed World Heritage sites and Biosphere Reserves)	Y	Y		Y
				Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	Y	Y	15.1.2	
				Coverage of other effective area-based conservation measures	Y	Y		
				Number of Wetlands of International Importance	Y	Y		Y
B	Nature's contributions to people have been valued, maintained or	B.0.1 Population benefiting from ecosystem services B.0.2 Value of all	***B.1.*** *Nature's regulating contributions including climate regulation,*	Trends in mangrove extent	Y	Y	6.6.1	
				Progress towards sustainable forest management	Y	Y	15.2.1	
				Red List Index (pollinating species)	Y			

Goal	Goal text	Proposed headline indicators	Component text	Highest Scoring Indicators	Global indicator can be disaggregated for national use	National data are aggregated to form global indicator	SDG Indicator	Used in other Conventions or processes
	enhanced through conservation and sustainable use, supporting the global development agenda for the benefit of all people 2030 Milestones i) Nature contribute to the sustainable nutrition and food security, access to safe drinking water and resilience to natural disasters for at least [X] million people ii) Nature is valued through green investments, ecosystem service valuation in national accounts, and public and private sector financial disclosure	final ecosystem services (Gross Ecosystem Product)	*disaster prevention and others*	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	Y	Y	6.4.2	
				Species Habitat Index	Y	-		Y
			B.2. *Nature's material contributions including food, water and others*	Forestry Production & Trade (Wood Fuel)	Y	Y		
				Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	Y	Y	6.4.2	
				Proportion of fish stocks within biologically sustainable levels	Y	Y	14.4.1	Y
			B.3. *Nature's non-material contributions including cultural*	Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities	Y	Y	11.7.1	
				Number of formal and non-formal education programmes transmitting spiritual and cultural values in the UNESCO World Network of Biosphere Reserves		Y		

Goal	Goal text	Proposed headline indicators	Component text	Highest Scoring Indicators	Global indicator can be disaggregated for national use	National data are aggregated to form global indicator	SDG Indicator	Used in other Conventions or processes
C	The benefits, from utilization of genetic resources are shared fairly and equitably 2030 Milestones i) Access and benefit sharing mechanisms are established in all countries ii) Benefits shared increased by [x%]	C.0.1 Amount of monetary benefits (in United States dollars) received by countries from utilization of genetic resources as a result of an ABS agreement, including traditional knowledge C.0.2 Number of research and development results or publications shared as a result of an ABS agreement	***C.1*** *Access to Genetic resources*	Total number of internationally recognized certificates of compliance published in the ABS Clearing-House		Y		
			C.2. *Sharing of the benefits*	Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits	Y	Y	15.6.1	Y
D	Means of implementation is available to achieve all goals and targets the Framework 2030 Milestones i) By 2022, means to implement the Framework for the period 2020 to 2030 are identified or	D.0.1 Index of coverage of national biodiversity strategies and action plans with formal processes for ensuring that women, indigenous and local communities and youth are engaged and which capture	***D.1.*** *Availability of sufficient financial resources*	Official development assistance on conservation and sustainable use of biodiversity; and (b) revenue generated and finance mobilized from biodiversity-relevant economic instruments	Y	Y	15.a.1	
				Amount of biodiversity-related philanthropic funding	-	Y		
				Finance mobilised from domestic public expenditure for biodiversity-positive actions		Y		
				Total public expenditure per capita on the preservation, protection and conservation of natural heritage	Y	Y	11.4.1	Y

Goal	Goal text	Proposed headline indicators	Component text	Highest Scoring Indicators	Global indicator can be disaggregated for national use	National data are aggregated to form global indicator	SDG Indicator	Used in other Conventions or processes
	committed By 2030, means to implement the Framework for the period 2030 to 2040 are identified or committed	means of implementation D.0.2 National funding for implementation of the Global Biodiversity Framework		Proportion of total research budget allocated to research in the field of marine technology	Y	Y	14.A.1	
				Volume of official development assistance flows for scholarships by sector and type of study	Y	Y	4.b.1	
				Total amount of funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies	Y	Y	17.7.1	
			D.2. *Sufficient capacity building, technology transfer and scientific cooperation*	Proportion of total research budget allocated to research in the field of marine technology	Y	Y	14.a.1	
				Number of international, regional and bilateral programmes and initiatives for disaster risk reduction-related capacity-building in developing countries	Y	Y		Y
				Volume of official development assistance flows for scholarships by sector and type of study	Y	Y	4.b.1	
			D.3. *Access to technology*	Global imports of ICT goods as presented by bilateral trade flows by ICT goods categories	Y			

High scoring indicators (9-7 score) in black text - *denotes maximum score (9 out of 9), Medium scoring indicators (6-5 score) in red text (well-aligned and relevant to the target component)

Target	Target text	Proposed headline indicators	Component text	Highest Scoring Indicators	Global indicator can be disaggregated for national use	National data are aggregated to form global indicator	SDG Indicator	Used in other Conventions or processes
1	*By 2030, [50%] of land and sea areas globally are under spatial planning addressing land/sea use change, retaining most of the existing intact and wilderness areas, and allow to restore [X%] of degraded freshwater, marine and terrestrial natural ecosystems and connectivity among them*	*1.0.1 Percentage of land covered by landscape scale land-use plans for terrestrial, freshwater and marine ecosystems*	***1.1.** Increase in area of terrestrial, freshwater and marine ecosystems under spatial planning*	Coverage of protected areas in relation to marine areas	Y	Y	14.5.1	
				Forest area with long-term forest management plans	Y	Y	15.2.1	
				Agricultural land area (% of total land area)	Y	Y		
				Degree of integrated water resources management	-	Y	6.5.1	
			***1.2.** Prevention of reduction and fragmentation of natural habitats due to land/sea use change*	Agricultural land area (% of total land area)*	Y	Y		
				Change in the extent of water-related ecosystems over time*	Y	Y	6.6.1	Y
				Forest area as a percentage of total land area*	Y	Y	15.1.1	Y
				Species Habitat Index*	Y			Y
				Proportion of land that is degraded over total land area*	Y	Y	15.3.1	
				Annual Tropical Primary Tree Cover Loss	Y			
				Forest Landscape Integrity Index	Y			
				Living Planet Index - Forest Specialists	Y			-
				Mountain Green Cover Index	Y	Y	15.4.2	
				Percentage of cropped landscapes with at least 10% natural or semi-natural vegetation within 1km	Y			
				Red List Index (forest-dependent species)	Y			
				Tree Cover Loss	Y			

				Trends in mangrove extent	Y	Y	6.6.1	Y
				Ecosystem Intactness Index	Y			
				Mean Species Abundance	Y			Y
				Biodiversity Habitat Index	Y			Y
				Continuous Global Mangrove Forest Cover	Y			
				Live coral cover	Y			
				Ocean Health Index	Y			Y
				Freshwater/wetland dependent Living Planet Index	Y			
				Red List Index (Marine species)	Y			Y
			1.3. *Priority retention of intact / wilderness areas*	Biodiversity Intactness Index	Y			Y
				Cumulative human impacts on marine ecosystems	Y			
				Ecosystem Intactness Index	Y			
				Mean Species Abundance	Y			Y
			1.4. *Restoration of degraded ecosystems*	Change in the extent of water-related ecosystems over time	Y	Y	6.6.1	Y
				Ocean Health Index	Y			Y
				Proportion of land that is degraded over total land area	Y	Y	15.3.1	Y
			1.5. *Maintenance and restoration of connectivity of natural ecosystems*	Forest Landscape Integrity Index	Y			
				Living Planet Index for Freshwater Migratory Fish	Y			
				Protected Connected indicator	Y			
				Red List Index (migratory species)	Y			
2	*By 2030, protect and conserve through well connected and effective system*	*2.0.1 Protected area coverage of important biodiversity areas*	***2.1.*** *Area of terrestrial, freshwater and marine ecosystem under*	Protected area coverage*	Y	Y	15.1.2. 15.4.1, 14.5.1	Y
				Coverage of protected areas in relation to marine areas*	Y	Y	14.5.1	

	of protected areas and other effective area-based conservation measures at least 30% of the planet with the focus on areas particularly important for biodiversity	*2.0.2 Species Protection Index*	*protection and conservation*	Coverage by protected areas of important sites for mountain biodiversity	Y	Y	15.4.1	
				Progress towards sustainable forest management	Y	Y	15.2.1	
				Coverage of other effective area-based conservation measures	Y	Y		
			2.2. *Areas of particular importance for biodiversity are protected and conserved as priority*	Average proportion of KBAs covered by protected areas*	Y	Y	14.5.1, 15.1.2, 15.4.1	Y
				Coverage of protected areas in relation to marine key biodiversity areas*	Y	Y	14.5.1	Y
				Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type*	Y	Y	15.1.2	
				Species Protection Index*	Y			Y
				Coverage by protected areas of important sites for mountain biodiversity	Y	Y	15.4.1	
				Number and hectares of UNESCO-designated sites (natural and mixed World Heritage sites and Biosphere Reserves)	Y	Y		Y
			2.3. *Representative system of protected areas and other effective area-based conservation measures*	Proportion of terrestrial, freshwater and marine ecological regions which are conserved by PAs or OECMs*	Y	Y	15.1.2	
				Species Protection Index*	Y			Y
				Protected Area Representativeness Index	Y			
			2.4. *Effective and equitable management of the system of protected areas and other effective area-based*	Protected Areas Management Effectiveness	Y	Y		
				Trends in protected area downgrading, downsizing and degazettement	Y			

			conservation measures					
			***2.5.** Connectivity within the system of protected areas and other effective area-based conservation measures*	Protected Connected indicator	Y			
				Protected Area Connectedness Index (PARC-Connectedness)	Y			Y
				Number of hectares of transnational and transboundary UNESCO-designated sites (natural and mixed World Heritage sites and Biosphere Reserves) (7)	Y	Y		
			***2.6.** Increased protection and conservation effectiveness*	Protected Areas Management Effectiveness	Y	Y		
			***2.7.** Integration into landscape and seascape context*					
3	*By 2030, ensure active management actions to enable wild species of fauna and flora recovery and conservation, and reduce human-wildlife conflict by [X%]*	*3.0.1 Protected areas management effectiveness* *3.0.2 Species recovery programmes*	***3.1.** Active recovery and conservation management actions*	Number of plant and animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities*	Y	Y	2.5.1	
				Proportion and number of threatened plant species held in ex situ conservation collections and available for reintroduction/restoration*	Y	Y		
				Comprehensiveness of conservation of socioeconomically as well as culturally valuable species	Y			
				Percentage of threatened species that are improving in status according to the Red List	Y			
				Protected Areas Management Effectiveness	Y	Y		
				Red List Index	Y		15.5.1	Y

			3.2. *Reduced human-wildlife conflicts*					
4	*By 2030, ensure that the harvesting, trade and use of wild species of fauna and flora, is legal, at sustainable levels and safe.*	*4.0.1 Proportion of traded wildlife that is legal and safe (not poached, illicitly trafficked or unsustainable)* *4.0.2 Proportion of fish stocks within biologically sustainable level*	***4.1.*** *Harvest is legal, sustainable and safe for human health and biodiversity*	MSC certified catch*	Y			Y
				Proportion of fish stocks within biologically sustainable levels*	Y	Y	14.4.1	Y
				Living Planet Index for utilised species	Y			-
				Red List of Species (Commercially Exploited Aquatic Species)	Y			
				Total catch of cetaceans under IWC	Y			Y
				Proportion of traded wildlife that was poached or illicitly trafficked	Y	Y	15.7.1, 15.c.1	Y
			4.2. *Trade is legal, sustainable and safe for human health and biodiversity*	Change in the [number/proportion] of CITES Parties with legislation in Category 1 under the National Legislation Project		Y		Y
				MSC certified Catch	Y			Y
				Proportion of traded wildlife that was poached or illicitly trafficked	Y	Y	15.7.1,15.c.1	Y
				Red List Index (internationally traded species)	Y			
			4.3. *Use is legal, sustainable and safe for human health and biodiversity*	Living Planet Index for utilised species	Y			-
				MSC certified catch*	Y			Y
				Red List Index (trends driven by fisheries)	Y			
				Red List Index (trends driven by utilisation)	Y			
5	*By 2030, manage, and where possible control, pathways for the introduction of IAS, achieving [50%]*	*5.0.1 Rate of invasive alien species spread* *5.0.2 Rate of invasive alien species impact*	***5.1.*** *Identification, control and management of pathways for introduction of invasive alien species*	Trends in the numbers of invasive alien species introduction events	Y			
				Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species	Y	Y	15.8.1	

	reduction in the rate of new introductions, and eradicate, control and manage IAS to eliminate or reduce their impacts, including in at least [50%] of priority sites		***5.2.** Effective detection, identification, prioritisation and monitoring of invasive alien species*	Number of invasive alien species in national lists as per Global Register of Introduced and Invasive Species*	Y	Y		Y
			***5.3.** Establishment of measures for eradication, control and management of invasive alien species*	Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species	Y	Y	15.8.1	
				Trends in invasive alien species vertebrate eradications	Y			
			***5.4.** Eliminated or reduced impacts of IAS*	Red List Index (impacts of invasive alien species)*	Y			
			***5.5.** Eradication, control or management of IAS in priority sites*					
6	*By 2030, reduce pollution from all sources, including reducing excess nutrients [by x%], biocides [by x%], plastic waste [by x%] to levels that are not harmful to biodiversity and ecosystem functions and human health*	*6.0.1 Proportion of water with good ambient water quality (freshwater and marine)* *6.0.2 Plastic debris density* *6.0.3 Pesticide use per area of cropland* *6.0.4 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal solid*	***6.1.** Reduction of pollution from excess nutrients*	Trends in Nitrogen Deposition*	Y			Y
				Amount of pesticide use per hectare	Y			
				Nutrient balance	Y	Y		
				Trends in Loss of Reactive Nitrogen to the Environment	Y			
				Water Turbidity and an estimate of Trophic State Index	Y			Y
			***6.2.** Reduction of pollution from biocides*					
			***6.3.** Reduction of pollution from plastic*	Floating plastic debris density	Y		14.1.1b	

		waste generated by cities	***6.4.** Reduction of pollution from other sources*	Red List Index (impacts of pollution)	Y			
				Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment	-	Y	12.4.2	
7	*By 2030, increase contributions to climate change mitigation adaption and disaster risk reduction from nature-based solutions and ecosystems based approached, ensuring resilience and minimising any negative impacts on biodiversity*	*7.0.1 Total climate regulation services provided by ecosystems*	***7.1.** Increased biodiversity contribution to climate change mitigation, adaptation and disaster risk reduction*	Above-ground biomass stock in forest (tonnes/ha)		Y	15.2.1	Y
				Gross primary productivity	Y			
				Net primary productivity	Y	Y	15.3.1	
				Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	Y	Y	11.b.2, 13.1.3, 1.5.4	Y
				Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030	Y	Y	1.5.3, 11.b.1, 13.1.2	
				Forest Landscape Integrity Index	Y			
			***7.2.** Minimised negative impacts on biodiversity from any mitigation, adaptation and disaster risk reduction measures*	Number of international, regional and bilateral programmes and initiatives for the transfer and exchange of science, technology and innovation in disaster risk reduction for developing countries	Y	Y		Y
8	*By 2030, ensure benefits, including nutrition, food security, livelihoods, health and wellbeing, for people, especially for*	*8.0.1 Number of people using wild resources for energy, food or culture (including firewood collection, hunting and fishing, gathering, medicinal use, craft making, etc.)*	***8.1.** Sustainable management of aquatic wild species of fauna and flora, including fisheries*	Proportion of fish stocks within biologically sustainable levels*	Y	Y	14.4.1	Y
				Living Planet Index (LPI) for Migratory Freshwater Fish to cover diadromous fish	Y			-
				MSC Certified Catch	Y			Y
				Red List Index (albatrosses and large petrels)	Y			
				Red List Index (impacts of fisheries)	Y			

	the most vulnerable through sustainable management of wild species of fauna and flora.	*8.0.2 Percentage of the population in traditional employment*		Red List Index (species used for food and medicine)	Y			
				Spawning stock Biomass (related to commercially exploited species)	Y			
				Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing	-	Y	14.6.1	
				Marine Trophic Index	Y			Y
			8.2. *Sustainable management of terrestrial wild species of fauna and flora*	Red List Index (species used for food and medicine)	Y			
				Living Planet Index for utilised species	Y			-
				Number of plant genetic resources for food and agriculture secured in medium or long term conservation facilities	Y	Y	2.5.1.a	
				Species Habitat Index	Y			Y
				Volume of production per labour unit by classes of farming/pastoral/ forestry enterprise size	Y	Y	2.3.1	
9	*By 2030, support the productivity, sustainability and resilience of biodiversity in agricultural and other managed ecosystems through conservation and sustainable use of such ecosystems, reducing productivity*	*9.0.1 Proportion of agricultural area under productive and sustainable agriculture*	***9.1.*** *Sustainable management of agricultural biodiversity, including soil biodiversity, cultivated plants and farmed and domesticated animals and of wild relatives*	Changes in land productivity	Y	Y	15.3.1	
				Changes in SOC stocks	Y	Y	15.3.1	Y
				Number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities	Y	Y	2.5.1	
				Red List Index (pollinating species)	Y			
				Red List Index (wild relatives of domesticated animals)	Y			
				Comprehensiveness of conservation of socioeconomically as well as culturally valuable species	Y			
				Proportion of agricultural area under productive and sustainable agriculture	Y	Y	2.4.1	

	gaps by at least [50%].		***9.2.** Sustainable management of aquaculture*	Proportion of fish stocks within biologically sustainable levels	Y	Y	14.4.1	Y
			***9.3.** Sustainable management of all types of forests*	Progress towards sustainable forest management	Y	Y	15.2.1	
				Area of forest under sustainable management: total FSC and PEFC forest management certification	Y			Y
10	By 2030, ensure that, nature based solutions and ecosystem approach contribute to regulation of air quality, hazards and extreme events and quality and quantity of water for at least [XXX million] people.	10.0.1 Population living in areas with clean air and clean and accessible water 10.0.2 Ecosystems providing reduced coastal erosion, flood protection and other services)	***10.1.** Regulation of air quality*	Air emissions accounts	Y	Y		
			***10.2.** Regulation of hazards and extreme events*	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population	Y	Y	11.5.1	
			***10.3.** Regulation of freshwater quantity, quality, location and timing*	Change in the extent of water-related ecosystems over time	Y	Y	6.6.1	Y
				Proportion of river basins, in a country, where environmental flows are provided in accordance with the e-flow methodology of SDG indicator 6.4.2	Y	Y	6.4.2	
				Change in the extent of water-related ecosystems over time (Reservoir dynamics)	Y	Y	6.6.1	Y
				Change in water use efficiency over time	Y	Y	6.4.1	
				Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	Y	Y	6.4.2	
				Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management	Y	Y	6.b.1	
				Proportion of population using safely managed drinking water services	Y	Y	6.1.1	
11	*By 2030, increase benefits from*	*11.0.1 Average share of the built-up area of cities that is*	***11.1.** Access to green/blue spaces*	Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities	Y	Y	11.7.1	

	biodiversity and green/blue spaces for human health and well-being, including the proportion of people with access to such spaces by at least [100%], especially for urban dwellers	*green/bluespace for public use for all*	***11.2.** Contributions of biodiversity to human health and well-being*	Living Planet Index	Y			Y
				Red List Index	Y		15.5.1	Y
				Red List Index (pollinating species)	Y			
				Ocean Health Index	Y			Y
12	By 2030, increase by [X] benefits shared for the conservation and sustainable use of biodiversity through ensuring access to and the fair and equitable sharing of benefits arising from utilization of genetic resources and associated traditional knowledge	12.0.1 Numbers of users that have shared benefits from the utilization of genetic resources and/or traditional knowledge associated with genetic resources with the providers of the resources and/or knowledge 12.0.2 Number of access and benefit sharing permits or their equivalent granted for genetic resources (including those related to traditional knowledge) 12.0.3 Extent to which legislative, administrative or policy frameworks to ensure fair and equitable sharing of benefits have been adopted	***12.1.** Access to genetic resources*	Total number of internationally recognized certificates of compliance published in the ABS Clearing-House*		Y		
				Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits	Y	Y	15.6.1	Y
				Number of countries that require prior informed consent that have published legislative, administrative or policy measures on access and benefit-sharing in the ABS Clearing-House.		Y		
				Total number of permits or their equivalent granted for access to genetic resources		Y		
				Total number of transfers of crop material from the Multilateral System of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) received in a country		Y		Y
			***12.2.** Benefit shared from the use of genetic resources*	Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits	Y	Y	15.6.1	
				Number of countries that have legislative, administrative and policy frameworks or measures reported to the ABS Clearing-House		Y		

			12.3. *Benefits resulting from use of traditional knowledge associated with genetic resources*	Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits	Y	Y	15.6.1	Y
13	*By 2030, integrate biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies and accounts at all levels, ensuring that biodiversity values are mainstreamed across all sectors and integrated into assessments of environmental impacts*	*13.0.1 Extent to which national targets for integrating biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies and accounts at all levels, ensuring that biodiversity values are mainstreamed across all sectors and integrated into assessments of environmental impacts* *13.0.2 Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental Economic Accounting*	***13.1.*** *Biodiversity reflected in policies and planning at all levels*	Number of countries that have established national targets in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011–2020 in their national biodiversity strategy and action plans and the progress reported towards these targets; and (b) integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting	Y	Y	15.9.1	
				Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	Y	Y	11.b.2, 13.1.3, 1.5.4	Y
			13.2. *Biodiversity reflected in national and other accounts*	Number of countries that have established national targets in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011–2020 in their national biodiversity strategy and action plans and the progress reported towards these targets; and (b) integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting	Y	Y	15.9.1	
			13.3. *Biodiversity values are reflected in policies and regulations, including on biodiversity inclusive*	The number of countries that have incorporated the BioTrade Principles & Criteria	Y			

			environmental impact assessments and strategic environmental assessments					
14	*By 2030, achieve reduction of at least [50%] in negative impacts on biodiversity by ensuring production practices and supply chains are sustainable*	*14.0.1 Potential population and species loss from terrestrial and marine human modification* *14.0.2 Corporate sustainability reporting includes impacts on biodiversity*	***14.1.** Reduction of at least [50%] in negative impacts on biodiversity*	Ecological Footprint	Y			Y
				Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	Y	Y	6.4.2	
				Change in water use efficiency over time	Y	Y	6.4.1	
				Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	Y	Y	8.4.2, 12.2.2	
				Material footprint, material footprint per capita, and material footprint per GDP	Y	Y	8.4.1, 12.2.1	
			***14.2.** Sustainable production practices, including circular economy and waste management and sustainable supply chains at national and international levels*	Change in water use efficiency over time	Y	Y	6.4.1	
				CO2 emission per unit of value added	Y	Y	9.4.1	
				Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	Y	Y	8.4.2, 12.2.2	
				Number of MSC Chain of Custody Certification holders by distribution country*	Y			
				National recycling rate, tons of material recycled	-	Y	12.5.1	
			***14.3.** Sustainable supply chains at national and international levels*	Area of forest under sustainable management: total FSC and PEFC forest management certification*	Y			Y
				MSC Certified Catch*	Y			Y
				Number of MSC Chain of Custody Certification holders by distribution country*	Y			
15	*By 2030, eliminate*		***15.1.** Sustainable*	Renewable energy share in the total final energy consumption*	Y	Y	7.2.1	

	unsustainable consumption patterns, ensuring people everywhere understand and appreciate the value of biodiversity, make responsible choices commensurate with 2050 biodiversity vision, taking into account individual and national cultural and socioeconomic condition	*15.0.1 Biomass material footprint per capita*	*consumption patterns*	Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	Y	Y	8.4.2, 12.2.2	
				Ecological Footprint	Y			Y
				Forest area as a percentage of total land area	Y	Y	15.1.1	Y
				Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	Y	Y	6.4.2	
				Living Planet Index (LPI) for utilised species	Y			-
				Progress towards sustainable forest management	Y	Y	15.2.1	
				Material footprint, material footprint per capita, and material footprint per GDP	Y	Y	8.4.1, 12.2.1	
			15.2. *New vision of good quality of life based on sustainability and new social norms for sustainability*	Biodiversity Engagement Indicator*	Y			
				UEBT Biodiversity Barometer	Y			
			15.3. *Peoples' responsibility for their choices*	Number of MSC Chain of Custody Certification holders by distribution country	Y			
				UEBT Biodiversity Barometer	Y			
				Number and volume of MSC certified, consumer facing products	Y			
16	*By 2030, establish and implement measures to prevent, manage or control potential adverse impacts of biotechnology on biodiversity and human*	*16.0.1 Extent to which necessary legal, administrative, technical and other biosafety measures are in place to prevent, manage and control potential adverse impacts of*	***16.1.*** *Measures to prevent potential adverse impacts of biotechnology on biodiversity and human health*	Percentage of Parties that have the necessary measures and means for detection and identification of products of biotechnology		Y		
				Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol		Y		
				Percentage of Parties that carry out scientifically sound risk assessments to support biosafety decision-making		Y		

	health reducing these impacts by [X]	*biotechnology on biodiversity*		Percentage of Parties that have the necessary biosafety legal and administrative measures in place		Y	
				Percentage of Parties that implement their biosafety measures		Y	
			***16.2.** Measures to manage adverse impacts of biotechnology on biodiversity and human health*	Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol		Y	
				Percentage of Parties that establish and implement risk management measures		Y	
				Percentage of Parties that carry out scientifically sound risk assessments to support biosafety decision-making		Y	
			***16.3.** Measures to control adverse impacts of biotechnology on biodiversity and human health*	Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol		Y	
				Percentage of Parties with mechanisms to facilitate the sharing of and access to information on biosafety		Y	
			***16.4.** Restoration and compensation for damage to biodiversity caused by LMOs*	Percentage of Parties to the Nagoya – Kuala Lumpur Supplementary Protocol implementing the relevant provisions of the Supplementary Protocol*		Y	
				Percentage of Parties with legal and technical measures for restoration and compensation		Y	
17	*By 2030, redirect, repurpose, reform or eliminate incentives harmful for biodiversity, including [X]*	*17.0.1 Biodiversity relevant taxes, charges and fees on payments for ecosystem services and on biodiversity relevant tradable permit schemes as a percentage of*	***17.1.** Increase in positive public and private economic and regulatory incentives*	Number of countries with biodiversity-relevant charges and fees (and # of instruments)	Y	Y	15.a.1
				Number of countries with biodiversity-relevant taxes (and # of instruments)	Y	Y	15.a.1
				Number of countries with biodiversity-relevant tradable permit schemes (and # of instruments)	Y	Y	

	reduction in the most harmful subsidies, ensuring that incentives, including public and private economic and regulatory incentives, are either positive or neutral for biodiversity	*GDP* *17.0.2 Potentially harmful elements of government support to agriculture, fisheries and other sectors (environmentally harmful subsidies) as a percentage of GDP*	***17.2.** Elimination, phasing out or reform of incentives the most harmful to biodiversity*	Trends in potentially environmentally harmful elements of government support to agriculture (producer support estimate)*	Y	Y	
				Trends in the number and value of government fossil fuel support measures		Y	
18	*By 2030, increase by [X%] financial resources from all international and domestic sources, through new, additional and effective financial resources commensurate with the ambition of the goals and targets of the Framework and implement the strategy for capacity-building and technology transfer and scientific cooperation to meet the needs for implementing*	*18.0.1 Official development assistance, public expenditure and private expenditure on conservation and sustainable use of biodiversity and ecosystems*	***18.1.** Identification of funding needs to meet ambition of the goals and targets of the Framework*	Number of countries that have (a) Assessed values of biodiversity, in accordance with the Convention, (b) Identified and reported funding needs, gaps and priorities (c)Developed national financial plans for biodiversity; (d) Been provided with the necessary funding and capacity building to undertake the above activities		Y	
			***18.2.** Increase in financial resources from international sources*	Amount of funding provided through the Global Environment Facility and allocated to biodiversity focal area (decision X/3)		Y	
				Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries	Y	Y	17.9.1
				Rio markers	Y	Y	
				Amount of biodiversity-related philanthropic funding		Y	
				Amount and composition of biodiversity-related finance reported to the OECD creditor reporting system		Y	
			***18.3.** Increase in financial resources from domestic sources*	Official development assistance on conservation and sustainable use of biodiversity; and (b) revenue generated and finance mobilized from biodiversity-relevant economic instruments*	Y	Y	15.a.1, 15.b.1

	the post2020 global biodiversity framework			Amount of biodiversity-related philanthropic funding		Y		
				Proportion of total research budget allocated to research in the field of marine technology	Y	Y	14.a.1	
			18.4. *Implementation of the strategy for capacity - building*	Volume of official development assistance flows for scholarships by sector and type of study	Y	Y	4.b.1	
				Dollar value of all resources made available to strengthen statistical capacity in developing countries	Y	Y	17.19.1	
			18.5. *Implementation of the strategy for technology transfer and scientific cooperation*	Total amount of funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies	Y	Y	17.7.1	
19	*By 2030, ensure that quality information, including traditional knowledge, is available to decision makers and public for the effective management of biodiversity through promoting awareness, education and research*	*19.0.1 Biodiversity information index 19.0.2 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education*	***19.1.*** *Availability of reliable and up-to-date biodiversity related information*	Growth in marine species occurrence records accessible through OBIS*	Y			
				Growth in number and representation of records and species in the Living Planet Index database*	Y			
				Growth in Species Occurrence Records Accessible Through GBIF*	Y			
				Number of assessments on the IUCN Red List of threatened species*	Y			
				Proportion of known species assessed through the IUCN Red List*	Y			
				Species Status Information Index*	Y			Y
			19.2. *Promotion of awareness of values of biodiversity*	UEBT Biodiversity Barometer	Y			

		and (d) student assessments	***19.3.** Promotion of biodiversity in education*	Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	Y	Y	4.7.1, 12.8.1, 13.3.1
			***19.4.** Availability of research and knowledge, including traditional knowledge, innovations and practices of indigenous peoples and local communities with their free, prior and informed consent*				
20	*By 2030, ensure equitable participation in decision-making related to biodiversity and ensure rights over relevant resources of indigenous peoples and local communities, women and girls as well as youth, in accordance with*	*20.0.1 Land tenure in the traditional territories of indigenous and local communities 20.0.2 Population with secure tenure rights to land 20.0.3 Extent to which indigenous peoples and local communities, women and girls as well as youth participate in decision-making related to biodiversity*	***20.1.** Equitable participation of IPLCs in decision-making related to biodiversity and rights over relevant resources*	Proportions of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups	Y	Y	16.7.1
			***20.2.** Equitable participation of women and girls in decision-making related to biodiversity and rights over*	Proportion of seats held by women in (a) national parliaments and (b) local governments*	Y	Y	5.5.1, 16.7.1
				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	Y	Y	1.4.2

	national circumstances		*relevant resources*	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 of tenure	Y	Y	5.a.1
				Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control	Y	Y	5.a.2
			20.3. *Equitable participation of youth in decision-making related to biodiversity and rights over relevant resources*	Proportions of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups	Y	Y	16.7.1

Annex 2

Summary list of available indicators

#	Indicator	Relevant for goals and targets
1	Above-ground biomass stock in forest (tonnes/ha)	*T7.1*
2	Air emissions accounts	*T10.1*
3	Agricultural land area (% of total land area)	*T1.1, T1.2*
4	Amount and composition of biodiversity-related finance reported to the OECD creditor reporting system	*T18.2*
5	Amount of biodiversity-related philanthropic funding	*T18.2, T18.3, GD1*
6	Amount of funding provided through the Global Environment Facility and allocated to biodiversity focal area (decision X/3)	*T18.2*
7	Amount of pesticide use per hectare	*T6.1*
8	Annual Tropical Primary Tree Cover Loss	*T1.2*
9	Area of forest under sustainable management: total FSC and PEFC forest management certification	*T9.3, T14.3*
10	Average proportion of KBAs covered by protected areas	*T2.2, GA6*
11	Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities	*T11.1, GB3*
12	Biodiversity Engagement Indicator	*T15.2*
13	Biodiversity Habitat Index	*T1.2, GA1*
14	Biodiversity Intactness Index	*T1.3*
15	Change in the [number/proportion] of CITES Parties with legislation in Category 1 under the National Legislation Project	*T4.2*
16	Change in the extent of water-related ecosystems over time	*T1.2, T1.4, T10.3, GA1, GA2*
17	Change in the extent of water-related ecosystems over time (Reservoir dynamics)	*T10.3*
18	Change in water use efficiency over time	*T10.3, T14.1, T14.2*
19	Changes in land productivity	*T9.1*
20	Changes in plankton biomass and abundance	*GA4*
21	Changes in soil organic carbon stocks	*T9.1*
22	CO2 emission per unit of value added	*T14.2*

#	Indicator	Relevant for goals and targets
23	Comprehensiveness of conservation of socioeconomically as well as culturally valuable species	*T3.1, T9.1*
24	Continuous Global Mangrove Forest Cover	*T1.2, GA1*
25	Coverage by protected areas of important sites for mountain biodiversity	*T2.1, T2.2*
26	Coverage of other effective area-based conservation measures	*T2.1, GA6*
27	Coverage of protected areas in relation to marine areas	*T1.1, T2.1*
28	Coverage of protected areas in relation to marine key biodiversity areas	*T2.2*
29	Cumulative human impacts on marine ecosystems	*T1.3*
30	Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing	*T8.1*
31	Degree of integrated water resources management	*T1.1*
32	Dollar value of all resources made available to strengthen statistical capacity in developing countries	*T18.4*
33	Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries	*T18.2*
34	Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	*T14.1, T14.2, T15.1*
35	Ecological Footprint	*T14.1, T15.1*
36	Ecosystem Intactness Index	*T1.2, T1.3*
37	EDGE Index	*GA3*
38	Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	*T19.3*
39	Finance mobilised from domestic public expenditure for biodiversity-positive actions	*GD1*
40	Floating plastic debris density	*T6.3*
41	Forest area as a percentage of total land area	*T1.2, T15.1, GA1, GA2*
42	Forest area with long-term forest management plans	*T1.1*
43	Forest Landscape Integrity Index	*T1.2, T1.5, T7.1, GA2*
44	Forestry Production & Trade (Wood Fuel)	*GB2*
45	Freshwater/wetland dependent Living Planet Index	*T1.2*

#	Indicator	Relevant for goals and targets
46	Global imports of ICT goods as presented by bilateral trade flows by ICT goods categories	*GD3*
47	Global trends in mangrove forest fragmentation	*GA2*
48	Global Vegetation Health Products - Vegetation Health Index	*GA2*
49	Gross primary productivity	*T7.1*
50	Growth in marine species occurrence records accessible through OBIS	*T19.1*
51	Growth in number and representation of records and species in the Living Planet Index database	*T19.1*
52	Growth in Species Occurrence Records Accessible Through GBIF	*T19.1*
53	Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment	*T6.4*
54	In situ and ex situ records-based index of within-species genetic diversity	*GA5*
55	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	*T10.3, T14.1, T15.1, GB1, GB2*
56	Live coral cover	*T1.2, GA1*
57	Live Cover via Vegetation Continuous Fields	*GA1*
58	Living Planet Index (LPI)	*T11.2, GA4, GB1*
58a	Living Planet Index (forest specialists)	*T1.2, GA2*
58b	Living Planet Index (migratory freshwater fish to cover diadromous fish)	*T8.1*
58c	Living Planet Index (freshwater migratory fish)	*T1.5*
58d	Living Planet Index (utilised species)	*T4.1, T4.3, T8.2, T15.1*
59	Marine Trophic Index	*T8.1*
60	Material footprint, material footprint per capita, and material footprint per GDP	*T14.1, T15.1*
61	Mean Species Abundance	*T1.2, T1.3*
62	Mountain Green Cover Index	*T1.2*
63	MSC certified Catch	*T4.2, T4.3, T8.1, T4.1, T14.3*
64	National recycling rate, tons of material recycled	*T14.2*

#	Indicator	Relevant for goals and targets
65	Net primary productivity	*T7.1*
66	Number and hectares of UNESCO-designated sites (natural and mixed World Heritage sites and Biosphere Reserves)	*T2.2, GA6*
67	Number and volume of MSC certified, consumer facing products	*T15.3*
68	Number of assessments on the IUCN Red List of threatened species	*T19.1*
69	Number of countries developing, adopting or implementing policy instruments aimed at supporting the shift to sustainable consumption and production	*GB2*
70	Number of countries that have (a) Assessed values of biodiversity, in accordance with the Convention, (b) Identified and reported funding needs, gaps and priorities (c)Developed national financial plans for biodiversity; (d) Been provided with the necessary funding and capacity building to undertake the above activities	*T18.1*
71	Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030	*T7.1*
72	Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits	*T12.1, T12.2, T12.3, GC2*
73	Number of countries that have established national targets in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011–2020 in their national biodiversity strategy and action plans and the progress reported towards these targets; and (b) integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting	*T13.1, T13.2*
74	Number of countries that have legislative, administrative and policy frameworks or measures reported to the ABS Clearing-House	*T12.2*
75	Number of countries that require prior informed consent that have published legislative, administrative or policy measures on access and benefit-sharing in the ABS Clearing-House.	*T12.1*
76	Number of countries with biodiversity-relevant charges and fees (and # of instruments)	*T17.1*
77	Number of countries with biodiversity-relevant taxes (and # of instruments)	*T17.1*
78	Number of countries with biodiversity-relevant tradable permit schemes (and # of instruments)	*T17.1*
79	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population	*T10.2*
80	Number of formal and non-formal education programmes transmitting spiritual and cultural values in the UNESCO World Network of Biosphere Reserves	*GB3*
81	Number of hectares of transnational and transboundary UNESCO-designated sites (natural and mixed World Heritage sites and Biosphere Reserves)	*T2.5*

#	Indicator	Relevant for goals and targets
82	Number of international, regional and bilateral programmes and initiatives for disaster risk reduction-related capacity-building in developing countries	*GD2*
83	Number of international, regional and bilateral programmes and initiatives for the transfer and exchange of science, technology and innovation in disaster risk reduction for developing countries	*T7.2*
84	Number of invasive alien species in national lists as per Global Register of Introduced and Invasive Species	*T5.2*
85	Number of MSC Chain of Custody Certification holders by distribution country	*T15.3, T14.2, T14.3*
86	Number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities	*T3.1, T9.1, GA5*
87	Number of plant genetic resources for food and agriculture secured in medium or long term conservation facilities	*T8.2*
88	Number of Wetlands of International Importance	*GA6*
89	Nutrient balance	*T6.1*
90	Ocean Health Index	*T1.2, T1.4, T11.2, GA2, GB1*
91	Official development assistance on conservation and sustainable use of biodiversity; and (b) revenue generated and finance mobilized from biodiversity-relevant economic instruments	*T18.3, GD1*
92	Percentage of cropped landscapes with at least 10% natural or semi-natural vegetation within 1km	*T1.2*
93	Percentage of Parties that carry out scientifically sound risk assessments to support biosafety decision-making	*T16.1, T16.2*
94	Percentage of Parties that establish and implement risk management measures	*T16.2*
95	Percentage of Parties that have the necessary biosafety legal and administrative measures in place	*T16.1*
96	Percentage of Parties that have the necessary measures and means for detection and identification of products of biotechnology	*T16.1*
97	Percentage of Parties that implement their biosafety measures	*T16.1*
98	Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol	*T16.1, T16.2, T16.3*
99	Percentage of Parties to the Nagoya – Kuala Lumpur Supplementary Protocol implementing the relevant provisions of the Supplementary Protocol	*T16.4*
100	Percentage of Parties with legal and technical measures for restoration and compensation	*T16.4*
101	Percentage of Parties with mechanisms to facilitate the sharing of and access to information on biosafety	*T16.3*
102	Percentage of threatened species that are improving in status according to the Red List	*T3.1, GA3*

#	Indicator	Relevant for goals and targets
103	Progress towards sustainable forest management	*T2.1, T9.3, T15.1, GA2, GB1*
104	Proportion and number of threatened plant species held in ex situ conservation collections and available for reintroduction/restoration	*T3.1*
105	Proportion of agricultural area under productive and sustainable agriculture	*T9.1*
106	Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species	*T5.1, T5.3*
107	Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control	*T20.2*
108	Proportion of fish stocks within biologically sustainable levels	*T4.1, T8.1, T9.2, GB2*
109	Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	*T2.2, GA6*
110	Proportion of known species assessed through the IUCN Red List	*T19.1*
111	Proportion of land that is degraded over total land area	*T1.2, T1.4*
112	Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management	*T10.3*
113	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	*T7.1, T13.1*
114	Proportion of population using safely managed drinking water services	*T10.3*
115	Proportion of river basins, in a country, where environmental flows are provided in accordance with the e-flow methodology of SDG indicator 6.4.2	*T10.3*
116	Proportion of seats held by women in (a) national parliaments and (b) local governments	*T20.2*
117	Proportion of terrestrial, freshwater and marine ecological regions which are conserved by PAs or OECMs	*T2.3*
118	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	*T20.2*
119	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 of tenure	*T20.2*
120	Proportion of total research budget allocated to research in the field of marine technology	*T18.3, GD1, GD2*
121	Proportion of traded wildlife that was poached or illicitly trafficked	*T4.1, T4.2*

#	Indicator	Relevant for goals and targets
122	Proportions of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups	*T20.1, T20.3*
123	Protected Area Connectedness Index (PARC-Connectedness)	*T2.5*
124	Protected area coverage	*T2.1, GA6*
125	Protected Area Representativeness Index	*T2.3*
126	Protected Areas Management Effectiveness	*T2.4, T2.6*
127	Protected Connected indicator	*T1.5, T2.5*
128	Red List Index (RLI)	*T3.1, T11.2, GA3*
128a	Red List Index (albatrosses and large petrels)	*T8.1*
128b	Red List Index (forest-dependent species)	*T1.2, GA2*
128c	Red List Index (impacts of fisheries)	*T8.1*
128d	Red List Index (impacts of invasive alien species)	*T5.4*
128e	Red List Index (impacts of pollution)	*T6.4*
128f	Red List Index (internationally traded species)	*T4.2*
128g	Red List Index (marine species)	*T1.2, GA2*
128h	Red List Index (migratory species)	*T1.5*
128i	Red List Index (pollinating species)	*T9.1, T11.2, GB1*
128j	Red List Index (species used for food and medicine)	*T8.1, T8.2*
128k	Red List Index (trends driven by fisheries)	*T4.3*
128l	Red List Index (trends driven by utilisation)	*T4.3*
128m	Red List Index (wetland species)	*GA2*
128n	Red List Index (wild relatives of domesticated animals)	*T9.1, GA5*
128o	Red List of Species (commercially exploited aquatic species)	*T4.1*
129	Relative Magnitude of Fragmentation	*GA2*
130	Renewable energy share in the total final energy consumption	*T15.1*

#	Indicator	Relevant for goals and targets
131	Rio markers	*T18.2*
132	Spawning stock Biomass (related to commercially exploited species)	*T8.1*
133	Species Habitat Index	*T1.2, T8.2, GA2, GA4, GB1*
134	Species Protection Index	*T2.2, T2.3, GA3, GA6*
135	Species Status Information Index	*T19.1*
136	The number of countries that have incorporated the BioTrade Principles & Criteria	*T13.3*
137	Total amount of funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies	*T18.5, GD1*
138	Total catch of cetaceans under the International Convention for the Regulation of Whaling	*T4.1*
139	Total number of internationally recognized certificates of compliance published in the ABS Clearing-House	*T12.1, GC1*
140	Total number of permits or their equivalent granted for access to genetic resources	*T12.1*
141	Total number of transfers of crop material from the Multilateral System of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) received in a country	*T12.1*
142	Total public expenditure per capita on the preservation, protection and conservation of natural heritage	*GD1*
143	Tree Cover Loss	*T1.2, GA1, GA2*
144	Trends in invasive alien species vertebrate eradications	*T5.3*
145	Trends in Loss of Reactive Nitrogen to the Environment	*T6.1*
146	Trends in mangrove extent	*T1.2, GA1, GB1*
147	Trends in Nitrogen Deposition	*T6.1*
148	Trends in potentially environmentally harmful elements of government support to agriculture (producer support estimate)	*T17.2*
149	Trends in protected area downgrading, downsizing and degazettement	*T2.4*
150	Trends in the number and value of government fossil fuel support measures	*T17.2*
151	Trends in the numbers of invasive alien species introduction events	*T5.1*
152	UEBT Biodiversity Barometer	*T15.2, T15.3, T19.2*
153	Volume of official development assistance flows for scholarships by sector and type of study	*T18.4, GD1, GD2*

#	Indicator	Relevant for goals and targets
154	Volume of production per labour unit by classes of farming/pastoral/ forestry enterprise size	*T8.2*
155	Water Turbidity and an estimate of Trophic State Index	*T6.1, GA1, GA2*

Annex 3

Headline indicators and available indicators mapping

Proposed headline indicators for goals CBD/SBSTTA/24/3	**Comments**	**Available indicators**
A.0.1 Extent of selected natural ecosystems (forest, savannas and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats)	Available indicators could provide data for this headline indicator	Change in the extent of water-related ecosystems over time (SDG 6.6.1), Forest area as a percentage of total land area (SDG 15.1.1), Live Cover via Vegetation Continuous Fields, Tree cover loss, Trends in mangrove extent
A.0.2. Living Planet Index	Indicator assessed and available	Living Planet Index
A.0.3 Red list index	Indicator assessed and available	Red List Index (SDG 15.5.1)
A.0.4 Species habitat index	Indicator assessed and available	Species habitat index
A.0.5 The proportion of populations maintained within species	Under development	
B.0.1 Population benefiting from ecosystem services	Under development	
B.0.2 Value of all final ecosystem services (Gross Ecosystem Product)	Under development	
C.0.1 Amount of monetary benefits (in United States dollars) received by countries from utilization of genetic resources as a result of an ABS agreement including traditional knowledge	Available indicators could provide data for this headline indicator	Total number of internationally recognized certificates of compliance published in the ABS Clearing-House
C.0.2 Number of research and development results or publications shared as a result of an ABS agreement	Not assessed. Data may be available from ABS Clearing House	
D.0.1 Index of coverage of national biodiversity strategies and action plans with formal processes for ensuring that women, indigenous and local communities and youth are engaged and which capture means of implementation	Under development	
D.0.2 National funding for implementation of the Global Biodiversity Framework	Under development	

Proposed headline indicators for targets CBD/SBSTTA/24/3	**Comments**	**Available indicators**
1.0.1 Percentage of land covered by landscape scale land-use plans for terrestrial, freshwater and marine ecosystems	Available indicators could provide data for this headline indicator	Coverage of protected areas in relation to marine areas (SDG 14.5.1), Forest area with long-term forest management plans (SDG 15.2.1), Degree of integrated water resources management (SDG 6.5.1)
2.0.1 Protected Area Coverage of important biodiversity areas	Available indicators could provide data for this headline indicator	Average proportion of KBAs covered by protected areas, Coverage of protected areas in relation to marine key biodiversity areas, Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type(SDG 15.1.2), Coverage by protected areas of important sites for mountain biodiversity (SDG 15.4.1)
2.0.2 Species Protection Index	Indicator assessed and available	Species Protection Index
3.0.1 Protected Areas Management Effectiveness	Indicator assessed and available	Protected Areas Management Effectiveness
3.0.2 Species recovery programmes	Under development	
4.0.1 Proportion of traded wildlife that is legal and safe (not poached, illicitly trafficked or unsustainable)	Available indicators could provide data for this headline indicator	Proportion of traded wildlife that was poached or illicitly trafficked (SDG 15.7.1/15.C.1), Change in the [number/proportion] of CITES Parties with legislation in Category 1 under the National Legislation Project
4.0.2 Proportion of fish stocks within biologically sustainable levels	Indicator assessed and available	Proportion of fish stocks within biologically sustainable levels (SDG 14.4.1)
5.0.1 Rate of invasive alien species spread	Available indicators could provide data for this headline indicator	Trends in the numbers of invasive alien species introduction events; Number of invasive alien species in national lists as per Global Register of Introduced and Invasive Species
5.0.2 Rate of invasive alien species impact	Available indicator could provide data for this headline indicator	Red List Index (impacts of invasive alien species)
6.0.3 Proportion of water with good ambient water quality (freshwater and marine)	Not assessed. Data may be available from SDG 14.1.1a and SDG 6.3.2	

Proposed headline indicators for targets CBD/SBSTTA/24/3	**Comments**	**Available indicators**
6.0.2 Plastic debris density	Indicator assessed and available	Floating plastic debris density (SDG 14.1.1b)
6.0.3 Pesticide use per area of cropland	Not assessed. Data may be available from FAO	
6.0.4 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal solid waste generated by cities	Not assessed. SDG indicator 11.6.1	
7.0.1 Total climate regulation services provided by ecosystems	Under development	
8.0.1 Number of people using wild resources for energy, food or culture (including firewood collection, hunting and fishing, gathering, medicinal use, craft making, etc)	Under development	
8.0.2 Percentage of the population in traditional employment	Under development	
9.0.1 Proportion of agricultural area under productive and sustainable agriculture	Indicator assessed and available	Proportion of agricultural area under productive and sustainable agriculture (SDG 2.4.1)
10.0.1 Population living in areas with clean air and clean and accessible water	Under development	
10.0.2 Ecosystems providing reduced coastal erosion, flood protection and other services)	Under development	
11.0.1 Average share of the built-up area of cities that is open space for public use for all	Indicator assessed and available	Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities (SDG 11.7.1)
12.0.1 Numbers of users that have shared benefits from the utilization of genetic resources and/or traditional knowledge associated with genetic resources with the providers of the resources and/or knowledge	Not assessed. Data may be available from ABS CH	
12.0.2 Number of access and benefit-sharing permits or their equivalent granted for genetic resources (including those related to traditional knowledge)	Available indicator could provide data for this headline indicator	Total number of permits or their equivalent granted for access to genetic resources

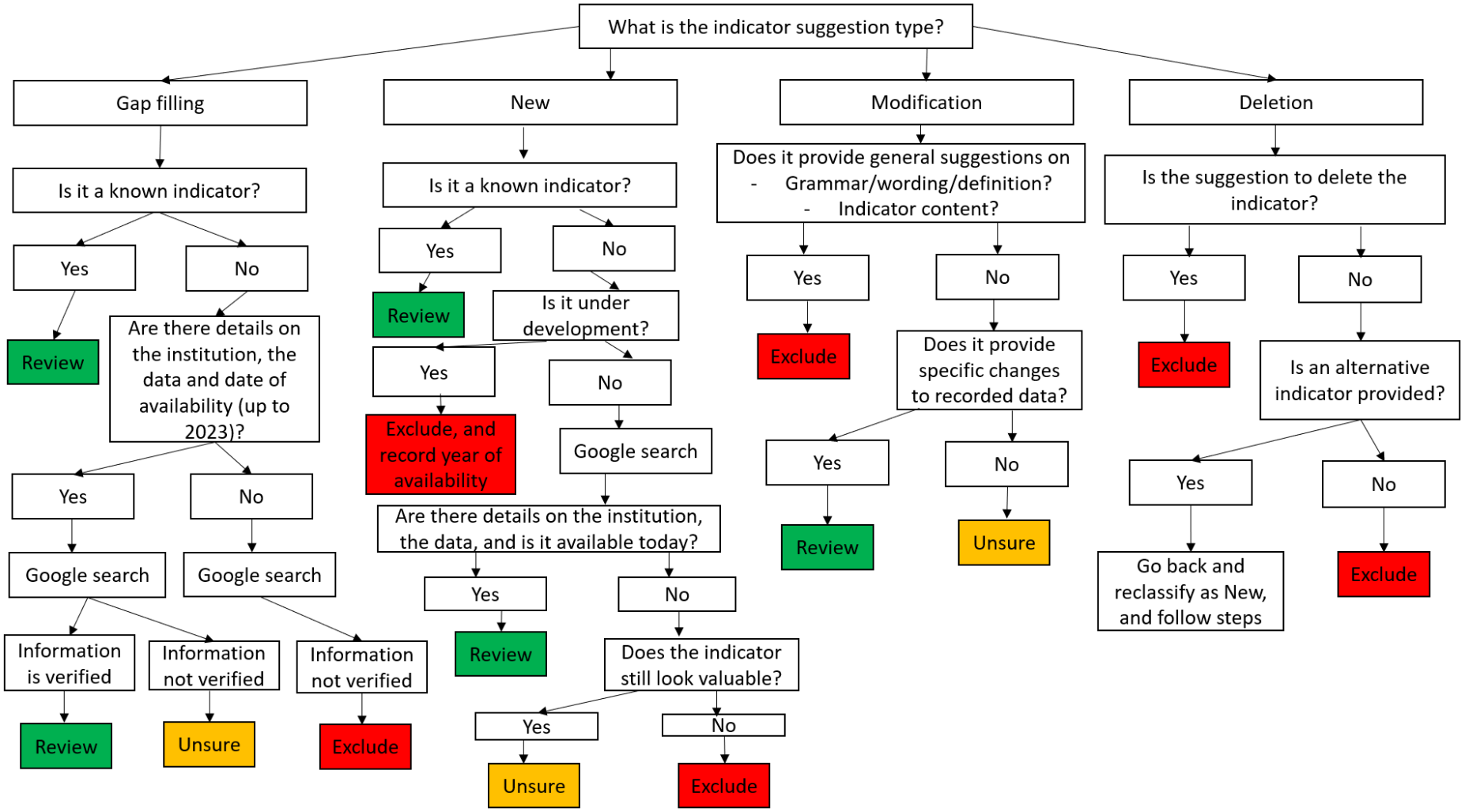
Proposed headline indicators for targets CBD/SBSTTA/24/3	**Comments**	**Available indicators**
12.0.3 Extent to which legislative, administrative or policy frameworks to ensure fair and equitable sharing of benefits have been adopted	Indicator assessed and available	Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits (SDG 15.6.1)
13.0.1 Extent to which national targets for integrating biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies and accounts at all levels, ensuring that biodiversity values are mainstreamed across all sectors and integrated into assessments of environmental impacts	Available indicator could provide data for this headline indicator	Number of countries that have established national targets in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011–2020 in their national biodiversity strategy and action plans and the progress reported towards these targets (SDG 15.9.1)
13.0.2 Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental Economic Accounting (SEEA)	Indicator assessed and available	Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting (SDG 15.9.1)
14.0.1 Potential population and species loss from terrestrial and marine human modification	Under development	
14.0.2 Corporate sustainability reporting includes impacts on biodiversity	Under development	
15.0.1 Biomass material footprint per capita	Available indicators could provide data for this headline indicator	Material footprint, material footprint per capita, and material footprint per GDP, Domestic material consumption (SDG 8.4.1/12.2.1), Domestic material consumption per capita, and domestic material consumption per GDP (SDG 8.4.2, 12.2.2), Ecological Footprint
16.0.1 Extent to which necessary legal, administrative, technical and other biosafety measures are in place to prevent, manage and control potential adverse impacts of biotechnology on biodiversity	Under development	

Proposed headline indicators for targets CBD/SBSTTA/24/3	**Comments**	**Available indicators**
17.0.1 Biodiversity relevant taxes, charges and fees on payments for ecosystem services and on biodiversity relevant tradable permit schemes as a percentage of GDP	Available indicators could provide data for this headline indicator	Number of countries with biodiversity-relevant charges and fees and # of instruments (SDG 15.a.1), Number of countries with biodiversity-relevant taxes and # of instruments (SDG 15.a.1), Number of countries with biodiversity-relevant tradable permit schemes (and # of instruments)
17.0.2 Potentially harmful elements of government support to agriculture, fisheries and other sectors (environmentally harmful subsidies).	Available indicators could provide data for this headline indicator	Trends in potentially environmentally harmful elements of government support to agriculture (producer support estimate), Trends in the number and value of government fossil fuel support measures
18.0.1 Official development assistance, public expenditure and private expenditure on conservation and sustainable use of biodiversity and ecosystems	Available indicators could provide data for this headline indicator	Official development assistance on conservation and sustainable use of biodiversity; and (b) revenue generated and finance mobilized from biodiversity-relevant economic instruments (SDG 15.a.1/15.b.1), Amount of biodiversity-related philanthropic funding, Amount and composition of biodiversity-related finance reported to the OECD creditor reporting system, Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries (SDG 17.9.1), Amount of funding provided through the Global Environment Facility and allocated to biodiversity focal area (decision X/3)
19.0.1 Biodiversity information index	Under development	
19.0.2 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessments.	Indicator assessed and available	Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment (SDG 4.7.1/12.8.1/13.3.1)

Proposed headline indicators for targets CBD/SBSTTA/24/3	**Comments**	**Available indicators**
20.0.1 Land tenure in the traditional territories of indigenous and local communities	Under development	
20.0.2 Population with secure tenure rights to land	Available indicators could provide data for this headline indicator	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 (SDG 1.4.2), 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 (SDG 5.a.1)
20.0.3 Extent to which indigenous peoples and local communities, women and girls as well as youth participate in decision-making related to biodiversity	Available indicators could provide data for this headline indicator	Proportions of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups (SDG 16.7.1), Proportion of seats held by women in (a) national parliaments and (b) local governments (SDG 5.5.1)

Annex 4

Decision tree used to identify available indicators from peer review submissions



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