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SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE

Twenty-fourth meeting

Online, 3 May – 9 June 2021 and Geneva, Switzerland, 14-29 March 2022

Agenda item 3

# RECOMMENDATION ADOPTED BY THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE

**24/2.** **Proposed monitoring framework for the post-2020 global biodiversity framework**

*The Subsidiary Body on Scientific, Technical and Technological Advice*

1. *Takes note* of thesummary and proposed list of indicators for consideration in developing the monitoring framework for the post-2020 global biodiversity framework, and the list of proposed indicators for potential inclusion as headline indicators for the post-2020 global biodiversity framework, prepared by the cochairsof the contact group on the item “Proposed monitoring framework for the post-2020 global biodiversity framework at the second part of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, contained in Appendices 1 and 2 respectively”;
2. *Requests* the Executive Secretary, under the guidance of the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice, to compile comments from Parties, other Government and relevant stakeholders on Appendices 1 and 2 of the present recommendation, and to facilitate a scientific and technical review, ensuring consultation with Parties, including, subject to the availability of resources, through the organization of an expert workshop (inviting experts nominated by Parties with regional representation and gender balance), of the proposed indicators of the monitoring framework for the post‑2020 global biodiversity framework, building on the work done at part II of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice as contained in Appendices 1 and 2, focussing on a comprehensive analysis of high level indicators that have a methodology in place and the feasibility for Parties to use them, as well as the work of the Working Group on the Post-2020 Global Biodiversity Framework, and to make the outcome available for consideration by the Working Group on the Post-2020 Global Biodiversity Framework and the Conference of the Parties at its fifteenth meeting.
3. *Also Requests* the Executive Secretary to consider the concerns of Parties related to the headline indicators to be developed and in this regard, further requeststhat these concerns are communicated to the institutions responsible for developing these indicators.

4. *Recommends* that the Conference of the Parties at its fifteenth meeting adopt a decision that includes the following elements, taking into account also the conclusions of the third meeting of the Subsidiary Body on Implementation and the third meeting of the Open-ended Working Group on the Post‑2020 Global Biodiversity Framework:

*[The Conference of the Parties*

[1. *Adopts* the monitoring framework for the post-2020 global biodiversity framework in annex I of the present decision;]

2. *Decides* to use the period from [2011-2020], where data is available, as the reference period, unless otherwise indicated, for reporting and monitoring progress in the implementation of the post-2020 global biodiversity framework, [while noting][and recognizes] that baselines, conditions and periods used to express [different responsibilities,] desirable states or levels of ambition in goals and targets should, where relevant, take into account [historical trends,][ historic loss,] current status, and future scenarios of biodiversity [, including available information on the pre-industrial period];

3. *Also decides* to consider a review of the monitoring framework in order to finish its development at its sixteenth meeting, and thereafter keep the monitoring framework under review, as appropriate;

[4. *Further decides* that the headline indicators will be used [in global assessments] to monitor progress towards the goals and targets of the post-2020 global biodiversity framework, complemented, as appropriate, by the component and complementary indicators;]

[5*. Also decides* that the headline indicators [should] [will] be used by [all] Parties in their national reports for reporting on their implementation of the post-2020 global biodiversity framework, where technically feasible and as [appropriate][applicable][and in accordance with Article 20][and encourages the establishment of mechanisms to build capacity in developing countries to support filling monitoring and reporting gaps];]

[6. *Encourages* all Parties to use the headline indicators in national planning processes, including national biodiversity strategies and action plans [or programmes for the conservation and sustainable use of biodiversity] and other national planning processes [as appropriate and according to their national priorities and circumstances;]]

[7*. Invites* Parties to [adapt and] use the list of component and complementary indicators in their national planning processes [as appropriate and according to their national priorities and circumstances] and in their national reports for reporting on their progress in implementation of the post-2020 global biodiversity framework in line with Article 26 of the Convention, [as appropriate and according to their national priorities and circumstances;]]

8.[*Recognizes* the value of aligning][*Further invites* Parties to align] national monitoring with the United Nations System of Environmental-Economic Accounting statistical standard in order to mainstream biodiversity in national statistical systems and to strengthen national monitoring systems and reporting [as appropriate and according to their national priorities and circumstances];

9*.* [*Encourages*][*urges*] Parties [, pursuant to article 20,] and *invites* other Governments, the Global Environment Facility, the Biodiversity Indicator Partnership, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and other relevant organizations [and those invited to be part of the technical expert group on indicators] to support national, regional and global biodiversity monitoring systems;

[10*. Invites* the United Nations Statistical Commission, the Group on Earth Observations Biodiversity Observation Network, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the Biodiversity Indicators Partnership and other relevant organizations to support the operationalization of the monitoring framework for the post-2020 global biodiversity framework;]

11. *Decides* to establish an ad hoc technical expert group, with a time-bound mandate until the sixteenth meeting of the Conference of the Parties, to advise on the further operationalization of the monitoring framework for the post-2020 global biodiversity framework in accordance with the terms of reference contained in annex II to the present decision;

12. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to review outcomes of the ad hoc technical expert group and complete the scientific and technical review of the monitoring framework and report their findings for subsequent consideration by the Subsidiary Body on Implementation and by the Conference of the Parties at its sixteenth meeting;

13. *Decides* to consider the requirements for further work to fully implement and review the effectiveness of the monitoring framework for the post-2020 global biodiversity framework at its sixteenth meeting;

14. *Requests* the Executive Secretary, in collaboration with the ad hoc technical expert group, and subject to the availability resources, to convene moderated online discussions on the monitoring framework;

[15. *Requests* the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions to continue the development of and operationalization of indicators related to traditional knowledge and indigenous peoples and local communities and report on this work to the Parties and for the Secretariat to make information available on progress and outcomes to the ad hoc technical expert group [and other relevant working groups];]

16. *Requests* the Executive Secretary [subject to the availability of resources], in collaboration with relevant partners:

* 1. To [make available] [facilitate the development of] guidance on capacity-building and development to support Parties in implementing the monitoring framework, taking into account the special needs, circumstances and priorities of developing countries, [in particular the least developed countries, small island developing States, and countries with economies in transition], in compiling and using the headline indicators, and component and complementary indicators when relevant, including in their national reports, national biodiversity strategies and action plans and other national planning processes;
  2. To facilitate the use of relevant tools, including the Data Reporting Tool (DaRT), to facilitate national reporting and the sharing of information between multilateral environment agreements.

17. *Invites* the Global Partnership on Plant Conservation, with the support of the Secretariat and subject to the availability of resources, to prepare a set of complimentary actions related to plant conservation to support the implementation of the global biodiversity framework aligned with the final post-2020 global biodiversity framework, other relevant decisions adopted at the fifteenth meeting of the Conference of the Parties as well as previous experiences with the implementation of the Global Strategy for Plant Conservation as described in the fifth edition of the *Global Biodiversity Outlook* and the 2020 Plant Conservation Report, to be considered by a meeting of the Subsidiary Body following the fifteenth meeting of the Conference of the Parties.

*Annex I*

**PROPOSED MONITORING FRAMEWORK FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK[[1]](#footnote-1)**

1. The monitoring framework is composed of three [four] groups of indicators for monitoring the implementation of the post-2020 global biodiversity framework:
   1. Headline indicators (contained in Appendix 1): a minimum set of high-level indicators, which capture the overall scope of the goals and targets of the post-2020 global biodiversity framework to be used for planning and tracking progress as set out in decision 15/--.[[2]](#footnote-2) They are nationally, regionally and globally relevant indicators [validated by Parties]. These indicators can also be used for communication purposes;
   2. Component indicators (contained in Appendix 2): A list of optional[, multidimensional] indicators that together with the headline indicators would cover all components of the goals and targets of the post-2020 global biodiversity framework at the global, regional, national and [subnational] levels;
   3. Complementary indicators (contained in Appendix 2): a list of optional [, multidimensional] indicators for thematic or in-depth analysis of each goal and target which may be applicable at global, regional, national, and [subnational] levels;

[1 *bis*] [(d)] [ The monitoring framework [can][will] be supplemented by [additional] national [and subnational] indicators.]

1. The indicators in the monitoring framework for the post-2020 global biodiversity framework should meet, or be able to meet by 2025, the following criteria:
   1. The data and metadata related to the indicator are publicly available;
   2. The methodology underpinning the indicator is either published in a peer reviewed academic journal or has gone through a scientific peer review process and has been validated for national use;
   3. The data sources and indicators should be compiled and regularly updated with a time lag of less than five years between updates, if possible;
   4. There is an existing mechanism for maintaining the indicator methodology and/or data generation, including, for example, by a member of the Biodiversity Indicators Partnership, an intergovernmental organization or a well-established scientific or research institution, including providing nationally applicable guidance on the use of the indicator;

(d) *alt*. Indicators should be able to detect trends relevant to the components of the goals and targets of the post-2020 global biodiversity framework;

* 1. When possible, indicators are aligned with existing intergovernmental processes under the United Nations Statistical Commission, such as the Sustainable Development Goals, the Framework for the Development of Environment Statistics or the System of Environmental-Economic Accounting. Additionally, an effort was made to utilize the existing work on essential biodiversity variables under the Group on Earth Observations Biodiversity Observation Network.

1. Headline indicators use methodologies agreed by Parties and are calculated based on national data from national monitoring networks and national sources, calculated at a national level, recognizing that in some cases this may need to draw on global dataset and if national indicators are not available then the use of global indicators at a national level must be validated through appropriate national mechanisms. These indicators would allow for consistent, standardized and scalable tracking of global goals and targets.
2. To facilitate the compilation and use of these headline, component and complementary indicators at the national level[, enabled by effective national biodiversity monitoring systems and other information systems,] capacity and development activities, technology and other support will be required. [The Secretariat together with organizations identified in the indicator metadata sheets as data providers, such as the Group on Earth Observations Biodiversity Observation Network, the International Union for Conservation of Nature, the System of Environmental-Economic Accounting and others, would be invited to provide guidelines and information for the design and implementation of national monitoring systems to support the collection of data and the calculation of headline indicators.] [In this way, developing country Parties would effectively use the headline indicators, as well as component and complementary indicators, supported by the effective provision of adequate means of implementation, in line with the provisions of the Convention, including the establishment of mechanisms to increase the capacity-building and development and technical and scientific cooperation to fill monitoring gaps.]
3. In order to maximize uptake and minimize the reporting burden, the proposed list of headline indicators comprises a small number of indicators which are intended to capture the overall scope of a goal or target in the post-2020 global biodiversity framework. The headline indicators may not capture all components of a goal or a target but for analytical purposes can be complemented, as appropriate, with the component and complementary indicators.

*[Annex II*

# Terms of reference for aN Ad HOC technical expert group on indicators for the post-2020 global biodiversity framework

1. The Ad Hoc Technical Expert Group on Indicators will work:
2. To identify detailed metadata [and information] including [as appropriate, reference periods and] global baselines, prioritizing first headline indicators (according to the criteria identified in the annex to document CBD/-)[then component and complementary indicators] of the monitoring framework for the post-2020 global biodiversity framework, taking into account existing methodologies and standards which have been developed, including the Sustainable Development Goal indicators, the Framework for the Development of Environment Statistics and the System of Environmental-Economic Accounting developed under the auspices of the Statistical Commission;
3. To provide technical advice and develop guidance on addressing gaps in the monitoring framework, prioritizing headline indicators, and in the implementation of indicators for the monitoring framework for the post-2020 global biodiversity framework, including advice on the use of harmonized and agreed indicator definitions, best practices for monitoring and national data sharing, and scientific and technical advice on the improvement of indicators or the addition of new indicators in the monitoring framework of the post-2020 global biodiversity framework, including indicators relevant to stakeholders;
4. To provide technical advice on remaining and unresolved issues relating to the post-2020 monitoring framework, as outlined by the Conference of the Parties at its fifteenth meeting, and to prioritize work on the following elements leading up to the sixteenth meeting of the Conference of the Parties:
   * 1. Conduct a full assessment of headline, component and complementary indicators;
     2. Explore methods for the implementation of indicators in national planning and reporting;
     3. (List to be determined based on progress achieved by the fifteenth meeting of the Conference of the Parties).
5. To provide guidance to Parties on ways to fill temporal and spatial data gaps, including through the use of big data, including citizen science, community-based monitoring and information systems, remote sensing, modelling and statistical analysis, and other forms of data and other knowledge systems, recognizing the specific challenges faced by developing country Parties to develop and access information tools;
6. To provide advice on the existing capacity, gaps and needs in terms of capacity development, technology transfer and financing needs related to the monitoring of the global biodiversity framework in consultation with the Informal Advisory Group on Technical and Scientific Cooperation.[[3]](#footnote-3)
7. The group will take into account:
   1. Previous work and experience under the Convention and other relevant programmes of work concerning indicators and monitoring;
   2. Statistical standards and development under the intergovernmental forum of the Statistical Commission;
   3. Previous work and experience with other relevant global, regional and national monitoring frameworks, multilateral environment agreements, and knowledge systems;
   4. Recent developments and information on issues related to the indicators, their metadata and baselines.
8. The Group will be composed of 30 technical experts nominated by Parties, including experts on statistics and experts in relevant social and natural sciences, and up to 15 representatives nominated by observer organizations and other relevant organizations. The Executive Secretary, in consultation with the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice, will select experts from the nominations submitted by Parties and organizations with due regard to representation of different areas of technical expertise, while recognizing the need for expert knowledge of biodiversity, and ensuring expertise on freshwater, marine and coastal ecosystems, also taking into account geographical representation, and the representation of indigenous peoples and local communities, major stakeholders and rights holders’ groups, gender balance and the special conditions of developing countries, archipelagic States, in particular the least developed countries, small island developing States, and countries with economies in transition.
9. The Group will nominate two co-chairs from among the selected experts.
10. The Chair of the Subsidiary Body on Scientific, Technical and Technological Advice will be invited to participate in the group ex officio.
11. The Group may also invite other experts, as appropriate, from national Governments, [subnational and local governments,] the United Nations and other international organizations, civil society, youth, women’s groups, indigenous peoples and local communities, including representatives from the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions, academia and the private sector to contribute their expertise and experiences on specific issues related to the terms of reference of the Group.
12. The Group will primarily conduct its work electronically and [subject to the availability of resources,] will also meet physically, if possible, meeting at least twice during the intersessional period.
13. The Ad Hoc Technical Expert Group should be established and start its work immediately after approval by the Conference of the Parties at its fifteenth meeting and report on its work to the Subsidiary Body on Implementation and the Subsidiary Body on Scientific, Technical and Technological Advice at meetings held prior to the sixteenth meeting of the Conference of the Parties.

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*Appendix 1*

# Co-chairs’ summary and proposed list of indicators for consideration in developing the monitoring framework for the post-2020 global biodiversity framework

**Co-Chairs Summary[[4]](#footnote-4)**

| **Goal/Milestone/Target[[5]](#footnote-5)** | **Headline indicator** | **Summary of the assessment** | **Component indicator** | **Complementary indicators** |
| --- | --- | --- | --- | --- |
| Goal A The integrity of all ecosystems is enhanced, with an increase of at least 15 per cent in the area, connectivity and integrity of natural ecosystems, supporting healthy and resilient populations of all species, the rate of extinctions has been reduced at least tenfold, and the risk of species extinctions across all taxonomic and functional groups is halved, and genetic diversity of wild and domesticated species is safeguarded, with at least 90 per cent of genetic diversity within all species maintained.  *Milestone A.1 Net gain in the area, connectivity and integrity of natural systems of at least 5 per cent.*  *Milestone A.2 The increase in the extinction rate is halted or reversed, and the extinction risk is reduced by at least 10 per cent, with a decrease in the proportion of species that are threatened, and the abundance and distribution of populations of species is enhanced or at least maintained.*  *Milestone A.3 Genetic diversity of wild and domesticated species is safeguarded, with an increase in the proportion of species that have at least 90 per cent of their genetic diversity maintained.* | A.0.1 Extent of [selected] natural and [seminatural and] modified [sustainable[y]][managed] ecosystems [in all biomes of the IUCN ecosystem typology] by type [(e.g. forest, [desert,] savannahs and grasslands, wetlands, [lakes, rivers,] [alpine vegetation,] mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats)] | Relevance: Green/yellow  Nationally feasible: yellow  Globally feasible with national disaggregation: Yellow  Readiness: Yellow  Summary: Relevant, not fully operational  Many Parties supported this indicator with minor modifications. Some Parties noted the need for an additional indicator on connectivity and integrity. A number of alternative indicators were proposed. In particular, the Red List of Ecosystems (a.8) was proposed by several of Parties. | A.2.1 CMS connectivity indicator (CMS)  A.3.1 Ecosystem Integrity Index  A.4.1 Species status information index  A.4.2 Living Planet Index  A.8.1 Proportion of populations maintained within species | a.1. Forest area as a proportion of total land area (SDG indicator 15.1.1)  a.2. Forest distribution  a.3. Tree cover loss  a.4. Grassland and savannah extent  a.5. Mountain Green Cover Index  a.6. Peatland extent and condition  a.7. Permafrost thickness, depth and extent  a.8. Red List of Ecosystems  a.9. Continuous Global Mangrove Forest Cover  a.10. Trends in mangrove forest fragmentation  a.11. Change in the extent of water-related ecosystems over time (SDG indicator 6.6.1)  a.12. Trends in mangrove extent  a.13. Live coral cover  a.14. Hard Coral cover and composition  a.15. Global coral reef extent  a.16. Global Seagrass Extent (Seagrass Cover and composition)  a.17. Global saltmarsh extent  a.18. Kelp canopy extent  a.19. Macroalgal Canopy Cover and Composition  a.20. Cover of key benthic groups  a.21. Fleshy algae cover  a.22. Wetland Extent Trends Index  a.23. Change in the extent of inland water ecosystems over time  a.24. Change in the extent of water related ecosystems (SDG Indicator 6.6.1)  a.25. Forest Fragmentation Index  a.26. Forest Landscape Integrity Index  a.27. Biomass of selected natural ecosystems (A.0.2)  a.28. Biodiversity Habitat Index  a.29. Global Vegetation Health Products  a.30. Bioclimatic Ecosystem Resilience Index (BERI)  a.31. Relative Magnitude of Fragmentation (RMF)  a.32. Ecosystem Intactness Index  a.33. Biodiversity Intactness Index  a.34. Ocean Health Index  a.35. Extent of physical damage indicator to predominant seafloor habitats physical damage  a.36. Wetland Extent Trends Index  a.37. River Fragmentation Index  a.38. Dendritic Connectivity Index  a.39. Percentage of threatened species that are improving in status according to the Red List  a.40. Changing status of evolutionary distinct and globally endangered species (EDGE Index)  a.41. Number of threatened species by species group  a.42. Wild bird index  a.43. Mean Species Abundance (MSA)  a.44. Species Protection Index  a.45. Changes in plankton biomass and abundance  a.46. Fish abundance and biomass  a.47. The number of populations (or breeds) within species with an eﬀective population size > 500 compared to the number < 500  a.48. Genetic scorecard for wild species  a.49. Species richness/Changes in local terrestrial diversity (PREDICTS)  a.50. Marine species richness  a.51. Comprehensiveness of conservation of socioeconomically as well as culturally valuable species.  a.52. Number of plant and animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities (SDG 2.5.1)  a.53. Proportion of local breeds classified as being at risk, extinction  a.54. Red List Index (wild relatives of domesticated animals) |
| A.0.2 Species Habitat Index | Relevance: Red/yellow  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Yellow  Summary: Low relevance, not fully operational  Some Parties expressed support for this indicator, many Parties felt that this indicator should not be included at the headline level and should be at the component level. The addition of the Living Planet Index was proposed by a number of Parties. A number of other indicators were suggested. |
| A.0.3 Red list index (SDG 15.5.1) | Relevance: Green  Nationally feasible: Yellow  Globally feasible with national disaggregation: Green  Readiness: Green  Summary: Relevant and ready to use.  Most Parties supported the use of the indicator at the global level. However, some Parties noted differences in the implementation of this indicator at the national level. |
| A.0.4 The proportion of populations within [umbrella] species with a [genetically] effective population size > 500 | Relevance: Green  Nationally feasible: Yellow  Globally feasible with national disaggregation: Red  Readiness: Yellow  Summary: Relevant, not fully operational  Many Parties supported the concept of this indicator; however, noted that it would require resources to operationalize it and that it would be difficult in the near term. A number of other indicators were suggested. |
| Goal B Nature’s contributions to people are valued, maintained or enhanced through conservation and sustainable use supporting the global development agenda for the benefit of all.  *Milestone B.1 Nature and its contributions to people are fully accounted and inform all relevant public and private decisions.*  *Milestone B.2 The long-term sustainability of all categories of nature’s contributions to people is ensured, with those currently in decline restored, contributing to each of the relevant Sustainable Development Goals.* | B.0.1 National environmental economic accounts of ecosystem services\* | Relevance: Green/yellow  Nationally feasible: Yellow  Globally feasible with national disaggregation: Red  Readiness: Yellow/red  Summary: Relevant, not fully operational  Some Parties suggested splitting this indicator into biophysical and monetary accounts with the monetary accounts being optional. Some Parties stated that an indicator on sustainable use should be added. | B.2.1 Nature’s regulating contributions including climate regulation, disaster prevention and other (from the environmental economic accounts)  B.3.1 Nature’s material contributions including food, water and others (from the environmental economic accounts)  B.4.1 Nature’s non-material contributions including cultural (from the environmental economic accounts) | b.1. Expected loss of Phylogenetic Diversity (IPBES phylogenetic diversity indicator)  b.2. Red List Index (pollinating species)  b.3. Green status index (pollinators)  b.4. Air quality index  b.5. Air pollution emissions account  b.6. Zoonotic disease in wildlife  b.7. Climatic impact index  b.8. Ocean acidification (SDG 14.3.1)  b.9. Level of water stress: freshwater withdrawal as a proportion of available freshwater resources  b.10. Proportion of bodies of water with good ambient water quality (SDG indicator 6.3.2)  b.11. Eflow index  b.12. Change in the quality of inland water ecosystems over time  b.13. Change in the quality of coastal water ecosystems over time  b.14. Level of erosion  b.15. Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1)  b.16. Intact wilderness  b.17. Biofuel production  b.18. Maximum fish catch potential  b.19. Population involved in hunting and gathering  b.20. Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale  b.21. Forestry Production & Trade (Wood Fuel)  b.22. Trends in the legal trade of medicinal plants  b.23. Visitor management assessment  b.24. Number of formal and non-formal education programmes transmitting spiritual and cultural values in the UNESCO World Network of Biosphere Reserves  b.25. Number of mixed sites (having both natural and cultural Outstanding Universal Values), cultural landscapes (recognized as combined works of nature and people) and natural sites with cultural values including those supporting local and indigenous knowledge and practices inscribed on the UNESCO World Heritage List and UNESCO World Network of Biosphere Reserves  b.26. Index of Linguistic Diversity - Trends of linguistic diversity and numbers of speakers of indigenous languages  b.27. Index of development of the standard- setting framework for the protection and promotion of culture, cultural rights and cultural diversity  b.28. Cultural vitality index  b.29. UNESCO Culture 2030 (multiple indicators) |
| Goal C The benefits from the utilization of genetic resources are shared fairly and equitably, with a substantial increase in both monetary and non-monetary benefits shared, including for the conservation and sustainable use of biodiversity.  *Milestone C.1 The share of monetary benefits received by providers, including holders of traditional knowledge, has increased.*  *Milestone C.2 Non-monetary benefits, such as the participation of providers, including holders of* *traditional knowledge, in research and development, has increased.* | C.0.1 Indicator on monetary benefits received tbc\* | Relevance: Need an indicator  Nationally feasible: NA  Globally feasible with national disaggregation: NA  Readiness: NA  Summary: Relevant, an indicator does not exist  Most Parties stated that indicators on monetary and non-monetary benefits of ABS are needed in the framework. However, an indicator would need to be developed as the indicator does not exist. Some Parties noted the importance of capturing holders of traditional knowledge. |  | c.1. Number of users that have provided information relevant to the utilization of genetic resources to designated checkpoints  c.2. Total number of internationally recognized certificates published in the APB Clearing-House  c.3. Number of checkpoint communiqués published in the ABS Clearing-House  c.4. Number of internationally recognized certificates of compliance for non-commercial purposes |
| C.0.2 Indicator on non-monetary benefits tbc\* | Relevance: Need an indicator  Nationally feasible: NA  Globally feasible with national disaggregation: NA  Readiness: NA  Summary: Relevant, an indicator does not exist  Most Parties stated that indicators on monetary and non-monetary benefits of ABS are needed in the framework. Some Parties noted that such an indicator may not be feasible in the case of non-monetary benefits. Some Parties noted the need to capture equity in this indicator. |
| Goal D The gap between available financial and other means of implementation, and those necessary to achieve the 2050 Vision is closed.  *Milestone D.1 Adequate financial resources to implement the framework are available and deployed, progressively closing the financing gap up to at least US $700 billion per year by 2030.*  *Milestone D.2 Adequate other means, including capacity-building and development, technical and scientific cooperation and technology transfer to implement the framework to 2030 are available and deployed.*  *Milestone D.3 Adequate financial and other resources for the period 2030 to 2040 are planned or committed by 2030.* | D.0.1. Indicators on funding for implementation of the global biodiversity framework [available and ready to use] tbc (aligned with Target 19)\* | Relevance: Need an indicator  Nationally feasible: NA  Globally feasible with national disaggregation: NA  Readiness: NA  Summary: Relevant, an indicator does not exist  Most Parties stated that financial information is needed for goal D. Some Parties noted the need to capture all types of financing, finance planning, subsidies and capacity and technology transfer. |  | d.1. Financial resources captured in the headline indicators for Target 18  d.2. Finance mobilized for capacity‑building  [d.3. Financial and technical assistance provided in dollars (including through South-South, North-South and triangular cooperation)]  d.4. Finance mobilized for promoting the development, transfer, dissemination and diffusion of technology  d.5. Number of scientists per population  d.6. Joint scientific papers published (in Ocean Biodiversity Information System (OBIS)) by sector  d.7. Number of marine monitoring stations  d.8. Number of water quality monitoring stations  d.9. Nationally maintained research vessels  d.10. Proportion of total research budget allocated to research in the field of marine technology  d.11. Volume of official development assistance flows for scholarships by sector and type of study  d.12. Global imports of information and communication technology (ICT) goods as presented by bilateral trade flows by ICT goods categories |
| D.0.2 Indicator on national biodiversity planning processes and means of implementation including IPLC engagement tbc\* | Relevance: Need an indicator  Nationally feasible: NA  Globally feasible with national disaggregation: NA  Readiness: NA  Summary: Relevant, an indicator does not exist  Many Parties suggested an indicator on NBSAP development would be useful. However, such an indicator would need to be developed. |
| Target 1. Ensure that all land and sea areas globally are under integrated biodiversity-inclusive spatial planning addressing land- and sea-use change, retaining existing intact and wilderness areas. | 1.0.1 Indicator of the percentage of land and seas covered by [landscape-level] spatial [plans that integrate] [integral] biodiversity [plans] tbc\* | Relevance: Green/yellow  Nationally feasible: yellow  Globally feasible with national disaggregation: Red  Readiness: Yellow  Summary: Relevant, not fully operational  Many Parties supported having an indicator on spatial planning; however, noted that this indicator would need development. Some Parties suggested this indicator could be a component level indicator. Some Parties noted to the need to capture the issue of habitat loss and land/sea change at the headline level. Some alternative headline indicators were proposed. | 1.2.1 Priority retention of intact / wilderness areas | t1.1. Number of countries using natural capital accounts in planning processes  t1.2. Percentage of spatial plans utilizing information on key biodiversity areas  t1.3. Habitat patches located within marine protected areas or integrated coastal zone management (ICZM)  t1.4. Other spatial management plans (not captured as ICZM or marine spatial planning in 14.2.1)  t1.5. Number of countries using ocean accounts in planning processes  t1.6. Proportion of transboundary basin area with an operational arrangement for water cooperation (SDG indicator 6.5.2)  t1.7. Percent of total land area that is under cultivation |
| Target 2. Ensure that at least 20 per cent of degraded freshwater, marine and terrestrial ecosystems are under restoration, ensuring connectivity among them and focusing on priority ecosystems. | 2.0.1 [Percentage][Area] of degraded [and] [or] converted ecosystems that are under [ecological] restoration | Relevance: Green  Nationally feasible: Yellow/red  Globally feasible with national disaggregation: Red/yellow  Readiness: Yellow/red  Summary: Relevant, not fully operational  Many Parties mentioned the need to capture restoration at the headline level. A few alternative indicators were proposed. | 2.2.1 Maintenance and restoration of connectivity of natural ecosystems | t2.1. Habitat distributional range  t2.2. Index of Species Rarity Sites, High Biodiversity Areas, Large Mammal Landscapes, Intact Wilderness and Climate Stabilization Areas  t2.3. Increase in secondary natural forest cover  t2.4. Annual Tropical Primary Tree Cover Loss  t2.5. Forest Landscape Integrity Index  t2.6. Global Ecosystem Restoration Index  t2.7. Cumulative human impacts on marine ecosystems.  t2.8. Physical damage to seafloor habitats  t2.9. Free flowing rivers  t2.10. Percentage of cropped landscapes with at least 10 % natural land  t2.11. Bioclimatic Ecosystem Resilience Index (BERI) |
| Target 3. Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes. | 3.0.1 [Percentage] [Coverage] of protected areas and OECMS, by effectiveness, [ecosystem type,] [KBA/EBSA status] | Relevance: Green/yellow  Nationally feasible: green/yellow  Globally feasible with national disaggregation: green/yellow  Readiness: green/yellow  Summary: Relevant, mostly ready to use  While Parties noted the importance of tracking protected areas, many Parties stressed the need to capture effectiveness, implementation, representativeness and other aspects of protected area coverage. A few additional indicators were proposed. | 3.2.1 Protected area coverage of key biodiversity areas [and/or ecologically or biologically significant areas](SDG 14.5.1, 15.1.2 and 15.4.1)  3.3.1 Protected Area Management Effectiveness (PAME)  3.4.1 Species Protection Index | t3.1. Protected area downgrading, downsizing and degazettement (PADDD)  t3.2. Status of key biodiversity areas  t3.3. Protected area coverage of key biodiversity areas  t3.4. Protected area coverage of coral reefs  t3.5. IUCN Green List of Protected and Conserved Areas  t3.6. Number of hectares of UNESCO designated sites (natural and mixed World Heritage sites and Biosphere Reserves)  t3.7. Proportion of terrestrial, freshwater and marine ecological regions which are conserved by protected areas or other effective area-based conservation measures  t3.8. Species Protection Index  t3.9. Protected Area Connectedness Index (PARC-Connectedness)  t3.10. Ramsar Management Effectiveness Tracking Tool (R-METT)  t3.11. Number of protected areas that have completed a site-level assessment of governance and equity (SAGE)  t3.12. Number of certified forest areas under sustainable management with verified impacts on biodiversity conservation  t3.13. Percentage of biosphere reserves that have a positive conservation outcome and effective management  t3.14. Extent of indigenous peoples and local communities’ lands hat have some form of recognition |
| Target 4. Ensure active management actions to enable the recovery and conservation of species and the genetic diversity of wild and domesticated species, including through ex situ conservation, and effectively manage human-wildlife interactions to avoid or reduce human-wildlife conflict. | 4.0.1 Proportion of species populations that are affected by human wildlife conflict [requiring intensive recovery due to human wildlife conflict] | Relevance: Yellow  Nationally feasible: Red  Globally feasible with national disaggregation: Red  Readiness: Red  Summary: Medium relevant, not fully operational  Many Parties expressed that the indicators under this target depended on the final wording of the target. Additionally, many Parties expressed that this indicator may not be feasible. | 4.1.1 Green Status of Species Index | t4.1. Species threat abatement and restoration metric  t4.2. IUCN Green Status of Species Index by sub-indicators  t4.3. Changing status of evolutionary distinct and globally endangered species (EDGE Index)  t4.4. Percentage of threatened species that are improving in status.  t4.5. Number of CMS daughter agreements |
| 4.0.2 Number of plant [and animal] genetic resources [for food and agriculture] secured in medium or long-term conservation facilities (SDG 2.5.1) | Relevance: Yellow  Nationally feasible: Yellow  Globally feasible with national disaggregation: Green/yellow  Readiness: Green/yellow  Summary: Medium relevant, mostly ready to use  Many Parties expressed that this indicator would be more relevant with the inclusion of animal resources. This indicator is an existing SDG indicator. Some additional indicators were proposed by Parties for this target. |  |  |
| Target 5. Ensure that the harvesting, trade and use of wild species is sustainable, legal, and safe for human health. | 5.0.1 Proportion of [wildlife] [wild species][wood and plant] that is harvested and traded legally and sustainably | Relevance: Green  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Green/yellow  Summary: Relevant, not fully operational  Many Parties felt this indicator could be operationalized even though it is not available yet. Some additional indicators were proposed. |  | t5.1. Sustainable watershed and inland fisheries index  t5.2. Marine Stewardship Council Fish catch  t5.3. Total catch of cetaceans under International Convention for the Regulation of Whaling  t5.4. By catch of vulnerable and non-target species  t5.5 Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1).  t5.6. Proportion of legal and illegal wildlife trade consisting of species threatened with extinction  t5.7. Illegal trade by CITES species classification  t5.8. Number of countries incorporating trade in their national biodiversity policy  t5.9. The conservation status of species listed in the CITES Appendices has stabilized or improved  t5.10. Implementation of measures designed to minimize the impacts of fisheries and hunting on migratory species and their habitats |
| 5.0.2 Proportion of fish stocks within biologically sustainable levels (SDG 14.4.1) | Relevance: Green  Nationally feasible: Green/yellow  Globally feasible with national disaggregation: Green/yellow  Readiness: Green  Summary: Relevant and ready to use  Parties expressed that this indicator is relevant at the headline level. However, many Parties noted that a broader indicator capturing freshwater fish or other species would be relevant |  |  |
| Target 6. Manage pathways for the introduction of invasive alien species, preventing, or reducing their rate of introduction and establishment by at least 50 per cent, and control or eradicate invasive alien species to eliminate or reduce their impacts, focusing on priority species and priority sites. | 6.0.1 Rate of invasive alien species spread [and rate of impact] | Relevance: Yellow / Green if impact included\*  Nationally feasible: Yellow  Globally feasible with national disaggregation: Green/yellow\*  Readiness: Yellow  Summary: Relevant, mostly ready to use  Some Parties note that this indicator should address the impact of invasive alien species and not only their spread. Alternative indicators were proposed by Parties. | 6.3.1 Rate of invasive alien species impact | t6.1. Number of invasive alien species in national lists as per the Global Register of Introduced and Invasive Species  t6.2. Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species |
| Target 7. Reduce pollution from all sources to levels that are not harmful to biodiversity and ecosystem functions and human health, including by reducing nutrients lost to the environment by at least half, and pesticides by at least two thirds and eliminating the discharge of plastic waste. | 7.0.1 Index of coastal eutrophication potential (excess nitrogen and phosphate loading, exported from national boundaries) [by waterbody][by basin] (SDG 14.1.1a) | Relevance: Green/yellow  Nationally feasible: Green/yellow  Globally feasible with national disaggregation: Green/yellow  Readiness: Green  Summary: Medium relevant and mostly ready to use  Some Parties felt that this indicator missed key aspects of eutrophication, including impacts on terrestrial ecosystems and proposed additional or alternative indicators. Other Parties felt that this indicator should be included at the headline level. | 7.1.1 Fertilizer use  7.1.2 Proportion of domestic and industrial wastewater flow safely treated (SDG 6.3.1)  7.4.1 Municipal solid waste collected and managed (SDG 11.6.1)  7.4.2 Underwater noise pollution  7.4.3 Hazardous waste generation (SDG 12.4.2) | t7.1 Trends in Loss of Reactive Nitrogen to the Environment. |
| 7.0.2 Floating plastic debris density [by micro and macro plastics] (SDG 14.1.1b) | Relevance: Yellow  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Yellow  Summary: Medium relevant, not fully operational  Some Parties felt that other indicators related to impacts or other aspects of pollution would be better suited for use at the headline level. Other Parties supported the use of this indicator. |
| 7.0.3 [Most hazardous] Pesticide [use] [load] [per area of cropland] | Relevance: Red/yellow  Nationally feasible: Yellow  Globally feasible with national disaggregation: Red  Readiness: Yellow  Summary: Less relevant, not fully operational  While many Parties noted the need for either one indicator or a number of indicators to capture different types of pollution, many Parties noted that this indicator would not capture the impacts on biodiversity and that alternative indicators were needed Some Parties suggested that perhaps an alternative indicator which captures all of target 7 could be identified. |
| Target 8. Minimize the impact of climate change on biodiversity, contribute to mitigation and adaptation through ecosystem-based approaches, contributing at least 10 GtCO2e per year to global mitigation efforts, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity. | 8.0.1 National [net] green-house[emissions] [gas inventories] from land use and land use change [by land use and land use change category, subcategory, [and] natural/modified] | Relevance: High/low  Nationally feasible: Green/yellow  Globally feasible with national disaggregation: Green/yellow  Readiness: Green  Summary: Relevance cannot be assessed until the target is agreed.  Many Parties noted that the indicator on this target will need to align with the final wording of the target. Some Parties were supportive of this indicator. However, some Parties did not believe that it was relevant to biodiversity and/or was outside the scope of the Convention. Several alternative indicators were suggested | 8.1.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications that reflect biodiversity (based on information from UNFCCC and SDG 13.2.1)  8.2.1. Total climate regulation services provided by ecosystems by ecosystem type (System of Environmental Economic Accounts)  8.3.1 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 which include biodiversity (based on SDG 13.2.1) | t8.1. Above-ground biomass stock in forest (tonnes/ha)  t8.2. Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 (SDG indicator 13.1.2)  t8.3. Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies (SDG indicator 13.1.3)  t8.4. Number of least developed countries and small island developing States with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications (SDG indicator 13.b.1) |
| Target 9. Ensure benefits, including nutrition, food security, medicines, and livelihoods for people especially for the most vulnerable through sustainable management of wild terrestrial, freshwater and marine species and protecting customary sustainable use by indigenous peoples and local communities. | 9.0.1 National environmental-economic accounts of benefits from the use of wild species | Relevance: Yellow  Nationally feasible: Yellow/Red\*  Globally feasible with national disaggregation: Yellow  Readiness: Yellow/Red  Summary: Medium relevant, not fully operational  A number of Parties noted that this indicator would be difficult to operationalize at the national level and that an alternative indicator may be useful. Several alternative indicators were suggested | 9.1.1 Number of people using wild resources for energy, food or culture (including firewood collection, hunting and fishing, gathering, medicinal use, craft making, etc.)  9.1.2 Percentage of the population in traditional employment (ILO)  9.1.3 Spawning stock biomass (related to commercially exploited species) | t9.1. Proportion of fish stocks within biologically sustainable levels (SDG indicator 14.4.1)  t9.2. Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1)  t9.3. Spawning stock biomass (related to commercially exploited species)  t9.4. Number of plant and animal genetic resources for food and agriculture secured in medium- or long-term conservation facilities (SDG indicator 2.5.1)  t9.5. Red List Index (species used for food and medicine)  t9.6. Volume of production per labour unit by classes of farming/pastoral/ forestry enterprise size (SDG indicator 2.3.1) |
| Target 10. Ensure all areas under agriculture, aquaculture and forestry are managed sustainably, in particular through the conservation and sustainable use of biodiversity, increasing the productivity and resilience of these production systems. | 10.0.1 Proportion of agricultural area under productive and sustainable agriculture (add SDG 2.4.1) | Relevance: Green  Nationally feasible: Green  Globally feasible with national disaggregation: Green/yellow\*  Readiness: Green/yellow  Summary: Relevant, near ready to use  The use of this SDG indicator as a headline level was supported by most Parties. | 10.1.1. Average income of small-scale food producers, by sex and indigenous status (SDG indicator 2.3.2)  10.3.1 Area of forest under sustainable management: total forest management certification by Forest Stewardship Council and Programme for the Endorsement of Forest Certification | t10.1. Changes in soil organic carbon stocks  t10.2. Red List Index (wild relatives of domesticated animals)  t10.3. Red List Index (pollinating species)  t10.4. Proportion of local breeds classified as being at risk of extinction  t10.5. Progress towards sustainable forest management (SDG indicator 15.2.1) |
| 10.0.2 Progress towards sustainable forest management (Proportion of forest area under a long-term forest management plan) (add SDG 15.2.1(4)) | Relevance: Green  Nationally feasible: Green  Globally feasible with national disaggregation: Green/yellow\*  Readiness: Green/yellow  Summary: Relevant, near ready to use  The use of this SDG indicator as a headline level was supported by most Parties. Some Parties suggested some further disaggregation of elements. |
| Target 11. Maintain and enhance nature’s contributions to regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people. | 11.0.1 National environmental-economic accounts of regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people, [from ecosystems][to maintain or increase relevant ecosystem services] | Relevance: Yellow  Nationally feasible: Yellow/Red\*  Globally feasible with national disaggregation: Yellow  Readiness: Yellow  Summary: Medium relevant, not fully operational  A number of Parties noted that this indicator would be difficult to operationalize at the national level and that an alternative indicator may be useful. | 11.1.1 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (SDG 11.6.2)  11.1.2 Mortality rate attributed to household and ambient air pollution (SDG indicator 3.9.1)  11.2.1 Proportion of bodies of water with good ambient water quality (SDG 6.3.2)  11.2.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) (SDG indicator 3.9.2)  11.2.3 Level of water stress (SDG 6.4.2)  11.2.1. Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1) | t11.1. Air emission accounts  t11.2. Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management (SDG indicator 6.b.1)  t11.3. Proportion of population using safely managed drinking water services (SDG indicator 6.1.1) |
| Target 12. Increase the area of, access to, and benefits from green and blue spaces, for human health and well-being in urban areas and other densely populated areas. | 12.0.1 Average share of the built-up area of cities that is green/blue space for public use for all (SDG 11.7.1) | Relevance: Yellow  Nationally feasible: Yellow  Globally feasible with national disaggregation: Green/yellow\*  Readiness: Yellow  Summary: Medium relevant, not fully operational  Many Parties expressed that this indicator may not be the most relevant for the target. However, other Parties noted its use in the SDG process. Some supported the indicator at the component level. A number of Parties suggested the Cities Biodiversity Index. | 12.2.1 National environmental-economic accounts of recreation and cultural services |  |
| Target 13. Implement measures at global level and in all countries to facilitate access to genetic resources and to ensure the fair and equitable sharing of benefits arising from the use of genetic resources, and as relevant, of associated traditional knowledge, including through mutually agreed terms and prior and informed consent. | 13.0.1 [Percentage of countries that have] [Indicator[s] of] operational legislative, administrative or policy frameworks which [facilitate access to and] ensure fair and equitable sharing of benefits[, including those based on PIC and MAT] [shared in the ABS Clearing-House] tbc\* | Relevance: Green\*  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Green\*  Summary: Relevant, not fully operational  While this indicator would need to be developed, most Parties supported having an indicator on this topic noting that the final wording and methodology would need to be developed. Parties suggested a number of alternative indicators | 13.1.1. Number of permits or their equivalents for genetic resources (including those related to traditional knowledge) by type of permit | t13.1. 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  t13.2. Total number of permits, or their equivalent, granted for access to genetic resources  t13.3. Total number of internationally recognized certificates of compliance published in the ABS Clearing-House  t13.4. 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  t13.5. Number of countries that require prior informed consent that have published information on ABS procedures in the ABS Clearing-House  t13.6. Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits (SDG Indicator 15.6.1)  t13.7. Estimated percentage of monetary and non-monetary benefits directed towards conservation and sustainable use of biodiversity |
| Target 14. Fully integrate biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies, accounts, and assessments of environmental impacts at all levels of government and across all sectors of the economy, ensuring that all activities and financial flows are aligned with biodiversity values. | 14.0.1 Extent to which national targets [have been adopted] for integrating biodiversity values [as cornerstones for implementation] into policies, regulations, planning, development processes, poverty reduction strategies [and accounts] [are established] at all levels, ensuring that biodiversity values are mainstreamed across all sectors and integrated into assessments of environmental impacts | Relevance: Green/yellow\*  Nationally feasible: Green  Globally feasible with national disaggregation: Yellow\*  Readiness: Green  Summary: Relevant not fully operational  Some Parties expressed support and noted its link to the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. Some Parties proposed that the indicator would be acceptable with some modifications, but some Parties did not support the use of the indicator. | 14.3.1 Existing legislation for environmental impact assessment  Tbc (will align with the Task Force for Nature-related Financial Disclosures) | t14.1. Human Appropriation of Net Primary Production (HANPP)  t14.2. Number of MSC Chain of Custody Certification holders by distribution country |
| 14.0.2 [Number of countries with] Implementation of the System of Environmental-Economic Accounting [(SDG 15.9.1b)] | Relevance: Yellow\*  Nationally feasible: Green  Globally feasible with national disaggregation: Yellow\*  Readiness: Green  Summary: Medium, not fully operational  Some Parties noted that this indicator could be moved to the component level or revised in order to be more relevant. Other Parties supported using SDG indicator 15.9.1b. |  |  |
| Target 15. All businesses (public and private, large, medium and small) assess and report on their dependencies and impacts on biodiversity, from local to global, and progressively reduce negative impacts, by at least half and increase positive impacts, reducing biodiversity-related risks to businesses and moving towards the full sustainability of extraction and production practices, sourcing and supply chains, and use and disposal. | 15.0.1 [Number of companies assessing and reporting on their][Quantified volumes of ] Dependencies [and] impacts[, risks and opportunities] of businesses on biodiversity [and related human rights] | Relevance: Green  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Red  Summary: Relevant, not fully operational  Most Parties felt that an indicator on dependencies and impacts was relevant; however, such an indicator would need to be further defined and elaborated. Parties suggested a number of adjustments to the indicator and/or alternative indicators | Tbc (will align with the Task Force for Nature-related Financial Disclosures)  15.4.1 Ecological footprint  15.4.2 Recycling rate | t15.1. CO2 emission per unit of value added (SDG indicator 9.4.1)  t15.2. Change in water-use efficiency over time (SDG indicator 6.4.1) |
| Target 16. Ensure that people are encouraged and enabled to make responsible choices and have access to relevant information and alternatives, taking into account cultural preferences, to reduce by at least half the waste and, where relevant the overconsumption, of food and other materials. | 16.0.2 Material footprint per capita (SDG 8.4.1/12.2.1) | Relevance: Yellow  Nationally feasible: Green/yellow  Globally feasible with national disaggregation: Green/yellow  Readiness: Green  Summary: Mostly relevant and ready to use  While this indicator is available through the SDG process, some Parties noted that a more relevant indicator could be selected. A number of Parties suggested the ecological footprint or other indicators. | *(15.4.2 Recycling rate)* |  |
| 16.0.1 Food waste index (SDG 12.3.1b) | Relevance: Yellow  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Yellow  Summary: Mostly relevant, not fully operational  Some Parties suggested that additional indicators on waste or other aspects of the target should be captured and that this could be a component indicator. Other Parties supported the use of this indicator at the headline level. A number of alternative indicators were proposed for this target. |
| Target 17. Establish, strengthen capacity for, and implement measures in all countries to prevent, manage or control potential adverse impacts of biotechnology on biodiversity and human health, reducing the risk of these impacts. | 17.0.1 Indicator of [capacity and] measures in place to [prevent] manage [or] [and control] potential [adverse] impacts of [LMOs and other products from the sustainable use of biodiversity] [LMOS resulting from modern] biotechnology on biodiversity taking into account [conservation] [cultural and social economic considerations and] human health [and environment safety] tbc\* | Relevance: Green/yellow  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Yellow  Summary: Relevant, not fully operational  While this indicator would need to be developed, most Parties supported having an indicator on this topic noting that the final wording and methodology would need to be developed. Many Parties suggested changes to the wording of this indicator. | 17.1.1 Number of countries that carry out scientifically sound risk assessments to support biosafety decision-making  17.1.2 Number of countries that establish and implement risk management measures  1.7.1.3 Percentage of countries with mechanisms to facilitate the sharing of and access to information on potential adverse impacts of biotechnology on biodiversity and human health  17.1.4 Percentage of counties with systems in place for restoration and compensation of damage to conservation and sustainable use of biological diversity | t17.1. Number of countries that have the necessary biosafety legal and administrative measures in place  t17.2. Number of countries that implement their biosafety measures  t17.3. Number of countries that have the necessary measures and means for detection and identification of products of biotechnology  t17.4. Number of countries that carry out scientifically sound risk assessments to support biosafety decision-making  t17.5. Number of countries that establish and implement risk management measures  t17.6. Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol  t17.7. Number of countries with legal and technical measures for restoration and compensation  t17.8. Percentage of Parties to the Nagoya – Kuala Lumpur Supplementary Protocol implementing the relevant provisions of the Supplementary Protocol |
| Target 18. Redirect, repurpose, reform or eliminate incentives harmful for biodiversity, in a just and equitable way, reducing them by at least US$ 500 billion per year, including all of the most harmful subsidies, and ensure that incentives, including public and private economic and regulatory incentives, are either positive or neutral for biodiversity. | 18.0.1 [Percentage reduction in] [Value of] subsidies and other incentives harmful to biodiversity, that are [redirected, repurposed or][consistent with WTO rules] [or] eliminated [as a proportion of total subsidies] | Relevance: Green  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Yellow  Summary: Relevant, not fully operational  Many Parties noted the need for an indicator on both subsidies and positive incentives. Many Parties suggested the use of the indicator 18.1.1 The OECD noted that the correct wording of this indicator and this is reflected. A number of other indicators were suggested. | 18.1.1 [Positive incentives] [Economic incentives in place to promote biodiversity conservation and sustainable use] | t18.1. Number of countries with biodiversity-relevant taxes  t18.2. Number of countries with biodiversity-relevant charges and fees  t18.3. Number of countries with biodiversity-relevant tradable permit schemes  t18.4. Trends in potentially environmentally harmful elements of government support to agriculture (producer support estimate)  t18.5. Trends in the number and value of government fossil fuel support measures  t18.6. Amount of fossil-fuel subsidies per unit of GDP (production and consumption) (SDG indicator 12.c.1) |
| Target 19. Increase financial resources from all sources to at least US$ 200 billion per year, including new, additional and effective financial resources, increasing by at least US$ 10 billion per year international financial flows to developing countries, leveraging private finance, and increasing domestic resource mobilization, taking into account national biodiversity finance planning, and strengthen capacity-building and technology transfer and scientific cooperation, to meet the needs for implementation, commensurate with the ambition of the goals and targets of the framework. | 19.0.1 Official development assistance for biodiversity (SDG 15.a.1) | Relevance: Green  Nationally feasible: Green  Globally feasible with national disaggregation: Green  Readiness: Green  Summary: Relevant and ready to use  This indicator was supported by most Parties. However, a number of Parties noted the need to capture domestic and international public and private expenditure, either as a single indicator disaggregated by domestic/international and public/private or as four indicators. Some alternative indicators were proposed. |  | t19.1. Amount of funding provided through the Global Environment Facility and allocated to the biodiversity focal area (decision X/3)  t19.2. Amount and composition of biodiversity-related finance reported to the OECD Creditor reporting system  t19.3. Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries  t19.4. Dollar value of all resources made available to strengthen statistical capacity in developing countries (SDG indicator 17.19.1)  t19.5. Amount of biodiversity-related philanthropic funding  t19.6. Proportion of total research budget allocated to research in the field of marine technology  t19.7. Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies (SDG indicator 17.7.1) |
| 19.0.2 Public [funding] [expenditure] and private [funding] [expenditure] on conservation and sustainable use of biodiversity and ecosystems [as well as development and access to innovation, technology transfer and research on innovation] | Relevance: Green  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow/Red  Readiness: Yellow  Summary: Relevant, not fully operational  While Parties noted that this indicator is less feasible, especially for private funding, most Parties expressed support for capturing these elements of funding. |
| Target 20. Ensure that relevant knowledge, including the traditional knowledge, innovations and practices of indigenous peoples and local communities with their free, prior, and informed consent, guides decision‑making for the effective management of biodiversity, enabling monitoring, and by promoting awareness, education and research. | 20.0.1 Indicator on biodiversity information and monitoring, including traditional knowledge [with FPIC][and scientific knowledge], for management tbc\* | Relevance: Green  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Green  Summary: Relevant, not fully operational  While this indicator would need to be developed, most Parties supported having such an indicator on information and monitoring, including on traditional knowledge. Some additional indicators were proposed. | 20.2.1 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 (SDG 4.7.1) | t20.1. Growth in number of records and species in the Living Planet Index database  t20.2. Growth in marine species occurrence records accessible through OBIS\*  t20.3. Proportion of known species assessed through the IUCN Red List.  t20.4. Number of assessments on the IUCN Red List of threatened species  t20.5. World Association of Zoos and Aquariums (WAZA) bio-literacy survey (Biodiversity literacy in global zoo and aquarium visitors) |
| Target 21. Ensure equitable and effective participation in decision-making related to biodiversity by indigenous peoples and local communities, and respect their rights over lands, territories and resources, as well as by women and girls, and youth. | 21.0.1 [Mechanisms for the full, equitable participation of] [Indicator on [the degree to which]] indigenous peoples and local communities [respecting all their rights in particular of land, waters and resources], women and girls [in all their diversity] as well as youth [and human rights defenders] participate[ion] in decision-making related to biodiversity tbc | Relevance: Green  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Yellow  Summary: Relevant, not fully operational  Parties noted that this indicator would need to be defined and proposed a number of changes to the indicator wording. Some alternative indicators were proposed. |  | t21.1. Percentage of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group (SDG indicator 16.7.2).  t21.2. Percentage 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  t21.3. Proportion of seats held by women in (a) national parliaments and (b) local governments (SDG indicator 5.5.1)  t21.4. Number of countries with systems to track and make public allocations for gender equality and women’s empowerment (SDG indicator 5.c.1)  t21.5. (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure  t21.6 Number of countries where the legal framework (including customary law) guarantees women’s equal rights to land ownership and/or control |
|  | 21.0.2 [Land use change and] Land tenure [in the traditional territories] of indigenous peoples and local communities [by sex and type of tenure] | Relevance: Green  Nationally feasible: Yellow  Globally feasible with national disaggregation: Yellow  Readiness: Yellow  Summary: Relevant, not fully operational  Many Parties suggested the use of land use and land tenure indicators for target 21 and other targets across the framework. Noting that indicator would require further work to be fully operational. |  |

*Appendix 2*

# List of proposed indicators for potential inclusion as headline indicators for the post-2020 global biodiversity framework

**Table 1. Alternative or additional indicators suggested for draft Goals**

|  |  |  |
| --- | --- | --- |
| **1. Draft Goal** | **2. Indicator proposed from the Contact Group** | **3. Links to previous non-paper and the SDG framework** |
| A | Change in the extent of water-related ecosystems over time | Complementary indicator a.11 (SDG indicator 6.6.1) |
| Comprehensiveness of conservation of socioeconomically as well as culturally valuable species. | Complementary indicator a.51 |
| Conservation status of migratory species (disaggregated from existing indices), as a proxy indicator of connectivity (CMS Indicator) | Component indicator A.2.1 |
| Ecosystem Integrity Index | Component indicator A.3.1 |
| Ecosystem Intactness Index | Component indicator A.32 |
| Changing status of evolutionary distinct and globally endangered species (EDGE Index) | Complementary indicator a.40 |
| Forest area as a proportion of total land area | Complementary indicator a.1 (SDG indicator 15.1.1) |
| Live coral cover in restored coral reef areas. | Complementary indicator a.13 |
| Living Planet Index (LPI) | Component indicator A.4.2 |
| Marine habitat indicator |  |
| Proportion of populations maintained within species | Component indicator A.8.1 |
| Red list of Ecosystems | Complementary indicator a.8. |
| UN SEEA on ecosystem condition  Proportion of genetically distinct populations maintained within species.  Extent of selected natural ecosystems (i.e. forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats)  Extent of selected semi-natural ecosystems (i.e. forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats)  Extent of selected modified ecosystems (i.e. forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats)  Extent of sustainably managed ecosystems  UN SEEA ecosystem condition  Ecosystem intactness index and connectivity  The proportion of genetically distinct populations maintained within species |  |
| B | Change in the extent of water-related ecosystems over time | Complementary indicator (SDG indicator 6.6.1) |
| Ecological footprint | Component indicator 15.4.1 |
| Expected loss of Phylogenetic Diversity | Complementary indicator b.1 (IPBES assessment phylogenetic diversity indicator) |
| National and local level implementation on customary and sustainable use |  |
| Number of countries with national constitution or legislation recognizing a right to a healthy environment |  |
| Percentage of use of biological diversity that is sustainable |  |
| Processes and tools to monitor the implementation of a right to a healthy environment (e.g., included in NBSAPs and reported in national reports) |  |
| Sustainable agricultural production | Headline indicator 10.0.1 Proportion of agricultural area under productive and sustainable agriculture (SDG indicator 2.4.1) |
| Progress towards sustainable forest management (Proportion of forest area under a long-term forest management plan) | Headline indicator 10.0.2 (SDG indicator 15.2.1) |
| C | Amount of monetary benefits received under access and benefit-sharing agreements and - allocated to conservation and sustainable use of biodiversity  Amount of monetary benefits received under specialized ABS instruments |  |
| Amount of monetary benefits received by countries from the utilization of genetic resources and their derivatives, as result of an access and benefit-sharing agreement, including its associated traditional knowledge and innovations |  |
| Amount of monetary benefits received by countries from the utilization of genetic resources and their derivatives, channelled to indigenous peoples and local communities for their stewardship of biodiversity |  |
| Amount of non-monetary benefits generated under access and benefit-sharing agreements |  |
| Amount of non-monetary benefits generated under other specialized agreements, |  |
| Amount of non-monetary benefits generated for implementation of the SDGs |  |
| Fairness and equity of the allocation of benefits |  |
| Indicator on participation of holders of indigenous knowledge regarding the use of access and benefit sharing |  |
| Indicators of operational legislative, administrative or policy frameworks which ensure fair and equitable sharing of benefits, including those based on prior informed consent and mutually agreed terms | Headline indicator 13.0.1 |
| Non-monetary benefits generated under access and benefit‑sharing agreements |  |
| Number of applications for prior informed consent and mutually agreed terms |  |
| Number of consulted and benefited communities through APV |  |
| Number of joint research papers from access and benefit sharing agreements contributing to conservation and sustainable use |  |
| Number of non-monetary benefits shared under access and benefit sharing agreements as a result of utilization of genetic resources, their derivatives and its associated traditional knowledge, practices and innovations, aimed at the conservation and sustainable use of biodiversity, human well-being, and the strengthening of technical, scientific and human capabilities of Parties |  |
| Technical transfer related to access and benefit‑sharing indicator |  |
| D | Alignment of all public and private financial flows with the goals and targets of the global biodiversity framework |  |
| Efficient use of financial resources for biodiversity |  |
| Funding for implementation of the global biodiversity framework available and ready to use |  |
| Funding for implementation of the global biodiversity framework from all sources |  |
| Indicator on capacity |  |
| Indicator on subsidies |  |
| Indicator related to equity |  |
| Number of countries with National Biodiversity Finance Plans |  |
| National and local implementation of the Global Plan of Action on Customary Sustainable Use |  |
| Number of Parties that have processes and tools to measure the right to a healthy environment |  |

**Table 2. Alternative or additional headline indicators suggested for draft targets 1 – 21.**

|  |  |  |
| --- | --- | --- |
| **1. Draft Target** | **2. Proposed alternative or additional headline indicator** | **3. Links to previous non-paper and the SDG framework** |
| 1 | Area covered by land and sea use change that is negatively affecting biodiversity |  |
| Extent of selected natural and modified ecosystems (i.e. forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae, intertidal habitats and alpine habitats) | Headline indicator A.0.1. |
| Habitat loss due to land and sea-use change |  |
| Status and trends in land-use change and land tenure in the traditional territories of indigenous peoples and local communities |  |
| 2 | Global Ecosystem Restoration Index | Complementary indicator T2.6. |
| Percentage of area of degraded or converted carbon-rich ecosystems that are under ecological restoration |  |
| 3 | Coverage and effectiveness of protected areas and other effective area-based conservation measures |  |
| Coverage and effectiveness of protected areas and other effective area-based conservation measures including extent to which they prohibit harmful activities |  |
| Coverage of protected areas and other effective area-based conservation measures in accordance with the human rights approach  Coverage of protected areas and other effective area-based conservation measures and traditional territories (by governance type)  Diversity of governance types and effectiveness in biodiversity conservation  Number of countries implementing national legislation, policies or other measures regarding free, prior and informed consent related to conservation |  |
| Extent of IPLC land and waters that have a form of recognition of tenure | Headline indicator 21.0.1 Indicator on the degree to which indigenous peoples and local communities, women and girls as well as youth participate in decision-making related to biodiversity |
| Indicator associated with The Global Standard for the IUCN Green List of Protected and Conserved Areas | Complementary indicator: t3.5. IUCN Green List of Protected and Conserved Areas |
| Indicator on protected area governance | Complementary indicator 3.11. Number of protected areas that have completed a site-level assessment of governance and equity (SAGE) |
| Number of people who receive training on human rights in relation to protected and conserved areas |  |
| Protected Area coverage of Key Biodiversity Areas | Component indicator: 3.2.1 (SDG indicators 14.5.1 and 15.1.2) |
| Protected Area Management Effectiveness (PAME) (Protected Planet) | Component indicator 3.3.1 |
| Protected Connected (Protconn) index | Component indicator 3.1.4. |
| Species Protection Index | Component indicator 3.4.1 Species Protection Index |
| The number of people to with increased awareness of their rights. | Complementary indicator Goal b.27. Index of development of the standard- setting framework for the protection and promotion of culture, cultural rights and cultural diversity |
| 4 | Green Status of Species Index | Component Indicator 4.1.1 |
| Human wildlife conflict indicator | Headline indicator 4.0.1 Proportion of species populations that are affected by human wildlife conflict |
| Number of plant and animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities | Complementary indicator t9.4. Number of plant and animal genetic resources for food and agriculture secured in medium- or long-term conservation facilities (SDG indicator 2.5.1) |
| Proportion of genetically distinct populations within species with a genetically effective population size > 500  Proportion of genetically distinct populations maintained within species. | Headline indicator A.0.4 |
| Proportion of species populations known to be negatively affected by human-wildlife conflict that have recovered |  |
| Proportion of species requiring intensive recovery actions to avoid extinction that are under active recovery management |  |
| Red List Index | Headline indicator A.0.3 (SDG Indicator 15.5.1) |
| 5 | Adoption of measures to reduce illegal use |  |
| Extent to which commercial exploitation and domestic and international trade threatens human or animal health |  |
| Extent to which legal, illegal or otherwise permitted trade or use of wildlife (terrestrial and marine species) is ecologically sustainable |  |
| Living Planet Index | Component Indicator A.4.2 |
| Proportion of local breeds classified as being at risk of extinction | Complementary indicator a.53. SDG indicator 2.5.2) |
| Proportion of traded wildlife that was poached or illicitly trafficked | Component indicator 5.2.1. (SDG indicators 15.7.1 and 15.c.1) |
| Proportion of wildlife (terrestrial and marine species) that are used of exploited in any way that is illegal, including illegal domestic and international trade | Component indicator 5.2.1.(SDG indicators 15.7.1 and 15.c.1) |
| Red list index on impacts of use | Headline indicator A.0.3 (SDG Indicator 15.5.1) |
| Red list index on the impacts of fisheries | Headline indicator A.0.3 (SDG Indicator 15.5.1) |
| Red List of the conservation status and trends for species that are or may be exploited commercially, including, but not limited to, those potentially in international trade, and the inclusion of species on the CITES and CMS Appendices as headline indicators | A.0.3 Red List Index (for internationally traded species and for migratory species) (SDG indicator 15.5.1.) |
| Sustainability of use of all species |  |
| The adoption of legislation and regulations to prohibit trade and markets in certain taxonomic groups, like birds and mammals (due to the nature of the risk of pathogen spill over, that cannot be measured on a species-by-species basis). |  |
| Tonnage or number of individuals of wildlife that is harvested and traded illegally and unsustainably | Headline indicator 5.0.1 |
| Zoonotic diseases in wildlife | Complementary indicator Goal b.6. |
| 6 | Extent to which measures are in place and implemented to address invasive alien species |  |
| Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species | Complementary indicator t5.2 (SDG indicator 15.8.1) |
| Rate of introductions, spread and impact of alien invasive species | Component indicator 6.1.1. Numbers of invasive alien species introduction events |
| Red List Index (impacts of invasive alien species) | Component Indicator 6.3.3, SDG Indicator 15.5.1 |
| Trends in pathway management of invasive alien species |  |
| Trends in the impacts of invasive alien species on native species and protected areas | 6.3.3. Red List Index (impacts of invasive alien species) |
| Trends in the numbers of invasive alien species introduction events | Component indicator 6.1.1. Numbers of invasive alien species introduction events |
| 7 | Amount and risks from microplastics in water |  |
| Critical loads / toxic of nutrification and atmospheric nitrogen deposition |  |
| Eutrophication of terrestrial, coastal and marine waters |  |
| Impacts of light and noise pollution |  |
| Impact of pollution on biodiversity and ecosystem functions as identified in the IUCN Red List Index of Ecosystems and the IUCN Red List of Threatened Species |  |
| Name, amount/volume/concentration of highly hazardous pesticides by type (per land/marine area) |  |
| Number of countries that have phased out highly hazardous pesticides |  |
| Percentage of Parties that establish and implement risk management and mitigation measures that mitigate offsite movement of chemicals, that are harmful to the environment, to edge-of-field waterbodies and terrestrial habitats |  |
| Proportion of land at or below critical nitrogen deposition load levels |  |
| Red List Index | A.0.3 Red List Index (SDG indicator 15.5.1.) |
| Red List of Ecosystems Index | Complementary indicator a.8. |
| Toxicity or toxic load of pesticides |  |
| Use and risk of pesticide indicator (by risk category for biodiversity) |  |
| 8 | Bioclimatic Ecosystem Resilience Index | Complementary indicator a.30 and t.2.11 |
| Carbon stock in natural habitats by habitat type |  |
| Contribution of intact ecosystems to carbon storage |  |
| Indicator on impact of climate change on biodiversity |  |
| Indicator on measuring the minimization of impact of climate change on biodiversity |  |
| Land use change and land tenure in the traditional territories of indigenous peoples and local communities by sex and type of tenure |  |
| Number of countries implementing safeguard policies on biodiversity and finance |  |
| Number of countries that have integrated biodiversity into Nationally Determined Contributions |  |
| Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications that reflect biodiversity (based on information from UNFCCC) | Component indicator 8.1.1 (SDG indicator 13.2.1) |
| Number of ecosystem-based adaptation (EBA) initiatives in NBSAPs |  |
| Number of endemic and priority species vulnerable to climate change |  |
| Number of initiatives and partnerships with indigenous peoples and local communities contributing to Nationally Determined Contributions and Disaster Risk Reduction strategies |  |
| Percentage of agricultural system that are positive for the climate |  |
| Restoration of carbon rich habitats |  |
| Sequestration of carbon by blue carbon initiatives |  |
| Status and trends in land-use change and land tenure in the traditional territories of indigenous peoples and local communities; |  |
| Trends in extent and condition of carbon rich ecosystems or areas providing carbon sequestration |  |
| 9 | Measures of progress of implementation of the Tasks in the Plan of Action on Customary Sustainable Use of Biodiversity |  |
| Number of national instruments established to address or combat illegal, unreported and unregulated fishing | Complementary indicator t5.5 Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1). |
| Number of people using wild resources for energy, food, or culture |  |
| Number of species and habitats under sustainable management |  |
| Proportion of fish stocks within biological sustainable levels | Headline indicator 5.0.2 (SDG indicator 14.4.1) |
| Red List Index | Headline indicator A.0.3, SDG 15.5.1 |
| Status and trends in the practice of traditional occupations labour statistics | Component indicator d9.1.2 Percentage of the population in traditional employment |
| Trends in harvested species under biologically sustainable levels | Headline indicator 5.0.1 Proportion of wildlife that is harvested and traded legally and sustainably |
| Trends in in conservation status of vulnerable species |  |
| Zoonotic and human-animal interface index |  |
| 10 | Average income of small-scale food producers, by sex and indigenous status | (SDG indicator 2.3.2) |
| Proportion of land that is degraded over total land area | Component indicator 10.4.2 (SDG indicator 15.3.1) |
| Area dedicated to agroecology and other biodiversity conservation and restoration plans |  |
| Area incorporated into restoration, conservation and sustainable land use programs |  |
| Area managed under organic and sustainable forestry certification schemes | Complementary indicator t3.12. Number of certified forest areas under sustainable management with verified impacts on biodiversity conservation |
| Areas under sustainable management in all sectors |  |
| Number of non-timber exploitation permits. |  |
| Progress towards sustainable forest management | Complementary indicator t10.5. (SDG indicator 15.2.1) |
| Use of agro-biodiversity-supportive practices |  |
| Proportion of new conversion of land from natural to cultivated areas |  |
| Proportion of productive area with targeted environmental safeguard for biodiversity |  |
| Wildlife habitat capacity within agricultural landscapes |  |
| 11 | Indicators on nature-based solutions |  |
| The share of investments made in development projects to promote ecosystem-based approaches to improve air and water quality and protection against risks |  |
| Trends in loss of land |  |
| Trends in water quality and quantity | Complementary indicator t.11. Change in the extent of water-related ecosystems over time (SDG indicator 6.6.1) |
| Trends of ecosystem areas providing regulation ecosystem services (to be decomposed by ecosystem services and ecosystems |  |
| 12 | City Biodiversity Index (Singapore Index) |  |
| Structural and functional connectivity of urban areas |  |
| 13 | Number of prosecutions from biopiracy, or illegal access to genetic resources |  |
| 14 | Dependencies and impacts of businesses on biodiversity | Headline indicator 15.0.1 |
| Number of policies in sectors other than biodiversity that integrate biodiversity values and priorities |  |
| Number or share of countries, local government and private companies integrating biodiversity and ecosystem service into their policy action plans of environmental management system (i.e. ISO 14001) or commitments relevant to concrete actions |  |
| The number of countries that adopt nature positive sectoral plans of action |  |
| The number of countries that apply a whole-of-government and whole-of-society approach for the development, reviews, and implementation of the NBSAPs |  |
| Value of subsidies and other incentives harmful to biodiversity, that are redirected, repurposed or eliminated  Proportion of policies, regulations, planning, budgeting, development processes, poverty reduction strategies, and national accounts at all levels that integrate biodiversity targets to ensure mainstreaming biodiversity values across all sectors. | Headline indicator 18.0.1 |
| 15 | Dependencies and impacts of businesses on biodiversity and related human rights |  |
| Ecological footprint | Component indicator 15.4.1 |
| Extent of natural vegetation/terrestrial ecosystems converted due to commodity/soft production |  |
| Indicator on dependencies, impacts, risks, and opportunities from the Taskforce on Nature-related Financial Disclosures (TNFD) |  |
| Number of companies assessing and reporting on their net impact on biodiversity |  |
| Number of companies publishing sustainability reports | (SDG Indicator 12.6.1.) |
| Number of companies that comply with access and benefit‑sharing requirements and report on these |  |
| Number of countries that have legislation to make sure that companies report on their impacts |  |
| Number of production sectors in each country that use biodiversity includes certification schemes or biodiversity practice guidelines |  |
| Percentage of Parties that have regulatory frameworks that require businesses to assess and report their impact on biodiversity and on the rights of indigenous peoples and local communities |  |
| Policies and measures in place that prevent and regulate impacts on biodiversity and biodiversity related human rights. |  |
| Proportion of total revenue, of business (a) assessing and disclosing material biodiversity impacts and dependencies of their operations and supply chains through quantitative metrics; (b) having set science-based targets for nature; and (c) having set science-based targets for climate |  |
| Proportion per total revenue of total businesses reporting dependencies and impacts for biodiversity and having set science-based targets for nature |  |
| 16 | Biodiversity Barometer |  |
| Ecological footprint | Component indicator 15.4.1 |
| 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 | Component indicator 20.2.1 (SDG indicator 4.7.1) |
| Global environmental impacts of consumption |  |
| (a) Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment | Component 7.1.2 Proportion of domestic and industrial wastewater flow safely treated (SDG indicator 6.3.1) |
| Land footprint per kilogram of protein |  |
| Number of CITIES permits for legal import of trophies for listed species |  |
| Number of countries developing, adopting, or implementing policy instruments aimed at supporting the shift to sustainable consumption and production | (SDG Indicator 12.1.1) |
| Percentage of Parties that have established effective regulatory frameworks and other measures to ensure that consumer choices are within sustainable parameters |  |
| Progress towards healthy and sustainable diets (food consumption survey, land footprint per kilogram of protein) |  |
| Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size | Complementary indicator t9.6. Volume of production per labour unit by classes of farming/pastoral/ forestry enterprise size (SDG indicator 2.3.1) |
| 17 | Biotechnology development that are being used that contribute to conservation and sustainable uses of biodiversity as well as human well-being |  |
| Capacity and measures in place to prevent, manage and control adverse impacts of biotechnology |  |
| Indicator of measures in place to prevent, manage and control potential adverse impacts of biotechnology on biodiversity taking into account human rights, human health and social and cultural considerations |  |
| Indicator on the establishment or maintenance of the means to regulate, manage, or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health; |  |
| Number of countries that carry out scientifically sound assessments on the release of LMOs resulting from application of modern biotechnology and recombinant DNA techniques |  |
| Number of countries that have the necessary measures in place to carry out horizon scanning monitoring and assessment |  |
| 18 | Amount of financial savings channelled to indigenous peoples and local communities, women and other vulnerable groups |  |
| Indicator on subsidy reform |  |
| Number of economic measures in place to protect biodiversity |  |
| Payment of ecosystem services |  |
| Positive incentives (by type) in place to promote biodiversity conservation and sustainable use |  |
| Total value of harmful subsidies compared with the value of subsidies that have been redirected, repurposed or eliminated |  |
| 19 | Amount of funds provided for the global multilateral benefit-sharing mechanism |  |
| Amount of targeted, additional and economically sustainable financial flows, including ODA, grants and concessional loans for nationally determined biodiversity objectives |  |
| Domestic and international public and private flows for biodiversity |  |
| Earmarked biodiversity funding at all levels for indigenous peoples and local communities as a percentage of overall public and private flows |  |
| Foreign direct investment, official development assistance and South-South cooperation as a proportion of gross national income | (SDG Indicator 17.3.1) |
| Indicator that measures alignment of private and public financial flows on biodiversity |  |
| Number of national biodiversity finance plans or similar instruments |  |
| Public expenditure and private expenditure on conservation and sustainable use of biodiversity and ecosystems as well as development and access to innovation, technical transfer and resource collaboration. |  |
| Ratio of debt servicing to government spending |  |
| The amount of grants to indigenous peoples and local communities for conservation services |  |
| The number of expressed priority needs for capacity building and development, technological/technical development for the global biodiversity framework submitted by developing countries in the clearing-house mechanisms that have received the capacity and development, technological/technical development requested |  |
| Value of commercialization of natural products |  |
| Value of debt for nature swaps |  |
| 20 | Degree to which traditional knowledge of indigenous peoples and local communities is promoted and widely applied in policy making, planning and decision making/ implementation for biodiversity |  |
| 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 | Component indicator 20.2.1 (SDG indicator 4.7.1) |
| Extent to which biodiversity is included in education |  |
| Extent to which national biodiversity strategies and action plans, Nationally Determined Contributions and national development plans reflect traditional knowledge, innovation and practices with appropriate safeguards |  |
| Growth in number of records in the Global Biodiversity Information Facility | Complementary indicator |
| Indicator on free prior and informed requests to indigenous peoples and local communities |  |
| Number of assessments in The IUCN Red List of Threatened Species |  |
| Proportion of public policies based on biodiversity information and monitoring |  |
| 21 | (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights bearers of agricultural land, type of tenure | Complementary indicator t21.5 (SDG indicator 5.a.1) |
| Ensuring women’s legal rights to land ownership and/or control | (SDG indicator 5.a.2) |
| Number of countries that recognize indigenous peoples and local communities in their national biodiversity strategies and action plans |  |
| Number of countries that recognize the right to a healthy environment through their constitutions, legislation or as parties to legally binding regional treaties |  |
| Number of countries where the legal framework respects/guarantees the rights of indigenous peoples, women and girls, over their land, waters and resources, in relation to biodiversity planning and decision-making |  |
| Number of countries with a gender focal point |  |
| Number of environmental defenders killed |  |
| Number of mechanisms for the full equitable and informed consent in decision-making, established, enhanced and implemented |  |
| Number of Parties for which national reports and/or national biodiversity strategies and action plans include gender considerations |  |
| Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group | (SDG indicator 16.7.2) |
| Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure | (SDG Indicator 1.4.2) |
| Secure access and use of waters for indigenous peoples and local communities, particularly women and youth |  |
| Trends in equitable participation in biodiversity-related decision making disaggregated by indigenous peoples and local communities, women and girls, youth |  |
| Trends in land-use change and secure land tenure in the traditional territories of indigenous peoples and local communities  Mechanisms for the full, equitable and effective participation of indigenous peoples and local communities, women and youth established, implemented and enhanced |  |

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1. This annex will be finalized by the Conference of the Parties at its fifteenth meeting and will be completed on the basis of the outcome of the technical review of appendices 1 and 2 referred to in paragraph 2 of recommendation 24/2, ensuring alignment with the final version of the post‑2020 global biodiversity framework. [↑](#footnote-ref-1)
2. Final wording subject to discussions under SBI-3 item 9. [↑](#footnote-ref-2)
3. Pending adoption of the decision contained in recommendation SBI-3/8 [↑](#footnote-ref-3)
4. The comments in the third column of the below table represent only the views of the co-chairs of the contact group on the item “Proposed monitoring framework for the post-2020 global biodiversity framework,” Mr. Andrew Stott (United Kingdom) and Mr. Alfred Oteng-Yeboah (Ghana), regarding the assessment of the indicators of the monitoring framework. [↑](#footnote-ref-4)
5. CBD/WG2020/3/3. [↑](#footnote-ref-5)