| SBSTTA-24 - resumed | Non-paper on item 3 | Date: 17 December 2021 | Version 1 |
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NON-PAPER

PROPOSED MONITORING FRAMEWORK FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

I. INTRODUCTION

1. The Subsidiary Body on Scientific, Technical and Technological Advice body, at the first part of its twenty-fourth meeting, established a contact group to address item 3. The outcome of the group's deliberations was reflected in a Co-Chairs' text on item 3 and a draft recommendation prepared by the Chair (CBD/SBSTTA/24/L.3). The Subsidiary Body agreed to defer adoption of the draft recommendation submitted by the Chair until part II of the meeting.

2. The draft SBSTTA recommendation mentions, in paragraph 1, a monitoring framework for the post-2020 global biodiversity framework which would be annexed to the recommendation. This is also reflected in the list of intersessional work arising from part I of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, annexed to the report of the first part of the meeting (CBD/SBSTTA/24/11).

3. Accordingly, and to assist the Subsidiary Body in its further consideration of this matter, on the basis of the draft recommendation contained in CBD/SBSTTA/24/L.3, the Executive Secretary in collaboration with the Co-Chairs of the Open-ended Working Group and the Chairs of SBSTTA and SBI, has prepared this non-paper containing a revised monitoring framework for measuring the progress in the implementation of the post-2020 global biodiversity framework. It has been prepared on the basis of:

(a) The views expressed during the twenty-third meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, part one of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, part 1 of the third meeting of the Subsidiary Body on Implementation, the second meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework and part one of the third meeting of the Working Group on the Post-2020 Global Biodiversity Framework;

(b) The results of an in-session survey on this issue conducted during the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice;¹

- (c) The indicators identified in decisions $\underline{XIII/28}$ and $\underline{X/3}$;
- (d) Existing reporting processes under the Convention and its Protocols;

(e) The indicators used for monitoring the implementation of the Sustainable Development Goals and other frameworks for official statistics, including the UN Framework for the Development of Environment Statistics and the UN System of Environmental Economic Accounts;

- (f) Indicators developed by the members of the Biodiversity Indicators Partnership;
- (g) An analysis of criteria for inclusion of indicators in the monitoring framework;²

¹ The survey was available from 10 to 19 May 2021 for SBSTTA focal points or CBD national focal points (where SBSTTA focal points had not been designated) and representatives of observer organizations who were registered to attend the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice. Responses were received from 60 Parties (12% from Africa, 18% from Asia and the Pacific, 12% from Central and Eastern Europe, 23% from the Group of Latin American and Caribbean Countries, and 35% from the Western European and Others Group) and 76 observers. For the results of the survey see document CBD/SBSTTA/24/INF/29.

² Additional information documents include: "Indicators for the post-2020 global biodiversity framework" provides this analysis" (CBD/SBSTTA/24/INF/16); "Available monitoring frameworks and information to support monitoring of progress towards goals and targets of the post-2020 global biodiversity framework with respect to marine and coastal biodiversity" (CBD/SBSTTA/24/INF/23) and "Developing and measuring a gender-responsive post-2020 biodiversity framework: information on gender considerations within the draft post-2020 monitoring framework" (CBD/SBSTTA/24/INF/30)

(h) Peer review comments received on an earlier version of the monitoring framework;³

(i) An analysis of the use of indicators in the fifth and sixth national reports to the Convention on Biological Diversity.⁴

³ A draft monitoring framework was made available for peer review from 24 June to 15 August 2020 prior to being presented to SBSTTA-24 (see notification 2019-108). The Secretariat received 233 submissions from 53 Parties, 1 other Government and 179 observers. The peer review comments included general comments on the design of a monitoring framework for the post-2020 global biodiversity framework as well as specific comments on indicators. Many of the comments highlighted the need for a simple monitoring framework which is nationally relevant, imbued with a clear monitoring logic, is aligned with existing processes and agreed measurement frameworks and is structured around agreed headline indicators.

⁴ See document CBD/SBSTTA/24/3/Add.1 for the results of the analysis

Annex

PROPOSED MONITORING FRAMEWORK FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

1. The monitoring framework is composed of three groups of indicators for monitoring the implementation of the post-2020 global biodiversity framework:

(a) 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 which can be used for tracking national progress, as well as for tracking progress at regional and global levels. These indicators, or a subset of them, can also be used for communication purposes;

(b) Component indicators (contained in Appendix 2): A list of 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 national as well as global and regional levels;

(c) Complementary indicators (contained in Appendix 2): a list of indicators for thematic or indepth analysis of each goal and target which may be applicable at global, national and regional levels. It is expected that this list will be dynamically updated to reflect new scientific and indicator development.

2. The indicators in the monitoring framework for the post-2020 global biodiversity framework should meet, or be able to meet by 2030, the following criteria:

(a) The data and metadata related to the indicator are (or will be) publicly available;

(b) The methodology underpinning the indicator is either published in a peer reviewed academic journal or has gone through a scientific peer review process;

(c) There is evidence that the indicators can be compiled regularly updated with a time lag of less than five years between updates;

(d) There is an existing mechanism for maintaining the indicator methodology, 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;

(e) When possible, indicators are aligned with existing intergovernmental processes under the United Nations Statistical Commission, including 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 GEO-BON (noting that many of the essential biodiversity variables also serve as the underlying data for the System of Environmental-Economic Accounting).

3. Additionally, headline indicators constitute a minimum set of high-level indicators which capture the overall scope of the goals and targets of the post-2020 global biodiversity framework and which are suitable for tracking progress towards them. They are nationally relevant indicators which can be used by all Parties, and at the regional and global levels. In addition, headline indicators could constitute one of the main components of the national reports and support national planning processes. These indicators should use methodologies agreed by Parties and be calculated based on national data provided and/or validated by Parties, including where appropriate through their national statistical offices. Headline indicators would allow for consistent, standardized and scalable tracking of global goals and targets.

4. To facilitate the use of these headline indicators at the national level, capacity-building activities and other support would be likely to be needed in many countries.

5. 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.

7. When an existing indicator could not be identified that could be suitable as a headline indicator for a particular goal or target, a proposal for the development of an indicator is included in appendix 1. The status of development of the indicator is noted in appendix I along with the Headline indicators. Indicators which are identified as "existing" have available national level data and a global aggregation; however, these indicators may still require national tailorization and may be based on global modelling. Indicators which are identified as "near ready" are under active development and where there are national experiences in compiling and using the indicator. Indicators which are identified as "needs development" represent placeholders for indicators which will be needed and whose development and operationalization would be supported by the proposed AHTEG on indicators. As such the suggested names of those indicators which need further development may require modification once the indicator has been operationalized.

Appendix 1

PROPOSED HEADLINE INDICATORS FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|--|---|--|---|---|--|
| Goal A. The integrity of all ecosystems is enhanced, with an increase of at least 15% 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 | A.0.1 Extent of selected natural and modified ecosystems (i.e. forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats) | By terrestrial and marine ecosystem types By mountains | | UN System of Environmental- Economic Accounting (SEEA): https://seea.un.org/ecos ystem-accounting Ecosystem types based on IUCN categories | Near ready** |
| groups, is halved, and genetic diversity of wild and domesticated species is safeguarded, with at least 90% of genetic diversity within all species maintained. | A.0.2 Species Habitat Index A.0.3 Red list | By species group By species | SDG (15.5.1) | GEOBON: https://geobon.org/ebvs/ indicators/ (Measures connectivity and integrity of habitats) SDG: IUCN: | Existing, 2001 to present** Existing, data from 1996 to present |
| | index | group | 500 (15.5.1) | https://www.iucnredlist. | Existing, data nom 1990 to present |

⁵ Indicators marked with a "tbc *" are not yet developed and the proposed wording is for an indicator that would need developed under the guidance of the proposed Ad Hoc and Technical Advisory Group.

⁶ Two asterisks (**) indicate that an information document is available for this indicator.

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|--|--|---|---|--|--|
| | A.0.4 The proportion of populations within species with a genetically effective population size > 500 | By species group | | GEOBON, see: https://www.sciencedire ct.com/science/article/pi i/S0006320720307126 | Near ready** |
| Goal B. Nature's contributions to people have been valued, maintained or enhanced through conservation and sustainable use supporting the global development agenda for the benefit of all. | B.0.1 National environmental economic accounts of ecosystem services* | By ecosystem type and type of service | | UN System of Environmental Economic Accounting: <u>https://seea.un.org/ecos</u> <u>ystem-accounting</u> . This indicator would be measured in physical and monetary terms and links with the concept of a Gross Ecosystem Product. | Near ready** |
| 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 | C.0.1 Indicator on monetary benefits received tbc* | Tbd | | CBD: An estimate of monetary benefits would fill a key knowledge gap; however, additional coordination would be required. | Needs development** |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|--|-------------------------------------|----------------------------|---|---|--|
| and sustainable use of | C.0.2 Indicator on | Tbd | | CBD: An estimate | Needs development** |
| biodiversity. | non-monetary | | | of non-monetary | |
| | benefits tbc* | | | benefits would fill a | |
| | | | | key knowledge | |
| | | | | gap; however, | |
| | | | | additional | |
| | | | | coordination would | |
| | | | | be required. | хт 1 1 1 (44 |
| Goal D. The gap between | D.0.1 Indicators | By funding | | CBD: Aligned with | Needs development** |
| available financial and other | on funding for | source | | indicators under | |
| means of implementation, and those necessary to achieve the | implementation of the global | | | Target 19 | |
| 2050 Vision, is closed. | biodiversity | | | | |
| 2030 Vision, is closed. | framework tbc* | | | | |
| - | D.0.1. Indicators | Tbd | | CBD: Could be | Needs development ** |
| | on funding for | | | collected through | in the second |
| | implementation of | | | national reporting | |
| | the global | | | to capture gaps in | |
| | biodiversity | | | alignment with the | |
| | framework tbc | | | GBF, | |
| | (aligned with | | | mainstreaming and | |
| | Target 19)* | | | means of | |
| | | D / / 1 | | implementation. | |
| Target 1. Ensure that all land | 1.0.1 indicator of | By terrestrial | | CBD: Could be | Needs development** |
| and sea areas globally are | the percentage of | and marine | | collected through | |
| under integrated biodiversity- inclusive spatial planning | land and seas | ecosystem | | self-assessment in | |
| addressing land- and sea-use | covered by spatial plans that | type | | national reporting and would link with | |
| change, retaining existing | integrate | | | SDG 6.5.1, 14.2.1 | |
| intact and wilderness areas. | biodiversity tbc* | | | and 15.2.1. | |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|---|--|---|---|--|--|
| Target 2. Ensure that at least 20% of degraded freshwater, marine and terrestrial ecosystems are under restoration, ensuring connectivity among them and focusing on priority ecosystems. | 2.0.1 Percentage of degraded or converted ecosystems that are under restoration | By ecosystem type | FAO through the Decade on Ecosystem Restoration | Task Force on Monitoring in support of the United Nations Decade on Ecosystem Restoration: 2021- 2030 http://www.fao.org/in- action/forest-landscape- restoration- mechanism/resources/d etail/es/c/1315004/ | Near ready |
| Target 3. Ensure that at least 30% 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 Coverage of Protected areas and OECMS (by effectiveness) | By ecosystem type By key biodiversity area By effectiveness category (PAME) By mountains | SDG (14.2.1, 15.1.2 and 15.4.1) | SDG: Protected Planet: <u>https://www.protectedpl</u> <u>anet.net/en</u> | Existing, protected areas data from pre- 1970 to present, OECM data under compilation |
| Target 4. Ensure active management actions to enable the recovery and conservation | 4.0.1 Proportion of species populations that | | | IUCN SSC Human- Wildlife Conflict | Near ready, 2020/21** |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|--|---|---|---|--|--|
| of species and the genetic diversity of wild and domesticated species, | are affected by human wildlife conflict | | | Task Force: https://www.hwctf.org/ | |
| including through ex situ conservation, and effectively manage human-wildlife interactions to avoid or reduce human-wildlife conflict. | 4.0.2 Number of plant genetic resources for food and agriculture secured in medium or long- term conservation facilities | | SDG (2.5.1a) | SDG: FAO: http://www.fao.org/sust ainable-development- goals/indicators/251a/en / (currently captures plants but there is work on livestock under 2.5.1b which is under way) | Existing, 2000 to present |
| Target 5. Ensure that the harvesting, trade and use of wild species is sustainable, legal, and safe for human health. | 5.0.1 Indicator on wildlife that is harvested legally and sustainably tbc* | By species group By use: domestic or traded | | CBD: This indicator would fill a knowledge gap but would require additional research and development. | Needs development |
| | 5.0.2 Proportion of fish stocks within biologically sustainable levels | By type of fish | SDG (14.4.1) | SDG: FAO: http://www.fao.org/sust ainable-development- goals/indicators/1441/e n/ | Existing, data from 1970 to present |
| Target 6. Manage pathways for the introduction of invasive alien species, preventing, or reducing their rate of introduction and establishment by at least 50%, and control or eradicate invasive alien species to eliminate or reduce their | 6.0.1 Rate of invasive alien species spread | By pathway | | GEOBON: https://geobon.org/ebvs/ working- groups/species- populations/ebv-for- invasion-monitoring/ | Near ready, data will be from 1980 to present** |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|--|--|--|---|---|--|
| impacts, focusing on priority species and priority sites. | | | | | |
| Target 7. Reduce pollution from all sources to levels that are not harmful to biodiversity, ecosystem functions or 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 water body type | SDG (14.1.1a) | SDG: UNEP: https://www.unep.org/e xplore- topics/sustainable- development- goals/why-do- sustainable- development-goals- matter/goal-14 | Existing, data from 2010 to present |
| | 7.0.2 Plastic debris density | By location (beach, floating, sea column, sea floor) | SDG (14.1.1.b) | SDG: UNEP: <u>https://www.unep.org/e</u> <u>xplore-</u> <u>topics/sustainable-</u> <u>development-</u> <u>goals/why-do-</u> <u>sustainable-</u> <u>development-goals-</u> <u>matter/goal-14</u> | Existing on beach litter, from 2020 |
| | 7.0.3 Pesticide use per area of cropland | By pesticide type | FAO | FAO: http://www.fao.org/faos tat/en/#data/EP/visualiz e | Existing, data from 1990 to present |
| 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 | 8.0.1 National green-house gas inventories from land use and land use change | | | IPCC: https://www.ipcc- nggip.iges.or.jp/public/2 019rf/index.html | Near ready |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|---|--|----------------------------|---|---|--|
| ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity. | | | | | |
| 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 | | | SEEA: https://seea.un.org/ecos ystem-accounting (disaggregation of accounting information from Goal B) | Near ready ** |
| 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 | 10.0.1 Proportion of agricultural area under productive and sustainable agriculture | | SDG (2.4.1) | SDG: FAO: http://www.fao.org/sust ainable-development- goals/indicators/241/en/ (Measures sustainable agriculture as a percentage of total agricultural area) | Near ready through SDG process |
| systems. | 10.0.2 Progress towards sustainable forest management (Proportion of forest area under | | SDG (15.2.1) | SDG: FAO: https://unstats.un.org/sd gs/metadata/?Text&Goa l=15&Target (Measures sustainable forest | Near ready through SDG process |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|--|--|----------------------------|---|--|--|
| | a long-term forest management plan) | | | as a percentage of total forest area) | |
| 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 | | | SEEA: https://seea.un.org/ecos ystem-accounting (disaggregation of accounting information from Goal B) | Near ready** |
| 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) | SDG: UN-Habitat: https://urban-data-guo- un- habitat.hub.arcgis.com/ documents/metadata- on-sdg-indicator-11-7- <u>1/explore</u> | Existing, data from 2020 |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|---|---|----------------------------|---|--|--|
| 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 Indicators of operational legislative, administrative or policy frameworks which ensure fair and equitable sharing of benefits, including those based on PIC and MAT tbc* | Tbd | | CBD: This index would need to be developed to capture all ABS mechanisms in a coherent way. | Needs developed** |
| 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 for integrating biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies and accounts at all levels, ensuring that biodiversity values are | | Existing in CBD National Reports and used for SDG 15.9.1a | SDG: CBD: https://unstats.un.org/sd gs/metadata/?Text=&G oal=15&Target=15.9 | Existing, data from 2015 to present |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|-------------------------|--|----------------------------|---|---|--|
| | mainstreamed across all sectors and integrated into assessments of environmental impacts | | | | |
| | 14.0.2 Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental- Economic Accounting | | SDG 15.9.1b | SDG: UNSD: https://unstats.un.org/sd gs/metadata/?Text=&G oal=15&Target=15.9 | Existing, data from 2015 to present |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|---|---|---------------------------------|---|--|--|
| 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 Dependencies and impacts of businesses on biodiversity | By industrial classification | | CBD: Would need to be developed, but could be based on corporate sustainability reporting under SDG 12.6.1 and methodological work by TFND, IPBES, etc. https://unstats.un.org/sd gs/metadata/?Text=&G oal=12&Target=12.6 | Needs development |
| 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. | 16.0.1 Food waste index 16.0.2 Material footprint per capita | By type of material | SDG (12.3.1b) SDG (8.4.1,12.2.1) | SDG : UNEP : https://www.unep.o rg/thinkeatsave/abo ut/sdg-123-food- waste-index SDG: UNEP : https://www.unep.org/e xplore- topics/sustainable- development- goals/why-do- sustainable- development-goals- matter/goal-12-1 | Near ready through the SDG process Existing, data from 1970 to present |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|---|---|----------------------------|---|--|--|
| 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 measures in place to prevent, manage and control potential adverse impacts of biotechnology on biodiversity taking into account human health tbc* | | | CBD: This index would need to be developed. | Needs development |
| Target 18. Redirect, repurpose, reform or eliminate incentives harmful for biodiversity, in a just and equitable way, reducing them by at least 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 Value of subsidies and other incentives harmful to biodiversity, that are redirected, repurposed or eliminated. | By type of instrument | OECD | Based on OECD methodology https://www.oecd.org /fr/tad/environmentall yharmfulsubsidiescha llengesforreform.htm | Existing, data from 1990s |
| Target 19. Increase financial resources from all sources to at least 200 billion per year, including new, additional and effective financial resources, increasing by at least 10 billion | 19.0.1 Official development assistance for biodiversity | By type of expenditure | SDG (15.a.1) | SDG: OECD: https://unstats.un.org/ sdgs/metadata/?Text= &Goal=15&Target=1 5.a | Existing data, 1950 - present |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|---|---|----------------------------|---|---|--|
| 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 implementing the post-2020 global biodiversity framework implementation, commensurate with the ambition of the goals and targets of the framework. | | | | | |
| | 19.0.2 Public expenditure and private expenditure on conservation and sustainable use of biodiversity and ecosystems | | | Existing methodologies and research by the CBD, BIOFIN and SEEA. Data can be collected through national biodiversity finance plans. | Needs development |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|--|--|---|---|---|--|
| Target 20. Ensure that relevant knowledge, including the traditional knowledge, innovations and practices of indigenous 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, for management tbc* | | | To be developed with GEOBON, IIFB and others to capture biodiversity observation systems and traditional knowledge. This indicator would aim to capture different elements of data and knowledge availability and access. | Needs development** |
| 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 | 21.0.2 Land tenure in the traditional territories of indigenous peoples and local communities 21.0.1 Indicator | By sex By IPLC status By type of tenure | SDG 1.4.2 and 5.a.1 | SDG: World Bank and UN-Habitat: https://www.worldbank. org/en/programs/lsms/la nd-tenure | Near ready (existing survey collection from World Bank and UN-Habitat Needs development |
| women and girls, and youth. | on the degree to which indigenous peoples and local communities, women and girls as well as youth participate in | | | engagement of stakeholders is already included in NBSAPs and national reports. This would be | |

| Proposed goal or target | Proposed indicators ⁵ | Proposed disaggregation | National reporting/ validation process already exists through another process | Methodological basis | Global data set for national disaggregation ⁶ (Existing = the indicator has available data at the global and national level; Near ready = a global body is currently working to roll-out the indicator; Needs development = AHTEG and others would need to support the further development) |
|-------------------------|--|----------------------------|---|------------------------------|--|
| | decision-making related to biodiversity tbc* | | | based on self- reporting. | |

Appendix 2

PROPOSED HEADLINE, COMPONENT AND COMPLEMENTARY INDICATORS FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Note that when a component of the goal and/or target is covered by a headline indicator, the indicator can be used for monitoring both at the goal target and/or the component. If a headline indicator does not cover all components then a component indicator is suggested to cover the component. Also note that while the headline and component indicators are linked to specific components of the goals and targets, the complementary indicators, given their more technical nature, are linked to the goals and/or targets. Further note that the headline indicators included in this table are the same as those in appendix 1. They have been included in this table for ease of reference.

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|-------------------------------------|--------------------------|---------------------------|----------------------------|--------------------------------------|
| Goal A The integrity of all | A.1 Area of natural | A.0.1 Extent of selected | | a.1. Forest area as a proportion of |
| ecosystems is enhanced, with an | ecosystems | natural and modified | | total land area (SDG indicator |
| increase of at least 15 per cent in | | ecosystems by type (i.e. | | 15.1.1) |
| the area, connectivity and | | forest, savannahs and | | a.2. Forest distribution |
| integrity of natural ecosystems, | | grasslands, wetlands, | | |
| supporting healthy and resilient | | mangroves, saltmarshes, | | a.3. Tree cover loss |
| populations of all species, the | | coral reef, seagrass, | | a.4. Grassland and savannah extent |
| rate of extinctions has been | | macroalgae and intertidal | | a.5. Mountain Green Cover Index |
| reduced at least tenfold, and the | | habitats) | | a.6. Peatland extent and condition |
| risk of species extinctions across | A.2 Connectivity of | A.0.2 Species Habitat | A.2.1 CMS connectivity | a.7. Permafrost thickness, depth and |
| all taxonomic and functional | natural ecosystems | Index | indicator (CMS) | extent |
| groups, is halved, and genetic | | - | | |
| diversity of wild and | A.3 Integrity of natural | | A.3.1 Ecosystem Integrity | a.8. Red List of Ecosystems |
| domesticated species is | ecosystems | | Index | a.9. Continuous Global Mangrove |
| safeguarded, with at least 90 per | | - | | Forest Cover |
| cent of genetic diversity within | A.4 Abundance and | | A.4.1 Species status | a.10. Trends in mangrove forest |
| all species maintained. | distribution of | | information index | fragmentation |
| | populations of species | | (GEOBON) | a.11. Change in the extent of water- |
| Milestone A.1 Net gain in the | | | A.4.2 Living Planet Index | related ecosystems over time (SDG |
| area, connectivity and integrity of | A.5 Species extinction | A.0.3 Red list index | | indicator 6.6.1) |
| natural systems of at least 5 per | rate | - | | , |
| cent. | A.6 Species extinction | | | a.12. Trends in mangrove extent |
| | risk | - | | a.13. Live coral cover |
| Milestone A.2 The increase in the | A.7 Proportion of | | | a.14. Hard Coral cover and |
| extinction rate is halted or | species that are | | | composition |
| reversed, and the extinction risk | threatened | | | * |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|--|--------------------|-------------------------|---------------------------------------|--|
| is reduced by at least 10 per | A.8 Maintenance of | A.0.4 The proportion of | A.8.1 Proportion of | a.15. Global coral reef extent |
| cent, with a decrease in the proportion of species that are | genetic diversity | | populations maintained within species | a.16. Global Seagrass Extent (Seagrass Cover and composition) |
| threatened, and the abundance | | population size > 500 | (GEOBON) | a.17. Global saltmarsh extent |
| and distribution of populations of species is enhanced or at least | | | | a.18. Kelp canopy extent |
| maintained. Milestone A.3 Genetic diversity of | | | | a.19. Macroalgal Canopy Cover and Composition |
| wild and domesticated species is | | | | a.20. Cover of key benthic groups |
| safeguarded, with an increase in | | | | a.21. Fleshy algae cover |
| the proportion of species that have at least 90 per cent of their | | | | a.22. Wetland Extent Trends Index |
| genetic diversity maintained. | | | | 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. Ecoregion Intactness Index |
| | | | | a.33. Biodiversity Intactness Index |
| | | | | a.34. Ocean Health Index |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|-----------------------|-----------|--------------------|----------------------------|---|
| | | | | 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. 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 $e \Box$ ective 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. |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|---|--|--|--|--|
| | | | | 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) |
| 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. <i>Milestone B.1 Nature and its</i> <i>contributions to people are fully</i> <i>accounted and inform all</i> <i>relevant public and private</i> <i>decisions.</i> <i>Milestone B.2 The long-term</i> <i>sustainability of all categories of</i> <i>nature's contributions to people</i> <i>is ensured, with those currently</i> <i>in decline restored, contributing</i> <i>to each of the relevant</i> <i>Sustainable Development Goals.</i> | B.1 Nature and its contributions to people are fully accounted for B.2 Long-term sustainability of nature's contributions to people is ensured B.3. Nature's contributions to people in decline restored B.4 Contribution to other relevant Sustainable Development Goals | B.0.1 National environmental economic accounts of ecosystem services* | 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 nonmaterial contributions including sincluding cultural (from the environmental economic accounts) | a.54. Red List Index (wild relatives of domesticated animals) 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 |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|-----------------------|-----------|--------------------|----------------------------|--|
| | | | | 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 |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|---|---|--|----------------------------|--|
| | | | | 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 | C.1 Monetary benefits received by providers | C.0.1 Indicator on monetary benefits received tbc* | | c.1. Number of users that have provided information relevant to the utilization of genetic resources to designated checkpoints |
| both monetary and non-monetary benefits shared, including for the conservation and sustainable use of hindiversity | C.2 Non-monetary benefits | C.0.2 Indicator on non- monetary benefits tbc* | | c.2. Total number of internationally recognized certificates published in the APB Clearing-House |
| of biodiversity. Milestone C.1 The share of monetary benefits received by providers, including holders of | | | | c.3. Number of checkpoint communiqués published in the ABS Clearing-House |
| traditional knowledge, has increased. Milestone C.2 Non-monetary | | | | c.4. Number of internationally recognized certificates of compliance for non-commercial |
| benefits, such as the participation of providers, | | | | purposes |
| including holders of traditional knowledge, in research and development, has increased. | | | | |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|------------------------------------|----------------------|------------------------|----------------------------|--|
| Goal D The gap between | D.1 close the \$700B | D.0.1. Indicators on | | d.1. Financial resources captured in |
| available financial and other | financial gap | funding for | | the headline indicators for Target 18 |
| means of implementation, and | | implementation of the | | d.2. Finance mobilized for |
| those necessary to achieve | | global biodiversity | | capacity-building |
| Milestone D.1 Adequate | | framework tbc (aligned | | d.3. Financial and technical |
| financial resources to implement | | with Target 19)* | | assistance provided in dollars |
| the framework are available and | | | | (including through South-South, |
| deployed, progressively closing | | | | North-South and triangular |
| the financing gap up to at least | | | | cooperation) |
| US \$700 billion per year by 2030. | | | | d.4. Finance mobilized for |
| Milestone D.2 Adequate other | | | | promoting the development, |
| means, including capacity- | | | | transfer, dissemination and |
| building and development, | | | | diffusion of technology |
| technical and scientific | | | | d.5. Number of scientists per |
| cooperation and technology | | | | population |
| transfer to implement the | | | | * * |
| framework to 2030 are available | | | | d.6. Joint scientific papers published (in Ocean Biodiversity |
| and deployed. | | | | Information System (OBIS)) by |
| Milestone D.3 Adequate | | | | sector |
| financial and other resources for | | | | |
| the period 2030 to 2040 are | | | | d.7. Number of marine monitoring stations |
| planned or committed by 2030. | | | | |
| | | | | 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 |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|-----------------------|---|--------------------|----------------------------|---|
| | | | | presented by bilateral trade flows by ICT goods categories |
| | D.2 avoid future costs and increase financial resources | | | |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|-----------------------|-------------------------|-----------------------------|----------------------------|--------------------------|
| | D.3 other means are | D.0.2 Indicator on national | | |
| | available and deployed | biodiversity planning | | |
| | | processes and means of | | |
| | D.4 financial and other | implementation tbc* | | |
| | resources planned or | | | |
| | committed | | | |
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| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|---|---|--|---|---|
| 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. | 1.1 Area under integrated biodiversity- inclusive spatial planning | 1.0.1 indicator of the percentage of land and seas covered by spatial plans that integrate biodiversity tbc* | | t1.1. Number of countries using natural capital accounts in planning processest1.2. Percentage of spatial plans utilising information on key biodiversity areas |
| | 1.2 Retention of existing intact and wilderness areas | | 1.2.1 Priority retention of intact / wilderness 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 |
| 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. | 2.1 Area of freshwater, marine and terrestrial ecosystems restored2.2 Connectivity | 2.0.1 Percentage of degraded or converted ecosystems that are under restoration | 2.2.1 Maintenance and restoration of connectivity of natural ecosystems | is under cultivation 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 |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|--|---|--|--|--|
| | | | | 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 | 3.1 Area protected and conserved | 3.0.1 Coverage of Protected areas and OECMS (by effectiveness) | | t3.1. Protected area downgrading, downsizing and degazettement (PADDD) |
| of particular importance for biodiversity and its contributions | 3.2 Areas of particular | | 3.2.1 Protected area | t3.2. Status of key biodiversity |
| to people, are conserved through | importance for biodiversity protected | | coverage of key biodiversity areas (SDG | areas |
| effectively and equitably managed, ecologically | and conserved | | 14.5.1 and 15.1.2) | t3.3. Protected area coverage of key biodiversity areas |
| representative and well- connected systems of protected | 3.3 Effective management and | | 3.3.1 Protected Area Management | t3.4. Protected area coverage of coral reefs |
| areas and other effective area- based conservation measures, | equitable governance of the system of protected | | Effectiveness (PAME) (Protected Planet) | t3.5. IUCN Green List of Protected and Conserved Areas |
| and integrated into the wider landscapes and seascapes. | areas and other effective area-based conservation | | | t3.6. Number of hectares of UNESCO designated sites (natural |
| | measures 3.4 Connectivity within | | 3.4.1 Species Protection | and mixed World Heritage sites and Biosphere Reserves) |
| | the system of protected areas and other effective area-based conservation measures | | Index (GEOBON) | 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 |
| | | | | is is a species if election makes |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|--|--|---|---|---|
| | | | | 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 | 4.1 Conservation and recovery actions | | 4.1.1 Green Status of Species Index (IUCN) | t4.1. Species threat abatement and restoration metric |
| the recovery and conservation of species and the genetic diversity of wild and domesticated species, | 4.2 Wildlife conflict | 4.0.1 Proportion of species populations that are | | t4.2. IUCN Green Status of Species Index by sub-indicators |
| including through ex situ conservation, and effectively | | affected by human wildlife conflict | | t4.3. Changing status of evolutionary distinct and globally |
| manage human-wildlife interactions to avoid or reduce human-wildlife conflict. | 4.3 Genetic diversity | 4.0.2 Number of plant genetic resources for food and agriculture secured in medium or long-term conservation facilities | | endangered species (EDGE Index)t4.4. Percentage of threatenedspecies that are improving instatus.t4.5. Number of CMS daughter |
| Target 5. Ensure that the harvesting, trade and use of wild | 5.1. Harvesting, trade and use are sustainable, legal and safe | 5.0.1 Proportion of wildlife that is harvested | | agreements t5.1. Sustainable watershed and inland fisheries index |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|--|---|---|----------------------------|---|
| species is sustainable, legal, and | | and traded legally and | | t5.2. Marine Stewardship Council |
| safe for human health. | | sustainably | | Fish catch |
| | | 5.0.2 Proportion of fish stocks within biologically | | t5.3. Total catch of cetaceans under International Convention for the Regulation of Whaling |
| | | sustainable levels | | 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 |
| Target 6. Manage pathways for | 6.1 Rate of introduction | 6.0.1 Rate of invasive | | t6.1. Number of invasive alien |
| the introduction of invasive alien | and establishment | alien species spread | | species in national lists as per the |
| species, preventing, or reducing their rate of introduction and establishment by at least 50 per | 6.2 Control or eradicate invasive alien species | | | Global Register of Introduced and Invasive Speciest5.2. Proportion of countries adopting relevant |

| Component | Headline indicator | Component indicator | Complementary indicators |
|---|--|--|---|
| 6.3 Reducing the impact on priority species and priority sites | | 6.3.1 Rate of invasive alien species impact (GEOBON) | national legislation and adequately resourcing the prevention or control of invasive alien species |
| 7.1 Amount of nutrients leached or lost to the environment | 7.0.1 Index of coastal eutrophication potential (excess nitrogen and phosphate loading, exported from national boundaries) | 7.1.1 Fertilizer use (FAO) 7.1.2 Proportion of domestic and industrial wastewater flow safely treated (SDG 6.3.1) | t7.1 Trends in Loss of Reactive Nitrogen to the Environment. |
| 7.2 Amount of pesticidesleached or lost to theenvironment7.3 Amount of discharge | 7.0.3 Pesticide use per area of cropland7.0.2 Plastic debris density | | |
| 7.4 Amount of other pollutants | | 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) | |
| 8.1 Minimize impact of climate change | | 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 | 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 |
| | on priority species and priority sites 7.1 Amount of nutrients leached or lost to the environment 7.2 Amount of pesticides leached or lost to the environment 7.3 Amount of discharge of plastic waste 7.4 Amount of other pollutants 8.1 Minimize impact of | on priority species and priority sites7.0.1 Index of coastal eutrophication potential (excess nitrogen and phosphate loading, exported from national boundaries)7.2 Amount of pesticides leached or lost to the environment7.0.3 Pesticide use per area of cropland7.3 Amount of discharge of plastic waste7.0.2 Plastic debris density7.4 Amount of other pollutants8.1 Minimize impact of | on priority species and priority sitesspecies (GEOBON)7.1 Amount of nutrients leached or lost to the environment7.0.1 Index of coastal eutrophication potential (excess nitrogen and phosphate loading, exported from national boundaries)7.1.1 Fertilizer use (FAO) 7.1.2 Proportion of domestic and industrial wastewater flow safely treated (SDG 6.3.1)7.2 Amount of pesticides leached or lost to the environment7.0.3 Pesticide use per area of cropland7.4.1 Municipal solid waste collected and managed (SDG 11.6.1) 7.4.2 Underwater noise pollutants7.4 Amount of other pollutants7.0.2 Plastic debris density of plastic waste7.4.1 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)8.1 Minimize impact of climate change8.1.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation plans and adaptation plans and adaptation plans |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|-------------------------------------|------------------------------------|----------------------------|---|---|
| | 8.2 Contribute at least | 8.0.1 National green-house | 8.2.1. Total climate | implement local disaster risk |
| | 10 GtCO ₂ to mitigation | gas inventories from land | regulation services | reduction strategies in line with |
| | and adaptation through | use and land use change | provided by ecosystems | national disaster risk reduction |
| | ecosystem-based | | by ecosystem type | strategies (SDG indicator 13.1.3) |
| | approaches | | (System of Environmental | t8.4. Number of least developed |
| | | | Economic Accounts) | countries and small island |
| | 8.3 Ensure that all | | 8.3.1 Number of countries | developing States with nationally |
| | mitigation and | | that adopt and implement | determined contributions, long- |
| | adaptation efforts avoid | | national disaster risk | term strategies, national adaptation |
| | negative impacts on | | reduction strategies in line | plans, strategies as reported in |
| | biodiversity | | with the Sendai Framework for Disaster | adaptation communications and |
| | | | Risk Reduction 2015– | national communications (SDG |
| | | | 2030 which include | indicator 13.b.1) |
| | | | biodiversity (based on | |
| | | | SDG 13.2.1) | |
| Target 9. Ensure benefits, | 9.1 Ensure benefits | 9.0.1 National | 9.1.1 Number of people | t9.1. Proportion of fish stocks |
| including nutrition, food security, | | environmental-economic | using wild resources for | within biologically sustainable |
| medicines, and livelihoods for | | accounts of benefits from | energy, food or culture | levels (SDG indicator 14.4.1) |
| people especially for the most | | the use of wild species | (including firewood | |
| vulnerable through sustainable | | | collection, hunting and | t9.2. Degree of implementation of international instruments aiming to |
| management of wild terrestrial, | | | fishing, gathering, | combat illegal, unreported and |
| freshwater and marine species | | | medicinal use, craft | |
| and protecting customary | | | making, etc.) | unregulated fishing (SDG indicator 14.6.1) |
| sustainable use by indigenous | | | 9.1.2 Percentage of the | / |
| peoples and local communities. | | | population in traditional | t9.3. Spawning stock biomass |
| | | | employment (ILO) | (related to commercially exploited |
| | | | 9.1.3 Spawning stock | species) |
| | | | biomass (related to | t9.4. Number of plant and animal |
| | | | commercially exploited | genetic resources for food and |
| | | | species) | 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 |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|--|---|--|---|---|
| | | | | 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 | 10.1 Agriculture | 10.0.1 Proportion of agricultural area under productive and sustainable agriculture | 10.1.1. Average income of small-scale food producers, by sex and indigenous status (SDG indicator 2.3.2) | 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) |
| productivity and resilience of these production systems. | 10.2 Aquaculture 10.3 Forestry | 10.0.2 Progress towards sustainable forest management (Proportion of forest area under a long-term forest management plan) | 10.3.1 Area of forest under sustainable management: total forest management certification by Forest Stewardship Council and Programme | 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) |
| 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. | 11.1 Air quality 11.2 Quality and quantity of water | 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 | 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 | 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) |
| | | | | |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|--|---|---|--|---|
| | | | 11.2.3 Level of water stress (SDG 6.4.2) | |
| | 11.3 Protection from hazards and extreme events | | 11.2.1. Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1) | |
| Target 12. Increase the area of, access to, and benefits from green and blue spaces, for human health and well-being in urban | 12.1 Increase the area of green and blue spaces | 12.0.1 Average share of the built-up area of cities that is green/blue space for public use for all | | |
| areas and other densely populated areas. | 12.2 Increase the access to and benefits from green and blue spaces | | 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 | 13.1 Measures to facilitate access to genetic resources ensuring fair and equitable sharing of benefits arising from the | 13.0.1 Indicators of operational legislative, administrative or policy frameworks which ensure fair and equitable sharing of benefits, including | 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 |
| genetic resources, and as relevant, of associated traditional knowledge, including through mutually agreed terms and prior | use of genetic resources | those based on PIC and MAT tbc* | | t13.2. Total number of permits, or their equivalent, granted for access to genetic resources |
| and informed consent. | | | | 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 |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|---|--|--|---------------------|---|
| | | | | 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 % 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. | 14.1 Integrate biodiversity values into policies, regulations, planning, development processes and poverty reduction strategies | 14.0.1 Extent to which national targets for integrating biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies and accounts at all levels, ensuring that biodiversity values are mainstreamed across all sectors and integrated into assessments of environmental impacts | | t14.1. Human Appropriation of Net Primary Production (HANPP) t14.2. Number of MSC Chain of Custody Certification holders by distribution country |
| | 14.2 Integrate biodiversity into national accounts | 14.0.2 Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental- Economic Accounting | | |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|---|--|---|---|---|
| | 14.3 Assessments of environmental impacts | | 14.3.1 Existing legislation for environmental impact assessment | |
| | 14.4 Aligned financial flows with biodiversity values | | Tbc (will align with the Task Force for Nature- related Financial Disclosures) | |
| Target 15. All businesses (public and private, large, medium and small) assess and report on their | 15.1 Businesses assess and report on their dependencies and | 15.0.1 Dependencies and impacts of businesses on biodiversity | | t15.1. CO ₂ emission per unit of value added (SDG indicator 9.4.1) |
| dependencies and impacts on biodiversity, from local to global, and progressively reduce negative impacts, by at least half | impacts on biodiversity 15.2 Businesses reduce their negative impacts on biodiversity | blodiversity | | t15.2. Change in water-use efficiency over time (SDG indicator 6.4.1) |
| and increase positive impacts, reducing biodiversity-related risks to businesses and moving towards the full sustainability of | 15.3 Reduce biodiversity-related risks to businesses | | Tbc (will align with the Task Force for Nature- related Financial Disclosures) | |
| extraction and production practices, sourcing and supply chains, and use and disposal. | 15.4 Move towards the full sustainability of extraction and production practices, sourcing and supply chains, and use and disposal | | 15.4.1 Ecological footprint 15.4.2 Recycling rate | |
| Target 16. Ensure that people are encouraged and enabled to make responsible choices and have | 16.1 People have access to relevant information and alternatives | 16.0.2 Material footprint per capita | | |
| 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. | 16.2 Reduce waste and overconsumption | 16.0.1 Food waste index | (15.4.2 Recycling rate) | |
| Target 17. Establish, strengthen capacity for, and implement | 17.1 Measures to manage or control | 17.0.1 Indicator of measures in place to | 17.1.1 Number of countries that carry out | t17.1. Number of countries that have the necessary biosafety legal |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|---|--------------------------|--|---|--|
| measures in all countries to | potential adverse | prevent, manage and | scientifically sound risk | and administrative measures in |
| prevent, manage or control | impacts of | control potential adverse | assessments to support | place |
| potential adverse impacts of biotechnology on biodiversity and human health, reducing the risk of these impacts. | biotechnology | impacts of biotechnology on biodiversity taking into account human health tbc* | 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 | t17.2. 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 |
| Target 18. Redirect, repurpose, | 18.1 Redirect, | 18.0.1 Value of subsidies | Positive incentives (based | t18.1. Number of countries with |
| reform or eliminate incentives | repurpose, reform or | and other incentives | on the PINE database) | biodiversity-relevant taxes |
| harmful for biodiversity, in a just | eliminate incentives | harmful to biodiversity, | | t18.2. Number of countries with |
| and equitable way, reducing | harmful for biodiversity | that are redirected, | | biodiversity-relevant charges and |
| them by at least US\$ 500 billion | | repurposed or eliminated | | fees |
| per year, including all of the most harmful subsidies, and | | | | |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|--|--|--|---------------------|--|
| ensure that incentives, including public and private economic and regulatory incentives, are either | | | | t18.3. Number of countries with biodiversity-relevant tradable permit schemes |
| positive or neutral for biodiversity. | | | | 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, | 19.1 Increase financial resources from all sources | 19.0.1 Officialdevelopment assistance forbiodiversity19.0.2 Public expenditureand private expenditure on | | t19.1. Amount of funding provided through the Global Environment Facility and allocated to the biodiversity focal area (decision X/3) |
| increasing by at least US\$ 10 billion per year international financial flows to developing countries, leveraging private | | conservation and sustainable use of biodiversity and ecosystems | | t19.2. Amount and composition of biodiversity-related finance reported to the OECD Creditor |
| 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 | 19.2 International financial flows to developing countries | (19.0.1 Official development assistance for biodiversity) | | reporting system t19.3. Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) |
| | 19.3 Capacity-building and technology transfer and scientific 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) |
| framework. | | | | t19.5. Amount of biodiversity- related philanthropic funding |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|---|--|--|--|---|
| 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. | 20.1 Ensure that relevant knowledge guides decision-making 20.2 Promote awareness, education and research | 20.0.1 Indicator on biodiversity information and monitoring, including traditional knowledge, for management tbc* | 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) | 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) 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, | 21.1 IPLC 21.2 Women and girls | 21.0.1 Indicator on the degree to which indigenous peoples and local communities, women and girls as well as youth | | 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). |
| and respect their rights over lands, territories and resources, as well as by women and girls, and youth. | 21.3 Youth | participate in decision- making related to biodiversity tbc 21.0.2 Land tenure in the | | t21.2. Percentage of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the |

| Goal/Milestone/Target | Component | Headline indicator | Component indicator | Complementary indicators |
|-----------------------|-----------|---|----------------------------|--|
| | | traditional territories of indigenous peoples and local communities | | 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. 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 |