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 XIII/28 and 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]

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[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]

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[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 in-depth 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 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.0.1 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/ecosystem-accounting Ecosystem types based on IUCN categories	Near ready**
	A.0.2 Species Habitat Index	By species group		GEOBON: https://geobon.org/ebvs/indicators/ (Measures connectivity and integrity of habitats)	Existing, 2001 to present**
	A.0.3 Red list index	By species group	SDG (15.5.1)	SDG: IUCN: https://www.iucnredlist.org/	Existing, data from 1996 to present

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[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.

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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.sciencedirect.com/science/article/pii/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: https://seea.un.org/ecosystem-accounting. 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 biodiversity.	C.0.2 Indicator on non-monetary benefits tbc*	Tbd		CBD: An estimate of non-monetary benefits would fill a key knowledge gap; however, additional coordination would be required.	Needs development**
Goal D. The gap between available financial and other means of implementation, and those necessary to achieve the 2050 Vision, is closed.	D.0.1 Indicators on funding for implementation of the global biodiversity framework tbc*	By funding source		CBD: Aligned with indicators under Target 19	Needs development**
	D.0.1. Indicators on funding for implementation of the global biodiversity framework tbc (aligned with Target 19)*	Tbd		CBD: Could be collected through national reporting to capture gaps in alignment with the GBF, mainstreaming and means of implementation.	Needs development **
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 spatial plans that integrate biodiversity tbc*	By terrestrial and marine ecosystem type		CBD: Could be collected through self-assessment in national reporting and would link with SDG 6.5.1, 14.2.1 and 15.2.1.	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 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/detail/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: https://www.protectedplanet.net/en	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**

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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.	are affected by human wildlife conflict			Task Force: https://www.hwctf.org/	
	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/sustainable-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/sustainable-development-goals/indicators/1441/en/	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/explore-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: https://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-14	Existing on beach litter, from 2020
	7.0.3 Pesticide use per area of cropland	By pesticide type	FAO	FAO: http://www.fao.org/faostat/en/#data/EP/visualize	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/2019rf/index.html	Near ready

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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/ecosystem-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 systems.	10.0.1 Proportion of agricultural area under productive and sustainable agriculture		SDG (2.4.1)	SDG: FAO: http://www.fao.org/sustainable-development-goals/indicators/241/en/ (Measures sustainable agriculture as a percentage of total agricultural area)	Near ready through SDG process
	10.0.2 Progress towards sustainable forest management (Proportion of forest area under		SDG (15.2.1)	SDG: FAO: https://unstats.un.org/sdgs/metadata/?Text&Goal=15&Target (Measures sustainable forest	Near ready through SDG process

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	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/ecosystem-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-11-7-1/explore	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/sdgs/metadata/?Text=&Goal=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/sdgs/metadata/?Text=&Goal=15&Target=15.9	Existing, data from 2015 to present

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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/sdgs/metadata/?Text=&Goal=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		SDG (12.3.1b)	SDG : UNEP : https://www.unep.org/thinkeatsave/about/sdg-123-food-waste-index	Near ready through the SDG process
	16.0.2 Material footprint per capita	By type of material	SDG (8.4.1,12.2.1)	SDG: UNEP : https://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-12-1	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 women and girls, and youth.	21.0.2 Land tenure in the traditional territories of indigenous peoples and local communities	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/land-tenure	Near ready (existing survey collection from World Bank and UN-Habitat
	21.0.1 Indicator on the degree to which indigenous peoples and local communities, women and girls as well as youth participate in			Data on engagement of stakeholders is already included in NBSAPs and national reports. This would be	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)
	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 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*	A.1 Area of natural ecosystems	A.0.1 Extent of selected natural and modified ecosystems by type (i.e. forest, savannahs and grasslands, wetlands, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats)		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.2 Connectivity of natural ecosystems	A.0.2 Species Habitat Index	A.2.1 CMS connectivity indicator (CMS)	
	A.3 Integrity of natural ecosystems		A.3.1 Ecosystem Integrity Index	
	A.4 Abundance and distribution of populations of species		A.4.1 Species status information index (GEOBON) A.4.2 Living Planet Index	
	A.5 Species extinction rate	A.0.3 Red list index		
	A.6 Species extinction risk			
	A.7 Proportion of species that are threatened			

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
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.8 Maintenance of genetic diversity	A.0.4 The proportion of populations within species with a genetically effective population size > 500	A.8.1 Proportion of populations maintained within species (GEOBON)	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. Ecoregion 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

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
				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□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.
				a.52. Number of plant and animal genetic resources for food and agriculture secured in either

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
				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. *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.1 Nature and its contributions to people are fully accounted for	B.0.1 National environmental economic accounts of ecosystem services*		b.1. Expected loss of Phylogenetic Diversity (IPBES phylogenetic diversity indicator)
	B.2 Long-term sustainability of nature's contributions to people is ensured		B.2.1 Nature's regulating contributions including climate regulation, disaster prevention and other (from the environmental economic accounts)	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.3. Nature's contributions to people in decline restored		B.3.1 Nature's material contributions including food, water and others (from the environmental economic accounts)	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.4 Contribution to other relevant Sustainable Development Goals		B.4.1 Nature's non-material contributions including cultural (from the environmental economic accounts)	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

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

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
				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.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
	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 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
Goal D The gap between available financial and other means of implementation, and those necessary to achieve *Milestone D.1 Adequate financial resources to implement the framework are available and*	D.1 close the $700B financial gap	D.0.1. Indicators on funding for implementation of the global biodiversity framework tbc (aligned with Target 19)*		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

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
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.*				(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.2 avoid future costs and increase financial resources			

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
	D.3 other means are available and deployed D.4 financial and other resources planned or committed	D.0.2 Indicator on national biodiversity planning processes and means of implementation tbc*		

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 processes
				t1.2. 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 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.	2.1 Area of freshwater, marine and terrestrial ecosystems restored	2.0.1 Percentage of degraded or converted ecosystems that are under restoration		t2.1. Habitat distributional range
				t2.2. Index of Species Rarity Sites, High Biodiversity Areas, Large Mammal Landscapes, Intact Wilderness and Climate Stabilization Areas
	2.2 Connectivity		2.2.1 Maintenance and restoration of connectivity of natural ecosystems	
				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 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.	3.1 Area protected and conserved	3.0.1 Coverage of Protected areas and OECMS (by effectiveness)		t3.1. Protected area downgrading, downsizing and degazettement (PADDD)
	3.2 Areas of particular importance for biodiversity protected and conserved		3.2.1 Protected area coverage of key biodiversity areas (SDG 14.5.1 and 15.1.2)	t3.2. Status of key biodiversity areas
				t3.3. Protected area coverage of key biodiversity areas
	3.3 Effective management and equitable governance of the system of protected areas and other effective area-based conservation measures		3.3.1 Protected Area Management Effectiveness (PAME) (Protected Planet)	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)
	3.4 Connectivity within the system of protected areas and other effective area-based conservation measures		3.4.1 Species Protection 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

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 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.	4.1 Conservation and recovery actions		4.1.1 Green Status of Species Index (IUCN)	t4.1. Species threat abatement and restoration metric
	4.2 Wildlife conflict	4.0.1 Proportion of species populations that are affected by human wildlife conflict		t4.2. IUCN Green Status of Species Index by sub-indicators
	4.3 Genetic diversity	4.0.2 Number of plant genetic resources for food and agriculture secured in medium or long-term conservation facilities		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
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		t5.1. Sustainable watershed and inland fisheries index

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
species is sustainable, legal, and safe for human health.		and traded legally and sustainably		t5.2. Marine Stewardship Council Fish catch
		5.0.2 Proportion of fish stocks within biologically sustainable levels		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
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,	6.1 Rate of introduction and establishment	6.0.1 Rate of invasive alien species spread		t6.1. Number of invasive alien species in national lists as per the Global Register of Introduced and Invasive Speciest5.2. Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species
	6.2 Control or eradicate invasive alien species			
	6.3 Reducing the impact on priority species and priority sites		6.3.1 Rate of invasive alien species impact (GEOBON)	

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
focusing on priority species and priority sites.				
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.	7.1 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 pesticides leached or lost to the environment	7.0.3 Pesticide use per area of cropland		
	7.3 Amount of discharge of plastic waste	7.0.2 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)	
Target 8. Minimize the impact of climate change on biodiversity, contribute to mitigation and adaptation through ecosystem-based approaches, contributing at least 10 GtCO$_2$e per year to global mitigation efforts, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity.	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 UNFCCC and 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
	8.2 Contribute at least 10 GtCO$_2$ to mitigation and adaptation through ecosystem-based approaches	8.0.1 National green-house gas inventories from land use and land use change	8.2.1. Total climate regulation services provided by ecosystems by ecosystem type (System of Environmental Economic Accounts)	

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
	8.3 Ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity		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)	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.	9.1 Ensure benefits	9.0.1 National environmental-economic accounts of benefits from the use of wild species	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,	10.1 Agriculture	10.0.1 Proportion of agricultural area under	10.1.1. Average income of small-scale food producers, by sex and	t10.1. Changes in soil organic carbon stocks

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
in particular through the conservation and sustainable use of biodiversity, increasing the productivity and resilience of these production systems.		productive and sustainable agriculture	indigenous status (SDG indicator 2.3.2)	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)
	10.2 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	
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	11.0.1 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)	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)
	11.2 Quality and quantity of water		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)	
	11.3 Protection from hazards and extreme events		11.2.1. Number of deaths, missing persons and directly affected persons attributed to disasters per	

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
			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 areas and other densely populated areas.	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		
	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 genetic resources, and as relevant, of associated traditional knowledge, including through mutually agreed terms and prior and informed consent.	13.1 Measures to facilitate access to genetic resources ensuring fair and equitable sharing of benefits arising from the use of genetic resources	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*	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

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
				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		
	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)*	

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
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.	15.1 Businesses assess and report on their dependencies and impacts on biodiversity	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) t15.2. Change in water-use efficiency over time (SDG indicator 6.4.1)
	15.2 Businesses reduce their negative impacts on biodiversity			
	15.3 Reduce biodiversity-related risks to businesses		*Tbc (will align with the Task Force for Nature-related Financial Disclosures)*	
	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 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.	16.1 People have access to relevant information and alternatives	16.0.2 Material footprint per capita		
	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 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.	17.1 Measures to manage or control potential adverse impacts of biotechnology	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*	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	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

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
			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	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.	18.1 Redirect, repurpose, reform or eliminate incentives harmful for biodiversity	18.0.1 Value of subsidies and other incentives harmful to biodiversity, that are redirected, repurposed or eliminated	Positive incentives (based on the PINE database)	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)

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
				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.	19.1 Increase financial resources from all sources	19.0.1 Official development assistance for biodiversity 19.0.2 Public expenditure and private expenditure on conservation and sustainable use of biodiversity and ecosystems		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
	19.2 International financial flows to developing countries	*(19.0.1 Official development assistance for biodiversity)*		
	19.3 Capacity-building and technology transfer and scientific cooperation			

Goal/Milestone/Target	Component	Headline indicator	Component indicator	Complementary indicators
				technologies (SDG indicator 17.7.1)
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	20.0.1 Indicator on biodiversity information and monitoring, including traditional knowledge, for management tbc*		t20.1. Growth in number of records and species in the Living Planet Index database
	20.2 Promote awareness, education and research		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)	t20.2. 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.	21.1 IPLC	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 tbc 21.0.2 Land tenure in the traditional territories of indigenous peoples and local communities		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).
	21.2 Women and girls			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
	21.3 Youth			t21.3. Proportion of seats held by women in (a) national parliaments

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

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