

Draft monitoring framework for the post-2020 global biodiversity framework for review

I. Background

1. The second meeting of the Open-ended Working Group¹ on the Post-2020 Global Biodiversity Framework invited the Subsidiary Body on Scientific, Technical and Technological Advice at its twenty-fourth meeting to, among other things, carry out a scientific and technical review of the updated goals and targets, and related indicators and baselines, of the draft post-2020 global biodiversity framework. Under agenda item 3 the Subsidiary Body will consider this issue.
2. The present document, in tables 1 and 2, presents a draft monitoring framework for the 2050 Goals and the 2030 targets respectively. These tables are being made available for the purposes of peer review. In both tables' the updated formulations of the proposed 2050 goals and the 2030 targets as well as proposed 2030 milestones are provided for context only. Consideration of these will take place at the third meeting of the open-ended working group. Thus, review comments are not being sought on these parts of the post-2020 global biodiversity framework at this time. Column A of the tables provides draft components of the goals and targets. Columns B and C of the tables provide draft monitoring elements and indicators to be used at the global level to monitor progress in the implementation of the post-2020 global biodiversity framework. Further column D provides information on the period baseline data is available for the indicator and on the frequency that the indicator is updated where known. Review comments are being sought on columns A, B, C and D only.
3. Table 3 lists all the indicators in tables 1 and 2 in alphabetical order and indicates which goals and targets they are relevant to.
4. The indicators in the tables only include those which are currently operational at the global level, have underlying data and an organisation committed to their periodic update. However, some indicators for the Sustainable Development Goals which do not currently have global data have been included.
5. The indicators identified in the table are based on those previously identified in [decision XIII/28](#) and [decision X/3](#), those used for monitoring the implementation of the Sustainable Development Goals as well as indicators developed by the members of the Biodiversity Indicators Partnership. They also take into account information previously provided to the second meeting of the Working Group² as well as the submissions received in response to [notification 2019-108](#)³. Further background information on some of the indicators in the tables are identified in an associated information document which is also being made available for review.
6. Review comments should be provided by 25 July 2020 using the template accessible from <https://www.cbd.int/sbstta24/review.shtml>.

¹ [CBD/WG2020/REC/2/1](#)

² [CBD/WG2020/2/3/ADD1](#)

³ All of the submissions are accessible from <https://www.cbd.int/conferences/post2020/submissions/2019-108>

II. Draft monitoring framework for the post-2020 global biodiversity framework

Table 1 – Interim formulation of 2050 goals and milestones and associated monitoring elements and indicators

Updated 2050 goals and milestones (Not for review)	A. Components of the 2050 Goal	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row Number
Goal A The area, connectivity and integrity of natural ecosystems increased by at least [X%] supporting healthy and resilient populations of all species while reducing the number of species that are threatened by [X%] and maintaining genetic diversity 2030 Milestones i) The area, connectivity and integrity of natural ecosystems increased by at least [5%] ii) The number of species that are threatened is reduced by [X%] and the abundance of species has increased on average by [X%]	A1. Increased extent of natural ecosystems (terrestrial, freshwater and marine ecosystems)	Trends in area of forest ecosystems	Forest area as a proportion of total land area (SDG indicator 15.1.1)	1990-2015	1
			Tree cover loss	2001-2020, annually	2
		Trends in area of other terrestrial ecosystems	Biodiversity Habitat Index	2005, 2010, 2015	3
			Red List of Ecosystems	Every five years	4
		Trends in area of mangroves	Continuous Global Mangrove Forest Cover	2000-2014, every 5 years	5
			Change in the extent of water-related ecosystems over time (SDG indicator 6.6.1)	2005-2016	6
			Trends in mangrove extent	1996-2016	7
		Trends in area of coral reefs	Live coral cover	1970, annually	8
			Global coral reef extent	2018	9
		Trends in area of seagrass ecosystems	Global seagrass extent	2020	10
		Trends in area of other marine and coastal ecosystems	Global saltmarsh extent	2019	11
			Cumulative human impacts on marine ecosystems	2008	12
		Trends in wetlands	Wetland Extent Trends Index	1970-2015	13
			Change on the extent of water related ecosystems (SDG Indicator 6.6.1)	2018, triennially	14
	A2. Ecosystem integrity and connectivity (terrestrial, freshwater and marine ecosystems)	Trends in fragmentation and quality of forest ecosystems			15
		Trends in farmland biodiversity and sustainability of agricultural land			16

		Trends in fragmentation and quality of dry and sub-humid lands, grasslands, and other terrestrial ecosystems	Species Habitat Index	2001-2018, annually	17
			Biodiversity Habitat Index	2005, 2015, every 5 years	18
			Global Vegetation Health Products	1982, weekly	19
			Proportion of land that is degraded over total land area (SDG indicator for SDG 15.3.1)	2015	20
			Biodiversity Intactness Index	1900-2010 (global); 2000-2014 (tropical forest)	21
		Trends in fragmentation and quality of mangroves	Continuous Global Mangrove Forest Cover	2000-2014, every 5 years	22
		Trends in fragmentation and quality of coral reefs	Red List Index (coral species)	1998, updated periodically	23
			Average marine acidity (pH) measured at agreed suite of representative sampling stations (SDG indicator 14.3.1)		24
		Trends in fragmentation and quality of other marine and coastal ecosystems	Ocean Health Index	2012-2019, annually	25
			Red List Index (marine species)	1993 – 2020 annually	26
		Trends in fragmentation and quality of inland wetlands	Wetland Extent Trends Index	1970-2015	27
			Red List Index (wetland species)	1993 – 2020, annually	28
	A3. Prevent extinction and improve the conservation status of species	Trends in species extinctions	Number of species extinctions (birds and mammals).	1990, every ten years	29
			Number of extinctions prevented by conservation action	1993, every ten years	30
			Red List Index	1993, updated annually	31
		Trends in conservation status of species	Red List Index	1993, annually	32
			Species Protection Index	2001 to 2018, annually	33
	A4. Increase the population and health of species	Trends in species abundance	Living Planet Index (LPI).	1970, available every 2 years	34
			Species Habitat Index	2001-2018 annually	35

	A5. Maintain Genetic diversity	Trends in the diversity of wild species			36
		Trends in the diversity of cultivated plants, farmed and domesticated animals	Comprehensiveness of conservation of socioeconomically as well as culturally valuable species.	2018; every 3-5 years	37
			Number of plant and animal genetic resources for food and agriculture secured in either medium- or longterm conservation facilities (SDG 2.5.1)	1995-2018	38
			Proportion of local breeds classified as being at risk, extinction.	2000-2019	39
		Trends in the diversity of wild relatives	Red List Index (wild relatives of domesticated animals).	1988, updated annually	40
			Comprehensiveness of conservation of socioeconomically as well as culturally valuable species.	2018; every 3-5 years	41
	A6. Protection of critical ecosystems	Trends in area of terrestrial and inland water areas conserved	Protected area coverage	1819, monthly	42
			Coverage of other effective area-based conservation measures	2019, monthly	43
		Trends in area of coastal and marine areas conserved	Protected area coverage	1819, monthly	44
			Coverage of other effective area-based conservation measures	2019, monthly	45
		Trends in areas of particular importance for biodiversity conserved	Protected Area Coverage of Key Biodiversity Areas.	1900, annually	46
			Species Habitats Index	2001-2018 annually	47
		Trends in areas of particular importance for ecosystem services conserved			48
		Trends in ecological representativeness of areas conserve	Protected Area Representativeness Index (PARC-Representativeness)	1970 to 2010: decadal	49

			Protected Area Representativeness Index (PARC-Representativeness)	1970, every two years	50
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 people 2030 Milestones i) Nature contribute to the sustainable nutrition and food security, access to safe drinking water and resilience to natural disasters for at least [X] million people ii) Nature is valued through green investments, ecosystem service valuation in national accounts, and public and private sector financial disclosure	B1. Nature's regulating contributions including climate regulation, disaster prevention and other	Trends in habitat creation and maintenance	Number of certified forest areas under sustainable management with verified impacts on habitat conservation/ restoration	2018, every 5 years	51
			Species Habitat Index	2001-2018 annually	52
			Biodiversity Habitat Index	2005, 2010, 2015	53
		Trends in pollination and dispersal of seeds and other propagules	Red List Index (pollinating species)	1980, annually	54
		Trends in regulation of air quality			55
		Trends in regulation of climate	Number of certified forest areas under sustainable management with verified impacts on carbon sequestration/storage	2018, every 5 years	56
		Trends in regulation of ocean acidification			57
		Trends in regulation of freshwater quantity, quality, location and timing	Number of certified forest areas under sustainable management with verified impacts on water quality	2018, every 5 years	58
			Proportion of bodies of water with good ambient water quality (SDG indicator 6.3.2)	2019	59
		Trends in regulation of coastal water quality			60
		Trends in formation, protection and decontamination of soils and sediments			61
		Trends in regulation of hazards and extreme events	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1)	2005-2017	62

		Trends in regulation of detrimental organisms and biological processes			63
	B2. Nature's material contributions including food, water and others	Trends in the provision of energy supply from biological resources			64
		Trends in the provision of food and feed from biodiversity			65
		Trends in the provision of materials and assistance from biodiversity			66
		Trends in the provision of medicinal, biochemical and genetic resources from biodiversity			67
	B3. Nature's non-material contributions including cultural	Learning and inspiration			68
		Physical and psychological experiences			69
		Supporting identities			70
		Maintenance of Cultural values			71
GOAL C The benefits, from utilization of genetic resources are shared fairly and equitably 2030 Milestones i) Access and benefit sharing mechanisms are established in all countries ii) Benefits shared increased by [x%]	C1. Access to Genetic resources	Trends in access to genetic resources	Number of users that have provided information relevant to the utilization of genetic resources to designated checkpoints	2018, real time	72
			Number of checkpoint communiqués published in the ABS Clearing-House	2018, real time	73
	C2. Sharing of the benefits	Trends in the benefits from the access to genetic resources shared			74
		Trends in utilization of genetic resources			75
		Trends in monetary and non-monetary benefits from access to genetic resources shared			76
GOAL D Means of implementation is available to achieve all goals and targets the Framework 2030 Milestones	D1. Availability of sufficient financial resources	Trends in the mobilization financial resources from public international financial flows	(a) Official development assistance on conservation and sustainable use of biodiversity (SDG indicator 15.a.1)	2002-2018, annually	77
		Trends in public domestic resource mobilization	15.a.1 (b) revenue generated and finance mobilized from biodiversity-relevant economic	1990-2020, annually	78

i) By 2022, means to implement the Framework for the period 2020 to 2030 are identified or committed By 2030, means to implement the Framework for the period 2030 to 2040 are identified or committed			instruments (SDG indicator 15.a.1)		
		Trends in the mobilization of financial resources from private sector			79
		Trends in the mobilization of financial resources from charitable organisations	Amount of Biodiversity-related philanthropic funding	2017-2018	80
	D2. Sufficient capacity building, technology transfer and scientific cooperation	Trends in support to capacity building			81
		Trends in capacity building activities			82
		Trends in technology transfer			83
		Trends in scientific cooperation			84
	D3. Access to technology	Trends in access to relevant technologies			85

Table 2 – Interim formulation of 2030 targets and components and associated monitoring elements and indicators

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
Reducing threats to biodiversity					
Target 1 By 2030, [50%] of land and sea areas globally are under spatial planning addressing land/sea use change, retaining most of the existing intact and wilderness areas, and allow to restore [X%] of degraded freshwater, marine and terrestrial natural ecosystems and connectivity among them	T1.1. Increase in area of terrestrial, freshwater and marine ecosystems under spatial planning	Trends in area under spatial land-use plans	Proportion of transboundary basin area with an operational arrangement for water cooperation (SDG indicator 6.5.2)	2017	1
			Number of countries using ecosystem-based approaches to managing marine areas (SDG indicator 14.2.1)		2
		Trends in area under integrated coastal zone management			3
		Trends in area under marine spatial planning			4
		Trends in the area under integrated water resources management	Degree of integrated water resources management (SDG indicator 6.5.1)	2017	5
	T1.2. Prevention of reduction and fragmentation of natural habitats due to land/sea use change	Trends in extent and rate of change of forest ecosystems	Forest area as a proportion of total land area (SDG indicator 15.1.1)	2000-2015	6
			Primary forest deforestation	2002 (annually)	7
		Trends in extent and rate of change of dry and sub-humid lands	Trends in land cover change (SDG indicator 15.3.1)	2000-2018, annually	8
		Trends in extent and rate of change of other terrestrial ecosystems	Biodiversity Habitat Index	2005, 2010, 2015	9
			Mountain Green Cover Index (SDG indicator 15.4.2)	2017	10
			Trends in mangrove extent	1996-2016	11

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
		Trends in extent and rate of change of mangroves	Continuous Global Mangrove Forest Cover	2000-2014, every 5 years	12
		Trends in extent and rate of change of coral reefs	Red List Index (coral species)	1998, updated periodically	13
			Live coral cover	1970, annually	14
		Trends in extent and rate of change of seagrass ecosystems	Global seagrass extent	2020	15
		Trends in extent and rate of change of other marine and coastal ecosystems	Red List Index for Ecosystems	Approximately every 5 years	16
			Cumulative human impacts on marine ecosystems.	2008	17
			Ocean Health Index.	2012-2019, annually	18
		Trends in extent and rate of change of wetlands	Wetland Extent Trends Index	1970-2015	19
			Change on the extent of water related ecosystems (SDG Indicator 6.6.1)	2001	20
		Trends in forest and agriculture lands as a proportion of total land area	Percentage of cropped landscapes with at least 10% natural land	2015, annually	21
			Forest Area as proportion of total land area (SDG indicator 15.1.1)	1990	22
	T1.3. Priority retention of intact / wilderness areas	Trends in extent of intact / wilderness ecosystems	Ecoregion Intactness Index	2005	23
	T1.4. Restoration of degraded ecosystems	Trend in the area of degraded terrestrial ecosystems restored	Proportion of land that is degraded over total land area (SDG indicator 15.3.1)	2000-2015, every four years	24
		Trend in the area of degraded corals restored			25

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
		Trend in the area of degraded marine and coastal ecosystems restored	Cumulative human impacts on marine ecosystems.	2008	26
			Ocean Health Index.	2012-2019, annually	27
		Trend in the area of degraded wetlands restored			28
		Trend in the area of converted agricultural lands restored	Percentage of cropped landscapes with at least 10% natural land	2015, Annually	29
	T1.5. Maintenance and restoration of connectivity of natural ecosystems	Trends in habitat connectivity	Bioclimatic Ecosystem Resilience Index (BERI)	2005, 2010, 2015	30
			Protected Connected (Protconn).	20016, 2018, annually	31
			Red List Index (SDG indicator 15.5.1)	1993, updated annually	32
			Red List Index (migratory species)	1993 – 2020, annually	33
			Proportion of land that is degraded over total land area (SDG Indicator 15.3.1)	2000-2015, every four years	34
	Target 2 By 2030, protect and conserve through well connected and effective system of protected areas and other effective area-based conservation measures at least 30% of the planet with the focus on areas particularly important for biodiversity	Trends in extent of protected areas	Protected area coverage.	1819-2020, annually	35
			Coverage of protected areas in relation to marine areas (SDG indicator 14.5.1)	2018	36
			Coverage by protected areas of important sites for mountain biodiversity (SDG indicator 15.4.1)		37

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
	T2.2. Areas of particular importance for biodiversity are protected and conserved as priority	Trends in extent of areas under other area-based conservation measures	Coverage of other effective area-based conservation measures	2019, monthly	38
		Trends in proportion of areas of particular importance for biodiversity protected and conserved	Protected Area Coverage of key biodiversity areas	1900, annually	39
			Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	1819 – 2020, annually	40
			Species Protection Index	2001 to 2018, annually	41
			Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type (SDG indicator 15.1.2)		42
	T2.3. Representative system of protected areas and other effective area-based conservation measures	Trends in ecological representativeness of areas conserved	Protected Area Representativeness Index (PARC-Representativeness)	1970 to 2010: decadal	43
			Proportion of terrestrial, freshwater and marine ecological regions which are conserved by PAs or OECMs.	2019, annually	44
			Species Protection Index.	2001-2018, annually	45
	T2.4. Effective management and equitable governance of	Trends in management effectiveness	Protected Areas Management Effectiveness	2017, monthly	46

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
	the system of protected areas and other effective area-based conservation measures		Trends in Protected area downgrading, downsizing and degazettement (PADDD)	1892-2018	47
		Trends in proportion of protected areas and other effective area based conservation measures under various governance regimes	Number of certified forest areas under sustainable management with verified impacts on biodiversity conservation	2018, every five years	48
	T2.5. Connectivity within the system of protected areas and other effective area-based conservation measures	Trend in connectivity of protected areas and other effective area-based conservation measures	Protected Area Connectedness Index (PARC-Connectedness).	2005, 2010, 2015, 2019	49
			Protected Connected (Protconn).	2016-2018, annually	50
	T2.6. Increased protection and conservation effectiveness	Trend in conservation effectiveness of protected areas and other area-based conservation measures	Protected Areas Management Effectiveness	2017-2019.	51
	T2.7. Integration into landscape and seascape context	Policy and governance practices outside of protected areas and OECMs compatible with their management objectives			52
Target 3 By 2030, ensure active management actions to enable wild species of fauna and flora recovery and conservation, and reduce human-wildlife conflict by [X%]	T3.1. Active recovery and conservation management actions	Trend in ex-situ conservation measures	Red List Index (SDG indicator 15.5.1)	1993, annually	53
		Trends in species recovery programmes	Percentage of threatened species that are improving in status.	1993	54
	T3.2. Reduced human-wildlife conflicts	Trend in human-wildlife conflicts			55
Target 4	T4.1. Harvest is legal, sustainable and safe for	Trends in proportion of biological resources harvested legally	Proportion of traded wildlife that was poached or illicitly		56

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
By 2030, ensure that the harvesting, trade and use of wild species of fauna and flora, is legal, at sustainable levels and safe.	human health and biodiversity		trafficked (SDG indicators 15.7.1 and 15.c.1)		
			Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1).	2018	57
		Trends in proportion of biological resources harvested within the established harvest limits	Proportion of fish stocks within biologically sustainable levels (SDG indicator 14.4.1)	1974	58
		Trends in proportion of biological resources harvested through sustainable harvest practices			59
		Trends in measures ensuring safe harvesting operations			60
	T4.2. Trade is legal, sustainable and safe for human health and biodiversity	Trends in proportion of biological resources traded legally	Proportion of traded wildlife that was poached or illicitly trafficked (SDG indicators 15.7.1 and 15.c.1)		61
		Trends in proportion of biological resources traded within the established limits/quotas			62
		Trends in measures ensuring safety of trade operations			63
	T4.3. Use is legal, sustainable and safe for human health and biodiversity	Trends in proportion of biological resources used legally			64
		Trends in proportion of biological resources used within the established limits/quotas			65

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
		Trends in measures ensuring safe use of biodiversity			66
Target 5 By 2030, manage, and where possible control, pathways for the introduction of IAS, achieving [50%] reduction in the rate of new introductions, and eradicate, control and manage IAS to eliminate or reduce their impacts, including in at least [50%] of priority sites	T5.1. Identification, control and management of pathways for introduction of invasive alien species	Trends in timely identification of pathways for introduction			67
		Trends in development of control and management measures for pathways for introduction	Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species (SDG indicator 15.8.1)		68
			Trends in the numbers of invasive alien species introduction events.	1970	69
		Trends and efficiency of detection of invasive alien species			70
	T5.2. Effective detection, identification, prioritisation and monitoring of invasive alien species	Trends in identification of invasive alien species			71
		Trends monitoring of invasive alien species			72
	T5.3. Establishment of measures for eradication, control and management of invasive alien species	Trends in the rate of invasive species eradication	Trends in invasive alien species vertebrate eradications.	1870-2016	73
		Trends in establishing control measures	Trends in policy responses, legislation and management plans to control and prevent spread of invasive alien species	1967 – 2016	74
			Proportion of countries adopting relevant national legislation and adequately		75

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			resourcing the prevention or control of invasive alien species (SDG indicator 15.8.1)		
		Trends in establishing management measures			76
	T5.4. Eliminated or reduced impacts of IAS	Trends in the impact of invasive alien species	Red List Index (impacts of invasive alien species)	1993 – 2020, annually	77
	T5.5. Eradication, control or management of IAS in priority sites	Trends in elimination of AIS and their impacts in islands			78
		Trends in elimination of AIS and their impacts in protected areas and areas with other effective area-based conservation measures			79
		Trends in elimination of AIS and their impacts in intact / wilderness areas			80
Target 6 By 2030, reduce pollution from all sources, including reducing excess nutrients [by x%], biocides [by x%], plastic waste [by x%] to levels that are not harmful to biodiversity and ecosystem functions and human health	T6.1. Reduction of pollution from excess nutrients	Trends in levels of pollution from nitrogen	(a) Index of coastal eutrophication; and (b) plastic debris density (SDG indicator 14.1.1)		81
			Nitrogen Balances	1990-2017, biannually	82
			Trends in Loss of Reactive Nitrogen to the Environment.	2008	83
			Trends in Nitrogen Deposition.	1860	84
		Trends in levels of pollution from phosphorus	Phosphorus balances	1990-2017, biannually	85
	T6.2. Reduction of pollution from biocides	Trends in levels of pollution from excess pesticides			86

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
		Trends in levels of pollution from excess herbicides			87
		Trends in levels of pollution from excess other biocides			88
	T6.3. Reduction of pollution from plastic	Trends in levels of pollution with marine plastic	(a) Index of coastal eutrophication; and (b) plastic debris density (SDG Indicator 14.1.1)		89
		Trends in levels of pollution from plastic in terrestrial and freshwater ecosystems			90
	T6.4. Reduction of pollution from other sources	Trends in levels of pollution from organic wastes			91
		Trends in levels of pollution from lead			92
		Trends in levels of pollution from noise			93
		Trends in levels of pollution from artificial light			94
		Trends in levels of pollution from sediments			95
		Trends in the levels of hazardous waste	(a) Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment (SDG indicator 12.4.2)		96
Target 7 By 2030, increase contributions to climate change mitigation adaption and disaster risk reduction from nature-based solutions and ecosystems based approached, ensuring resilience	T7.1. Increased biodiversity contribution to climate change mitigation, adaptation and disaster risk reduction	Trends in carbon stocks in different ecosystems			97
		Trends in contribution to climate change adaptation			98
		Trends in contribution to disaster risk reduction	Number of countries that adopt and implement national disaster risk reduction strategies in line		99

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
and minimising any negative impacts on biodiversity			with the Sendai Framework for Disaster Risk Reduction 2015–2030 (SDG indicator 13.1.2)		
			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)	2015	100
	T7.2. Minimised negative impacts on biodiversity from any mitigation, adaptation and disaster risk reduction measures	Trends in integration of biodiversity consideration in design of mitigation, adaptation and disaster risk reduction projects	Number of least developed countries and small island developing States with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications (SDG indicator 13.b.1)		101
		Trends in environmental impacts assessments of mitigation, adaptation and disaster risk reduction projects			102
Meeting people’s needs through sustainable use and benefit-sharing					
Target 8	T8.1. Sustainable management of aquatic wild	Trends in fish stocks.	Proportion of fish stocks within biologically	1974-2017	103

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
By 2030, ensure benefits, including nutrition, food security, livelihoods, health and wellbeing, for people, especially for the most vulnerable through sustainable management of wild species of fauna and flora	species of fauna and flora, including fisheries		sustainable levels (SDG indicator 14.4.1)		
			Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries (SDG indicator 14.7.1)	2011	104
		Trends in sustainable fisheries management	Proportion of fish stocks within biologically sustainable levels (SDG indicator 14.4.1)	1974	105
			Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1)	2018	106
			Degree of application of a legal/regulatory/ policy/institutional framework which recognizes and protects access rights for small-scale fisheries (SDG Indicator 14.B.1)	2015, every two years	107
			MSC Certified Catch.	2000-2019	108
			Degree of application of a legal/regulatory/	2015	109

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			policy/institutional framework which recognizes and protects access rights for small-scale fisheries (SDG indicator 14.B.1)		
		Trends in population and extinction risk in bycatch species	Red List Index (albatrosses and large petrels)	1988, updated every 4 years	110
			Living Planet Index (LPI) (trends in target and bycatch species)	1970, annually	111
		Trends in aquatic plants			112
		Trends in Invertebrate stocks	Proportion of fish stocks under sustainable management certification schemes	1974, every two or three years	113
	T8.2. Sustainable management of terrestrial wild species of fauna and flora	Trends in terrestrial wild species of fauna used for food and medicine	Number of plant and animal genetic resources for food and agriculture secured in medium or long term conservation facilities (SDG indicator 2.5.1)	1995-2019, annually	114
			Average income of small- scale food producers, by sex and indigenous status (SDG indicator 2.3.2)		115
			Volume of production per labour unit by classes of farming/pastoral/ forestry	2005	116

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			enterprise size (SDG indicator 2.3.1)		
Target 9 By 2030, support the productivity, sustainability and resilience of biodiversity in agricultural and other managed ecosystems through conservation and sustainable use of such ecosystems, reducing productivity gaps by at least [50%]	T9.1. Sustainable management of agricultural biodiversity, including soil biodiversity, cultivated plants and farmed and domesticated animals and of wild relatives	Trends in area of agriculture under sustainable practices	Proportion of land that is degraded over total land area (SDG indicator 15.3.1)		117
			Proportion of agricultural area under productive and sustainable agriculture (SDG indicator 2.4.1)		118
			Areas of agricultural land under conservation agriculture.		119
		Trends in soil quality			120
		Trends in pollinators	Red List Index (pollinating species)	1993 – 2020, updated periodically	121
		Trends in genetic diversity of cultivated plants and of wild relatives	Number of plant and animal genetic resources for food and agriculture secured in either medium- or longterm conservation facilities (SDG indicator 2.5.1)	1995-2019	122
		Trends in genetic diversity of domesticated animals and of wild relatives	Proportion of local breeds classified as being at risk of extinction	1980 -2020	123
	T9.2. Sustainable management of aquaculture	Trends in production of aquaculture under sustainable practices			124
	T9.3. Sustainable management of all types of forests	Trends in proportion of area of forests under sustainable practices	Progress towards sustainable forest management (SDG indicator 15.2.1)	2000 -2018	125

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			Area of forest under sustainable management: total FSC and PEFC forest management certification	1995-2017	126
Target 10 By 2030, ensure that, nature based solutions and ecosystem approach contribute to regulation of air quality, hazards and extreme events and quality and quantity of water for at least [XXX million] people	T10.1. Regulation of air quality	Trends in ecosystems contributing to air quality			127
	T10.2. Regulation of hazards and extreme events	Trends in hazardous and extreme events	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1)	2005	128
	T10.3. Regulation of freshwater quantity, quality, location and timing	Trends in natural freshwater ecosystems proving good ambient water	Proportion of bodies of water with good ambient water quality (SDG indicator 6.3.2)	2017	129
			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)	2014	130
			Change in the extent of water-related ecosystems over time (SDG indicator 6.6.1)		131
Target 11	T11.1. Access to green/blue spaces	Trends in access to green/blue spaces	Average share of the built-up area of cities that is open		132

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
By 2030, increase benefits from biodiversity and green/blue spaces for human health and well-being, including the proportion of people with access to such spaces by at least [100%], especially for urban dwellers			space for public use for all, by sex, age and persons with disabilities (SDG indicator 11.7.1)		
	T11.2. Contributions of biodiversity to human health and well-being	Trends in species that provide essential services			133
		Trends in contributions to human health and well-being from forest ecosystems			134
		Trends in contributions to human health and well-being from other terrestrial ecosystems	Ratio of land consumption rate to population growth rate (SDG indicator 11.3.1)		135
		Trends in contributions to human health and well-being from mangroves			136
		Trends in contributions to human health and well-being from coral reefs			137
		Trends in contributions to human health and well-being from other marine and coastal ecosystems			138
Target 12 By 2030, increase by [X] benefits shared for the conservation and sustainable use of biodiversity through ensuring access to and the fair and equitable sharing of benefits arising from utilization of genetic resources and associated traditional knowledge	T12.1. Access to genetic resources	Trends in access to genetic resources	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	2018, annual	140
			Total number of permits or their equivalent granted for access to genetic resources	2018, approximately every four years	141

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			Total number of internationally recognized certificates of compliance published in the ABS Clearing-House	2016, real time	142
			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.	2018, real time	143
			Number of countries that require prior informed consent that have published information on ABS procedures in the ABS Clearing-House.	2018, real time	144
			Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits (SDG Indicator 15.6.1)	2018, annual	145

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
	T12.2. Benefit shared from the use of genetic resources	Trends in the benefits from the access to genetic resources shared			146
		Trends in the number of countries that have adopted legislative, administrative or policy frameworks to ensure fair and equitable sharing of benefits	Number of countries that have legislative, administrative and policy frameworks or measures reported to the ABS Clearing-House	2018, real time	147
			Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits (SDG Indicator 15.6.1)	2018, annual	148
		Trends in the contribution of benefits to conservation and sustainable use	Estimated % of monetary and non- monetary benefits directed towards conservation and sustainable use of biodiversity		149
	T12.3. Benefits resulting from use of traditional	Trends in use of traditional knowledge associated with genetic resources			150

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
	knowledge associated with genetic resources	Trends in benefits generated and shared from the use of traditional knowledge associated with genetic resources			151
Tools and solutions for implementation and mainstreaming					
Target 13 By 2030, integrate biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies and accounts at all levels, ensuring that biodiversity values are mainstreamed across all sectors and integrated into assessments of environmental impacts	T13.1. Biodiversity reflected in policies and planning at all levels	Trends in integration of biodiversity and ecosystem service values into planning processes	(a) Number of countries that have established national targets in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011–2020 in their national biodiversity strategy and action plans and the progress reported towards these targets; and (b) integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental- Economic Accounting (SDG indicator 15.9.1)	2020	152
			Number of countries with mechanisms in place to enhance policy coherence of sustainable development (SDG indicator 17.14)		153

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
		Trends in integration of biodiversity and ecosystem service values into development processes			154
		Trends in integration of biodiversity and ecosystem service values into poverty reduction strategies			155
		Trends in integration of biodiversity and ecosystem service values into sectoral plans			156
	T13.2. Biodiversity reflected in national and other accounts	Trends in integration of biodiversity and ecosystem service values into national accounts	(a) Number of countries that have established national targets in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011–2020 in their national biodiversity strategy and action plans and the progress reported towards these targets; and (b) integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting15.9.1)	2006	157
		Trends in integration of biodiversity and ecosystem service values into other accounts			158

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
	T13.3. Biodiversity values are reflected in policies and regulations, including on biodiversity inclusive environmental impact assessments and strategic environmental assessments	Trends in the number of policies and regulations which incorporate biodiversity considerations			159
		Trends in the number of policies and regulations on environmental impact assessment which incorporate biodiversity considerations			160
		Trends in the number of policies and regulations requiring the use of strategic environmental impact assessment which incorporate biodiversity considerations			161
Target 14 By 2030, achieve reduction of at least [50%] in negative impacts on biodiversity by ensuring production practices and supply chains are sustainable	T14.1. Reduction of at least [50%] in negative impacts on biodiversity	Trends in ecological limits reached or surpassed	Ecological Footprint	1961-2016	162
			Human Appropriation of Net Primary Production (HANPP)	1960-2005	163
			Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP (SDG indicators 8.4.2 and 12.2.2)	2000-2017	164
			Change in water use efficiency over time (SDG indicator 6.4.1).	1998-2002	165
			Level of water stress: freshwater withdrawal as a proportion of available freshwater resources (SDG indicator 6.4.2).		166

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
	T14.2. Sustainable production practices, including circular economy and waste management and sustainable supply chains at national and international levels	Trends in sustainable production in sectors	Number of countries developing, adopting or implementing policy instruments aimed at supporting the shift to sustainable consumption and production (SDG indicator 12.1.1)	2018, every 2 years	167
			CO ₂ emission per unit of value added (SDG indicator 9.4.1)		168
			Material footprint, material footprint per capita, and material footprint per GDP (SDG indicators 8.4.1 and 12.2.1)		169
			Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP (SDG indicators 8.4.2 and 12.2.2)	2000-2017	170
			Change in water-use efficiency over time (SDG indicator 6.4.1)		171
			Number of countries developing, adopting or implementing policy instruments aimed at		172

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			supporting the shift to sustainable consumption and production (SDG indicator 12.1.1)		
			Number of companies publishing sustainability reports (SDG indicator 12.6.1)		173
			Number of MSC Chain of Custody Certification holders by distribution country	2000-2019	174
		Trends in the application of circular economy principles and practices			175
		Trends in waste management	(a) Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment (SDG indicator 12.4.2)		176
	T14.3. Sustainable supply chains at national and international levels	Trends in certification of supply chains	Area of forest under sustainable management: total FSC and PEFC forest management certification	1995-2017;	177
		Trends by financial sector in developing and applying biodiversity risk assessment policies and processes, demonstrating decreasing negative impacts on ecosystems and biodiversity in their portfolios and trends in developing tools			178

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
		for biodiversity financing, demonstrating increasing amounts of dedicated finance.			
		Trends in a proportion of supply chains which are legal and sustainable	MSC Certified Catch	2000-2019	179
Target 15 By 2030, eliminate unsustainable consumption patterns, ensuring people everywhere understand and appreciate the value of biodiversity, make responsible choices commensurate with 2050 biodiversity vision, taking into account individual and national cultural and socioeconomic conditions	T15.1. Sustainable consumption patterns	Trends in use of non-renewable natural resources	Material footprint, material footprint per capita, and material footprint per GDP (SDG indicators 8.4.1 and 12.2.1)	2000	180
			Number of countries developing, adopting or implementing policy instruments aimed at supporting the shift to sustainable consumption and production (SDG indicator 12.1.1)		181
			Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP (SDG indicators 8.4.2 and 12.2.2)	2000-2017	182
			Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP (SDG indicators 8.4.2 and 12.2.2)	2000-2017	183

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			National recycling rate, tons of material recycled (SDG indicator 12.5.1)		184
		Trends in use of renewable natural resources	(a) Food loss index and (b) food waste index (SDG indicator 12.3.1)	2019, annually	185
			Level of water stress: freshwater withdrawal as a proportion of available freshwater resources (SDG indicator 6.4.2)	2017	186
		Trends in use of biological resources			187
		Trends in ecological limits reached or surpassed	Ecological Footprint	1961-2016	188
			Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP (SDG indicators 8.4.2 and 12.2.2)	2000-2017	189
	T15.2. New vision of good quality of life based on sustainability and new social norms for sustainability	Trends in public engagement and attitudes towards biodiversity	Biodiversity Engagement Indicator	2009 – 2018	190
			Biodiversity Barometer	2009	191
			WAZA bio-literacy survey (Biodiversity literacy in global zoo and aquarium visitors)	2012-2015	192
	T15.3. Peoples' responsibility for their choices	Trends in demand for more environmentally friendly products			193

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
Target 16 By 2030, establish and implement measures to prevent, manage or control potential adverse impacts of biotechnology on biodiversity and human health reducing these impacts by [X]	T16.1. Measures to prevent potential adverse impacts of biotechnology on biodiversity and human health	Trends in development and adoption of the necessary biosafety legal, administrative and other measures	Percentage of Parties that have the necessary biosafety legal and administrative measures in place	2019, every two to four years	194
			Percentage of Parties that implement their biosafety measures	2019, every two to four years	195
			Percentage of Parties that have the necessary measures and means for detection and identification of products of biotechnology.	2019, every two to four years	196
			Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol.	2019, every two to four years	197
	T16.2. Measures to manage adverse impacts of biotechnology on biodiversity and human health	Trends in scientifically sound risk assessments and management of the identified risks.	Percentage of Parties that carry out scientifically sound risk assessments to support biosafety decision-making	2019, every two to four years	198
			Percentage of Parties that establish and implement risk management measures	2019, every two to four years	199
			Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol.	2019, every two to four years	200

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
	T16.3. Measures to control adverse impacts of biotechnology on biodiversity and human health	Trends in number of countries that share and have access to biosafety-related information for the safe use of the products of biotechnology	Percentage of Parties with mechanisms to facilitate the sharing of and access to information on biosafety.	2019, every two to four years	201
			Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol.	2019, every two to four years	202
	T16.4 Restoration and compensation for damage to biodiversity caused by LMOs	Trends in number of countries that have systems in place for restoration and compensation for damage to biodiversity	Percentage of Parties with legal and technical measures for restoration and compensation.	2019, every two to four years	203
			Percentage of Parties to the Nagoya – Kuala Lumpur Supplementary Protocol implementing the relevant provisions of the Supplementary Protocol.	2019, every two to four years	204
Target 17 By 2030, redirect, repurpose, reform or eliminate incentives harmful for biodiversity, including [X] reduction in the most harmful subsidies, ensuring that incentives, including public and private economic and regulatory incentives, are either positive or neutral for biodiversity	T17.1. Increase in positive public and private economic and regulatory incentives	Trends in development and application of public incentives that promote biodiversity conservation and sustainable use	Number of countries with biodiversity-relevant taxes	1980-2019, annually	205
			Number of countries with biodiversity-relevant charges and fees	1980-2019, annually	206
		Trends in development and application of private incentives that promote biodiversity conservation and sustainable use	Number of countries with biodiversity-relevant tradable permit schemes	1980-2020, annually	207
	T17.2. Elimination, phasing out or reform of incentives	Trends in the number and value of subsidies, harmful to biodiversity	Trends in potentially environmentally harmful	1990- 2019	208

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
	and subsidies the most harmful to biodiversity		elements of government support to agriculture (producer support estimate)		
			Trends in the number and value of government fossil fuel support measures	2010 – 2020, annually	209
			Amount of fossil-fuel subsidies per unit of GDP (production and consumption)(SDG indicator 12.c.1)	2013	210
Target 18 By 2030, increase by [X%] financial resources from all international and domestic sources, through new, additional and effective financial resources commensurate with the ambition of the goals and targets of the Framework and implement the strategy for capacity-building and technology transfer and scientific cooperation to meet the needs for implementing the post2020 global biodiversity framework	T18.1. Identification of funding needs to meet ambition of the goals and targets of the Framework	Trends in the number of countries which have assessed funding needs	Number of countries that have (a) Assessed values of biodiversity, in accordance with the Convention, (b) Identified and reported funding needs, gaps and priorities (c) Developed national financial plans for biodiversity; (d) Been provided with the necessary funding and capacity building to undertake the above activities; (decision X/3)	2020	211
	T18.2. Increase in financial resources from international sources	Trends in the mobilization financial resources from public international financial flows	(a) Official development assistance on conservation and sustainable use of	2002-2018, annually	212

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			biodiversity (SDG indicator 15.a.1)		
			Dollar value of all resources made available to strengthen statistical capacity in developing countries (SDG indicator 17.19.1)	2006	213
			Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries (SDG indicator 17.9.1)	2010	214
			Amount of funding provided through the Global Environment Facility and allocated to biodiversity focal area (decision X/3)	2020	215
			Amount and composition of biodiversity-related finance reported to the OECD Creditor reporting system		216
		Trends in the mobilization of financial resources from private sector			217
		Trends in the mobilization of financial resources from charitable organisations			218

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
	T18.3. Increase in financial resources from domestic sources	Trends in public domestic resource mobilization	Number of Parties with a nationally determined target for increasing the level of domestic resources, reported to the Convention		219
		Trends in the mobilization of financial resources from private sector			220
		Trends in the mobilization of financial resources from charitable organisations			221
	T18.4. Implementation of the strategy for capacity - building	Trends in support to capacity building			222
		Trends in capacity building activities			223
	T18.5. Implementation of the strategy for technology transfer and scientific cooperation	Trends in technology transfer	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)		224
		Trends in scientific cooperation			225
Target 19 By 2030, ensure that quality information, including traditional knowledge, is available to decision makers and public for the effective management of biodiversity through promoting awareness, education and research	T19.1. Availability of reliable and up-to-date biodiversity related information	Trends in the availability of biodiversity related information	Growth in Species Occurrence Records Accessible Through GBIF	2008 -2017	226
			Species Status Information Index	1950 -2019, annually	227
			Growth in number of records and species in the Living Planet Index database	2012, annually	228

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			Proportion of known species assessed through the IUCN Red List.	1993 – 2020 annually	229
			Proportion of total research budget allocated to research in the field of marine technology (SDG indicator 14.A.1)	2009	230
			Number of companies publishing sustainability reports (SDG indicator 12.6.1)		231
	T19.2. Promotion of awareness of values of biodiversity	Trends in awareness of biodiversity values	Biodiversity Barometer	2009	232
			WAZA bio-literacy survey (Biodiversity literacy in global zoo and aquarium visitors)	2012-2015	233
	T19.3. Promotion of biodiversity in education	Trends in the integration of biodiversity into academic curricula	Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment (SDG indicators 4.7 and 12.8.1)		234
			Extent to which (i) global citizenship education and (ii)		235

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment (SDG indicators 4.7.1 and 12.8.1))		
	T19.4. Availability of research and knowledge, including traditional knowledge, innovations and practices of indigenous peoples and local communities with their free, prior and informed consent	Trends in the development of biodiversity related knowledge	Number of assessments on the IUCN Red List of threatened species	1993 – 2020 annually	236
		Trends in access to biodiversity related knowledge			237
		Trends in documentation and use of traditional knowledge, innovations and practices with their free, prior and informed consent	Trends of linguistic diversity and numbers of speakers of indigenous languages (B) (decision VII/30 and VIII/15)		238
Target 20 By 2030, ensure equitable participation in decision-making related to biodiversity and ensure rights over relevant resources of indigenous peoples and local communities, women and girls as well as youth, in accordance with national circumstances	T20.1. Equitable participation of IPLCs in decision-making related to biodiversity and rights over relevant resources	Trends in the participation of indigenous peoples and local communities in decision making	Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (decision X/43)		239
			Proportion of population who believe decision making is inclusive and responsive, by		240

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
			sex, age, disability and population group (SDG indicator 16.7.2).		
		Trends in the recognition of rights over relevant resources	Trends in the practice of traditional occupations (decision X/43)		241
			Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (decision X/43)		242
			Proportion of population who believe decision making is inclusive and responsive, by sex, age, disability and population group (SDG indicator 16.7.2).		243
	T20.2. Equitable participation of women and girls in decision-making related to biodiversity and rights over relevant resources	Trends in the participation of women and girls in decision making	Proportion of seats held by women in (a) national parliaments and (b) local governments (SDG indicator 5.5.1)	2000	244
			Proportion of countries with systems to track and make public allocations for gender equality and women’s empowerment (SDG indicator 5.c.1)		245

Updated 2030 Targets (Not for review)	A. Components of the 2030 targets	B. Monitoring Elements	C. Indicators	D. Period of availability of baseline data and frequency of updates	Row number
		Trends in the recognition of rights over relevant resources			246
	T20.3. Equitable participation of youth in decision-making related to biodiversity and rights over relevant resources	Trends in the participation of youth in decision making			247
		Trends in the recognition of rights over relevant resources			248

Table 3 – Compilation of proposed global indicators from tables 1 and 2 organised alphabetically and illustrating the goals and targets to which they are relevant

A. Proposed Global Indicators	B. Relevant Goals and Targets	Row Number
(a) Food loss index and (b) food waste index (SDG indicator 12.3.1)	15	1
(a) Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment (SDG indicator 12.4.2)	6, 14	2
(a) Index of coastal eutrophication; and (b) plastic debris density (SDG indicator 14.1.1)	6	3
(a) Number of countries that have established national targets in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011–2020 in their national biodiversity strategy and action plans and the progress reported towards these targets; and (b) integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting (SDG indicator 15.9.1)	13	4
(a) Official development assistance on conservation and sustainable use of biodiversity (SDG indicator 15.a.1)	D, 18	5
15.a.1 (b) revenue generated and finance mobilized from biodiversity-relevant economic instruments (SDG indicator 15.a.1)	D	6
Amount and composition of biodiversity-related finance reported to the OECD Creditor reporting system	18	7
Amount of Biodiversity-related philanthropic funding	D	8
Amount of fossil-fuel subsidies per unit of GDP (production and consumption)(SDG indicator 12.c.1)	17	9
Amount of funding provided through the Global Environment Facility and allocated to biodiversity focal area (decision X/3)	18	10
Area of forest under sustainable management: total FSC and PEFC forest management certification	9, 14	11
Areas of agricultural land under conservation agriculture.	9	12
Average income of small-scale food producers, by sex and indigenous status (SDG indicator 2.3.2)	8	13
Average marine acidity (pH) measured at agreed suite of representative sampling stations (SDG indicator 14.3.1)	A	14
Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities (SDG indicator 11.7.1)	11	15
Bioclimatic Ecosystem Resilience Index (BERI)	1	16
Biodiversity Barometer	15, 19	17
Biodiversity Engagement Indicator	15	18
Biodiversity Habitat Index	A, B, 1	19
Biodiversity Intactness Index	A	20
Change in the extent of water-related ecosystems over time (SDG indicator 6.6.1)	A, 10	21
Change in water use efficiency over time (SDG indicator 6.4.1).	14	22
Change on the extent of water related ecosystems (SDG Indicator 6.6.1)	A, 1	23
CO ₂ emission per unit of value added (SDG indicator 9.4.1)	14	24
Comprehensiveness of conservation of socioeconomically as well as culturally valuable species.	A	25
Continuous Global Mangrove Forest Cover	A, 1	26
Coverage by protected areas of important sites for mountain biodiversity (SDG indicator 15.4.1)	2	27
Coverage of other effective area-based conservation measures	A, 2	28
Coverage of protected areas in relation to marine areas (SDG indicator 14.5.1)	2	29

A. Proposed Global Indicators	B. Relevant Goals and Targets	Row Number
Cumulative human impacts on marine ecosystems	A, 1	30
Degree of application of a legal/regulatory/ policy/institutional framework which recognizes and protects access rights for small-scale fisheries (SDG indicator 14.B.1)	8	31
Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1)	4, 8	32
Degree of integrated water resources management (SDG indicator 6.5.1)	1	33
Dollar value of all resources made available to strengthen statistical capacity in developing countries (SDG indicator 17.19.1)	18	34
Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries (SDG indicator 17.9.1)	18	35
Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP (SDG indicators 8.4.2 and 12.2.2)	14, 15	36
Ecological Footprint	14, 15	37
Ecoregion Intactness Index	1	38
Estimated % of monetary and non- monetary benefits directed towards conservation and sustainable use of biodiversity	12	39
Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment (SDG indicators 4.7.1 and 12.8.1)	19	40
Forest area as a proportion of total land area (SDG indicator 15.1.1)	A, 1	41
Global coral reef extent	A	42
Global saltmarsh extent	A	43
Global seagrass extent	A, 1	44
Global Vegetation Health Products	A	45
Growth in number of records and species in the Living Planet Index database	19	46
Growth in Species Occurrence Records Accessible Through GBIF	19	47
Human Appropriation of Net Primary Production (HANPP)	14	48
Level of water stress: freshwater withdrawal as a proportion of available freshwater resources (SDG indicator 6.4.2)	14, 15	49
Live coral cover	A, 1	50
Living Planet Index and derivatives	A, 8	51
Material footprint, material footprint per capita, and material footprint per GDP (SDG indicators 8.4.1 and 12.2.1)	14, 15	52
Mountain Green Cover Index (SDG indicator 15.4.2)	1	53
MSC Certified Catch	8, 14	54
National recycling rate, tons of material recycled (SDG indicator 12.5.1)	15	55
Nitrogen Balances	6	56
Number of assessments on the IUCN Red List of threatened species	19	57
Number of certified forest areas under sustainable management with verified impacts on biodiversity conservation	2, B	58
Number of certified forest areas under sustainable management with verified impacts on carbon sequestration/storage	B	59
Number of certified forest areas under sustainable management with verified impacts on water quality	B	60
Number of checkpoint communiqués published in the ABS Clearing-House	C	61
Number of companies publishing sustainability reports (SDG indicator 12.6.1)	14, 19	62

A. Proposed Global Indicators	B. Relevant Goals and Targets	Row Number
Number of countries developing, adopting or implementing policy instruments aimed at supporting the shift to sustainable consumption and production (SDG indicator 12.1.1)	14, 15	63
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)	7	64
Number of countries that have (a) Assessed values of biodiversity, in accordance with the Convention, (b) Identified and reported funding needs, gaps and priorities (c) Developed national financial plans for biodiversity; (d) Been provided with the necessary funding and capacity building to undertake the above activities; (decision X/3)	18	65
Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits (SDG Indicator 15.6.1)	12	66
Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits (SDG Indicator 15.6.1)	12	67
Number of countries that require prior informed consent that have published information on ABS procedures in the ABS Clearing-House.	12	68
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.	12	69
Number of countries using ecosystem-based approaches to managing marine areas (SDG indicator 14.2.1	1	70
Number of countries with biodiversity-relevant charges and fees	17	71
Number of countries with biodiversity-relevant taxes	17	72
Number of countries with biodiversity-relevant tradable permit schemes	17	73
Number of countries with mechanisms in place to enhance policy coherence of sustainable development (SDG indicator 17.14)	13	74
Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1)	B, 10	75
Number of extinctions prevented by conservation action	A	76
Number of least developed countries and small island developing States with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications (SDG indicator 13.b.1)	7	77
Number of MSC Chain of Custody Certification holders by distribution country	14	78
Number of Parties with a nationally determined target for increasing the level of domestic resources, reported to the Convention	18	79
Number of plant and animal genetic resources for food and agriculture secured in either medium- or longterm conservation facilities (SDG indicator 2.5.1)	A, 8, 9	80
Number of species extinctions (birds and mammals).	A	81
Number of users that have provided information relevant to the utilization of genetic resources to designated checkpoints	C	82
Ocean Health Index	A, 1	83
Percentage of cropped landscapes with at least 10% natural land	1	84
Percentage of Parties that carry out scientifically sound risk assessments to support biosafety decision-making	16	85
Percentage of Parties that establish and implement risk management measures	16	86
Percentage of Parties that have the necessary biosafety legal and administrative measures in place	16	87
Percentage of Parties that have the necessary measures and means for detection and identification of products of biotechnology.	16	88

A. Proposed Global Indicators	B. Relevant Goals and Targets	Row Number
Percentage of Parties that implement their biosafety measures	16	89
Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol.	16	90
Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol.	16	91
Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol.	16	92
Percentage of Parties to the Nagoya – Kuala Lumpur Supplementary Protocol implementing the relevant provisions of the Supplementary Protocol.	16	93
Percentage of Parties with legal and technical measures for restoration and compensation.	16	94
Percentage of Parties with mechanisms to facilitate the sharing of and access to information on biosafety.	16	95
Percentage of threatened species that are improving in status.	3	96
Phosphorus balances	6	97
Primary forest deforestation	1	98
Progress towards sustainable forest management (SDG indicator 15.2.1)	9	99
Proportion of agricultural area under productive and sustainable agriculture (SDG indicator 2.4.1)	9	100
Proportion of bodies of water with good ambient water quality (SDG indicator 6.3.2)	B, 10	101
Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species (SDG indicator 15.8.1)	5	102
Proportion of countries with systems to track and make public allocations for gender equality and women’s empowerment (SDG indicator 5.c.1)	20	103
Proportion of fish stocks under sustainable management certification schemes	8	104
Proportion of fish stocks within biologically sustainable levels (SDG indicator 14.4.1)	4, 8	105
Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	2	106
Proportion of known species assessed through the IUCN Red List.	19	107
Proportion of land that is degraded over total land area (SDG indicator 15.3.1)	A, 1, 9	108
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)	10	109
Proportion of local breeds classified as being at risk of extinction	A, 9	110
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)	7	111
Proportion of population who believe decision making is inclusive and responsive, by sex, age, disability and population group (SDG indicator 16.7.2).	20	112
Proportion of seats held by women in (a) national parliaments and (b) local governments (SDG indicator 5.5.1)	20	113
Proportion of terrestrial, freshwater and marine ecological regions which are conserved by PAs or OECMs.	2	114
Proportion of total research budget allocated to research in the field of marine technology (SDG indicator 14.A.1)	19	115
Proportion of traded wildlife that was poached or illicitly trafficked (SDG indicators 15.7.1 and 15.c.1)	4	116
Proportion of transboundary basin area with an operational arrangement for water cooperation (SDG indicator 6.5.2)	1	117

A. Proposed Global Indicators	B. Relevant Goals and Targets	Row Number
Protected Area Connectedness Index (PARC-Connectedness).	2	118
Protected area coverage	A, 2	119
Protected Area Coverage of key biodiversity areas	A, 2	120
Protected Area Representativeness Index (PARC-Representativeness)	A, 2	121
Protected Areas Management Effectiveness	2	122
Protected Connected (Protconn).	1, 2	123
Ratio of land consumption rate to population growth rate (SDG indicator 11.3.1)	11	124
Red List Index and derivatives	A, B, 1, 3, 5, 8, 9	125
Red List Index for Ecosystems	A, 1	126
Species Habitat Index	A, B	127
Species Protection Index	A, 2	128
Species Status Information Index	19	129
Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries (SDG indicator 14.7.1)	8	130
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)	18	131
Total number of internationally recognized certificates of compliance published in the ABS Clearing-House	12	132
Total number of permits or their equivalent granted for access to genetic resources	12	133
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	12	134
Tree cover loss	A	135
Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (decision X/43)	20	136
Trends in invasive alien species vertebrate eradications.	5	137
Trends in land cover change (SDG indicator 15.3.1)	1	138
Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (decision X/43)	20	139
Trends in Loss of Reactive Nitrogen to the Environment.	6	140
Trends in mangrove extent	A, 1	141
Trends in Nitrogen Deposition.	6	142
Trends in policy responses, legislation and management plans to control and prevent spread of invasive alien species	5	143
Trends in potentially environmentally harmful elements of government support to agriculture (producer support estimate)	17	144
Trends in Protected area downgrading, downsizing and degazettement (PADDD)	2	145
Trends in the number and value of government fossil fuel support measures	17	146
Trends in the numbers of invasive alien species introduction events.	5	147
Trends in the practice of traditional occupations (decision X/43)	20	148
Trends of linguistic diversity and numbers of speakers of indigenous languages (B) (decision VII/30 and VIII/15)	19	149
Volume of production per labour unit by classes of farming/pastoral/ forestry enterprise size (SDG indicator 2.3.1)	8	150
WAZA bio-literacy survey (Biodiversity literacy in global zoo and aquarium visitors)	15, 19	151
Wetland Extent Trends Index	A, 1	152