REVISED NON-PAPER

PROPOSED MONITORING FRAMEWORK FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Co-chairs' suggestions for proposed headline, component and complementary indicators for the post-2020 global biodiversity framework

Appendix 2

Guidance for Reviewing the Non-Paper

1. The co-chairs of the contact group on the item "Proposed monitoring framework for the post-2020 global biodiversity framework," Mr. Andrew Stott (United Kingdom) and Mr. Alfred Oteng-Yeboah (Ghana), have prepared a revision of the non-paper issued on 17 December 2021, which is presented in the present document.

2. This document presents a reflection of the co-chairs' assessment of the views of Parties with regard to headline indicators, component indicators and complementary indicators. An addendum to this non-paper, which provides a compilation of potential additional or alternative indicators suggested by Parties during the meetings of the contact group, is also being made available as a separate non-paper.

3. The co-chairs note that goals and targets of the post-2020 global biodiversity framework are still being developed, and that Parties may wish to make further amendments and additions to proposed headline indicators, component indicators and complementary indicators.

4. This document takes into consideration views expressed by Parties at part I of the twenty-fourth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, part I of the third meeting of the Subsidiary Body on Implementation, and part I of the third meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework.

5. During discussions there were some suggestions to modify the names of existing indicators used in other processes. However, as these indicators have been agreed through those processes, it is not possible to change their names unless there is a proposal to create new indicators. For this reason, many of the proposed name changes are captured in the list of new indicators presented in the addendum, contained in the separate non-paper, and not in the table below.

6. The co-chairs have included a brief summary for each indicator which includes their assessment made during the session. In some cases, this was adjusted following further reflection after the session; sunch cases are marked with an *. Please note that the "comments" column will be deleted from the next iteration of this table that appears as Appendix 2 in the monitoring framework. Appendix 1 will also be aligned with this table.

7. For information, metadata for the proposed headline indicators in the previous non-paper on agenda item 3 (issued 17 December 2021) is provided in document CBD/SBSTTA/24/INF/38.[1] The document provides data provided by the proposed indicator custodians in the non-paper, including information on the proposed methodology, data availability at the national and global scales, and availability for the proposed indicators.

8. In reading the table below, please note the followings:

- All new texts are bold.
- Texts with divergent views are bracketed.
- No deletion was made.

[1] Individual metadata sheets for each headline indicator can also be downloaded at: https://www.post-2020indicators.org/

Goal/Milestone/Target[2]	Headline indicator	Comments	Component indicator	Complementary indicators
Goal A The integrity of all ecosystems is enhanced, with an increase of at least 15 per cent in the area, connectivity and integrity of natural ecosystems, supporting healthy and resilient populations of all species, the rate of extinctions has been reduced at least tenfold, and the risk of species extinctions across all taxonomic and functional groups, is halved, and genetic diversity of wild and domesticated species is safeguarded, with at least 90 per cent of genetic diversity within all species maintained. *Milestone A.1 Net gain in the area, connectivity and integrity of natural systems of at least 5 per cent.* *Milestone A.2 The increase in the extinction rate is halted or reversed, and the extinction risk is reduced by at least 10 per cent, with a decrease in the proportion of species that are threatened, and the abundance and distribution of populations*	A.0.1 Extent of [selected] natural and [**seminatural and]** modified [**sustainable]** ecosystems [**in all biomes of the IUCN ecosystem typology]** by type [**(e.g.** forest, **[desert]**, savannahs and grasslands, wetlands, **[lakes, rivers]**, **[alpine vegetation]**, mangroves, saltmarshes, coral reef, seagrass, macroalgae and intertidal habitats)]	Relevance: Green/yellow Nationally feasible: yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Relevant, not fully operational Many Parties supported this indicator with minor modifications. Some Parties noted the need for an additional indicator on connectivity and integrity. A number of alternative indicators were proposed. In particular, the Red List of Ecosystems (a.8) was proposed by several of Parties.	A.2.1 CMS connectivity indicator (CMS) A.3.1 Ecosystem Integrity Index A.4.1 Species status information index (GEOBON) A.4.2 Living Planet Index A.8.1 Proportion of populations maintained within species (GEOBON)	a.1. Forest area as a proportion of total land area (SDG indicator 15.1.1) a.2. Forest distribution a.3. Tree cover loss a.4. Grassland and savannah extent a.5. Mountain Green Cover Index a.6. Peatland extent and condition a.7. Permafrost thickness, depth and extent a.8. Red List of Ecosystems a.9. Continuous Global Mangrove Forest Cover a.10. Trends in mangrove forest fragmentation a.11. Change in the extent of water-related ecosystems over time (SDG indicator 6.6.1) a.12. Trends in mangrove extent a.13. Live coral cover a.14. Hard Coral cover and composition a.15. Global coral reef extent a.16. Global Seagrass Extent (Seagrass Cover and composition) a.17. Global saltmarsh extent a.18. Kelp canopy extent
	A.0.2 Species Habitat Index	Relevance: Red/yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Low relevance, not fully operational Some Parties expressed support for this indicator, many Parties felt that this indicator should not be included at the headline level and should be at the component level. The addition of the Living Planet Index was proposed by a		

[2] CBD/WG2020/3/3

Goal/Milestone/Target[2]	Headline indicator	Comments	Component indicator	Complementary indicators
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.*		number of Parties. A number of other indicators were suggested.		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 a.36. Wetland Extent Trends Index a.37. River Fragmentation Index
	A.0.3 Red list index **(SDG 15.5.1)**	Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Green Readiness: Green Summary: Relevant and ready to use. Most Parties supported the use of the indicator at the global level. However, some Parties noted differences in the implementation of this indicator at the national level.		
	A.0.4 The proportion of populations within **[umbrella]** species with a [genetically] effective population size > 500	Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Red Readiness: Yellow Summary: Relevant, not fully operational Many Parties supported the concept of this indicator; however, noted that it would require resources to operationalise it and that it would be difficult in the near term. A number of other indicators were suggested.		

Goal/Milestone/Target[2]	Headline indicator	Comments	Component indicator	Complementary indicators
				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[2]	Headline indicator	Comments	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.0.1 National environmental economic accounts of ecosystem services*		B.2.1 Nature's regulating contributions including climate regulation, disaster prevention and other (from the environmental economic accounts) B.3.1 Nature's material contributions including food, water and others (from the environmental economic accounts) B.4.1 Nature's non-material contributions including cultural (from the environmental economic accounts)	b.1. Expected loss of Phylogenetic Diversity (IPBES phylogenetic diversity indicator) b.2. Red List Index (pollinating species) b.3. Green status index (pollinators) b.4. Air quality index b.5. Air pollution emissions account b.6. Zoonotic disease in wildlife b.7. Climatic impact index b.8. Ocean acidification (SDG 14.3.1) b.9. Level of water stress: freshwater withdrawal as a proportion of available freshwater resources b.10. Proportion of bodies of water with good ambient water quality (SDG indicator 6.3.2) b.11. Eflow index b.12. Change in the quality of inland water ecosystems over time b.13. Change in the quality of coastal water ecosystems over time b.14. Level of erosion

Goal/Milestone/Target[2]	Headline indicator	Comments	Component indicator	Complementary indicators
				b.15. Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1) b.16. Intact wilderness b.17. Biofuel production b.18. Maximum fish catch potential b.19. Population involved in hunting and gathering b.20. Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale b.21. Forestry Production & Trade (Wood Fuel) b.22. Trends in the legal trade of medicinal plants b.23. Visitor management assessment b.24. Number of formal and non-formal education programmes transmitting spiritual and cultural values in the UNESCO World Network of Biosphere Reserves b.25. Number of mixed sites (having both natural and cultural Outstanding Universal Values), cultural landscapes (recognized as combined works of nature and people) and natural sites with cultural values including those

Goal/Milestone/Target[2]	Headline indicator	Comments	Component indicator	Complementary indicators
				supporting local and indigenous knowledge and practices inscribed on the UNESCO World Heritage List and UNESCO World Network of Biosphere Reserves b.26. Index of Linguistic Diversity - Trends of linguistic diversity and numbers of speakers of indigenous languages b.27. Index of development of the standard- setting framework for the protection and promotion of culture, cultural rights and cultural diversity b.28. Cultural vitality index b.29. UNESCO Culture 2030 (multiple indicators)
Goal C The benefits from the utilization of genetic resources are shared fairly and equitably, with a substantial increase in both monetary and non-monetary benefits shared, including for the conservation and sustainable use of biodiversity. *Milestone C.1 The share of monetary benefits received by providers, including holders of traditional knowledge, has increased.* *Milestone C.2 Non-monetary benefits, such as the participation of providers, including holders of*	C.0.1 Indicator on monetary benefits received tbc* C.0.2 Indicator on non-monetary benefits tbc*			c.1. Number of users that have provided information relevant to the utilization of genetic resources to designated checkpoints c.2. Total number of internationally recognized certificates published in the APB Clearing-House c.3. Number of checkpoint communiqués published in the ABS Clearing-House c.4. Number of internationally recognized certificates of compliance for non-commercial purposes

Goal/Milestone/Target[2]	Headline indicator	Comments	Component indicator	Complementary indicators
traditional knowledge, in research and development, has increased.				
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 deployed, progressively closing the financing gap up to at least US $700 billion per year by 2030. Milestone D.2 Adequate other means, including capacity-building and development, technical and scientific cooperation and technology transfer to implement the framework to 2030 are available and deployed. Milestone D.3 Adequate financial and other resources for the period 2030 to 2040 are planned or committed by 2030.*	D.0.1. Indicators on funding for implementation of the global biodiversity framework 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 (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
	D.0.2 Indicator on national biodiversity planning processes and means of implementation tbc*			

Goal/Milestone/Target[2]	Headline indicator	Comments	Component indicator	Complementary indicators
				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
Target 1. Ensure that all land and sea areas globally are under integrated biodiversity-inclusive spatial planning addressing land- and sea-use change, retaining existing intact and wilderness areas.	1.0.1 Indicator of the percentage of land and seas covered by [**landscape-level]** spatial [plans that integrate] [**integral]** biodiversity [**plans]** tbc*	Relevance: Green/yellow Nationally feasible: yellow Globally feasible with national disaggregation: Red Readiness: Yellow Summary: Relevant, not fully operational Many Parties supported having an indicator on spatial planning; however, noted that this indicator would need development. Some Parties suggested this indicator could be a component level indicator. Some Parties noted to the need to capture the issue of habitat loss and land/sea change at the headline level. Some alternative headline indicators were proposed.	1.2.1 Priority retention of intact / wilderness areas	t1.1. Number of countries using natural capital accounts in planning processes t1.2. Percentage of spatial plans utilising information on key biodiversity areas t1.3. Habitat patches located within marine protected areas or integrated coastal zone management (ICZM) t1.4. Other spatial management plans (not captured as ICZM or marine spatial planning in 14.2.1) t1.5. Number of countries using ocean accounts in planning processes t1.6. Proportion of transboundary basin area with an operational arrangement for water cooperation (SDG indicator 6.5.2) t1.7. Percent of total land area that is under cultivation
Target 2. Ensure that at least 20 per cent of degraded freshwater, marine and terrestrial ecosystems are	2.0.1 [Percentage][Area] of degraded [**and] [**or] converted ecosystems that	Relevance: Green Nationally feasible: Yellow/red Globally feasible with national disaggregation: Red/yellow	2.2.1 Maintenance and restoration of connectivity of natural ecosystems	t2.1. Habitat distributional range t2.2. Index of Species Rarity Sites, High Biodiversity Areas, Large

Goal/Milestone/Target[2]	Headline indicator	Comments	Component indicator	Complementary indicators
under restoration, ensuring connectivity among them and focusing on priority ecosystems.	are under [**ecological]** restoration	Readiness: Yellow/red **Summary: Relevant, not fully operational** Many Parties mentioned the need to capture restoration at the headline level. A few alternative indicators were proposed.		Mammal Landscapes, Intact Wilderness and Climate Stabilization Areas t2.3. Increase in secondary natural forest cover t2.4. Annual Tropical Primary Tree Cover Loss t2.5. Forest Landscape Integrity Index t2.6. Global Ecosystem Restoration Index t2.7. Cumulative human impacts on marine ecosystems. t2.8. Physical damage to seafloor habitats t2.9. Free flowing rivers t2.10. Percentage of cropped landscapes with at least 10 % natural land t2.11. Bioclimatic Ecosystem Resilience Index (BERI)

Target 3. Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	3.0.1 [Percentage] [Coverage] of protected areas and OECMS**, by** effectiveness**, [ecosystem type,] [KBA/EBSA status]**	Relevance: Green/yellow Nationally feasible: green/yellow Globally feasible with national disaggregation: green/yellow Readiness: green/yellow Summary: Relevant, mostly ready to use While Parties noted the importance of tracking protected areas, many Parties stressed the need to capture effectiveness, implementation, representativeness and other aspects of protected area coverage. A few additional indicators were proposed.	3.2.1 Protected area coverage of key biodiversity areas [**and/or ecologically or biologically significant areas**](SDG 14.5.1, 15.1.2 and 15.4.1) 3.3.1 Protected Area Management Effectiveness (PAME) (Protected Planet) 3.4.1 Species Protection Index (GEOBON)	t3.1. Protected area downgrading, downsizing and degazettement (PADDD) t3.2. Status of key biodiversity areas t3.3. Protected area coverage of key biodiversity areas t3.4. Protected area coverage of coral reefs t3.5. IUCN Green List of Protected and Conserved Areas t3.6. Number of hectares of UNESCO designated sites (natural and mixed World Heritage sites and Biosphere Reserves) t3.7. Proportion of terrestrial, freshwater and marine ecological regions which are conserved by protected areas or other effective area-based conservation measures t3.8. Species Protection Index t3.9. Protected Area Connectedness Index (PARC-Connectedness) t3.10. Ramsar Management Effectiveness Tracking Tool (R-METT) t3.11. Number of protected areas that have completed a site-level assessment of governance and equity (SAGE) t3.12. Number of certified forest areas under sustainable management with verified impacts on biodiversity conservation

				t3.13. Percentage of biosphere reserves that have a positive conservation outcome and effective management t3.14. Extent of indigenous peoples and local communities' lands hat have some form of recognition
Target 4. Ensure active management actions to enable the recovery and conservation of species and the genetic diversity of wild and domesticated species, including through ex situ conservation, and effectively manage human-wildlife interactions to avoid or reduce human-wildlife conflict.	4.0.1 Proportion of species populations that are affected by human wildlife conflict **[requiring intensive recovery due to human wildlife conflict]**	Relevance: Yellow Nationally feasible: Red Globally feasible with national disaggregation: Red Readiness: Red Summary: Medium relevant, not fully operational Many Parties expressed that the indicators under this target depended on the final wording of the target. Additionally, many Parties expressed that this indicator may not be feasible.	4.1.1 Green Status of Species Index (IUCN)	t4.1. Species threat abatement and restoration metric t4.2. IUCN Green Status of Species Index by sub-indicators t4.3. Changing status of evolutionary distinct and globally endangered species (EDGE Index) t4.4. Percentage of threatened species that are improving in status. t4.5. Number of CMS daughter agreements
	4.0.2 Number of plant [**and animal]** genetic resources [for food and agriculture] secured in medium or long-term conservation facilities **(SDG 2.5.1)**	Relevance: Yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Green/yellow Readiness: Green/yellow Summary: Medium relevant, mostly ready to use Many Parties expressed that this indicator would be more relevant with the inclusion of animal resources. This indicator is an existing SDG indicator. Some additional indicators were proposed by Parties for this target.		

Target 5. Ensure that the harvesting, trade and use of wild species is sustainable, legal, and safe for human health.	5.0.1 Proportion of [wildlife] **[wild species][wood and plant]** that is harvested and traded legally and sustainably	Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Green/yellow Summary: Relevant, not fully operational Many Parties felt this indicator could be operationalized even though it is not available yet. Some additional indicators were proposed.		t5.1. Sustainable watershed and inland fisheries index t5.2. Marine Stewardship Council Fish catch t5.3. Total catch of cetaceans under International Convention for the Regulation of Whaling t5.4. By catch of vulnerable and non-target species t5.5 Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1). t5.6. Proportion of legal and illegal wildlife trade consisting of species threatened with extinction t5.7. Illegal trade by CITES species classification t5.8. Number of countries incorporating trade in their national biodiversity policy t5.9. The conservation status of species listed in the CITES Appendices has stabilized or improved t5.10. Implementation of measures designed to minimize the impacts of fisheries and hunting on migratory species and their habitats
	5.0.2 Proportion of fish stocks within biologically sustainable levels **(SDG 14.4.1)**	Relevance: Green Nationally feasible: Green/yellow		

		Globally feasible with national disaggregation: Green/yellow Readiness: Green Summary: Relevant and ready to use Parties expressed that this indicator is relevant at the headline level. However, many Parties noted that a broader indicator capturing freshwater fish or other species would be relevant, most		
Target 6. Manage pathways for the introduction of invasive alien species, preventing, or reducing their rate of introduction and establishment by at least 50 per cent, and control or eradicate invasive alien species to eliminate or reduce their impacts, focusing on priority species and priority sites.	6.0.1 Rate of invasive alien species spread **[and rate of impact]**	Relevance: Yellow / Green if impact included* Nationally feasible: Yellow Globally feasible with national disaggregation: Green/yellow* Readiness: Yellow Summary: Relevant, mostly ready to use Some Parties note that this indicator should address the impact of invasive alien species and not only their spread. Alternative indicators were proposed by Parties.	6.3.1 Rate of invasive alien species impact (GEOBON)	t6.1. Number of invasive alien species in national lists as per the Global Register of Introduced and Invasive Species t6.2. Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species
Target 7. Reduce pollution from all sources to levels that are not harmful to biodiversity and ecosystem functions and human health, including by reducing nutrients lost to the environment by at least half, and pesticides by at least two	7.0.1 Index of coastal eutrophication potential (excess nitrogen and phosphate loading, exported from national boundaries) [**by waterbody][by basin] (SDG 14.1.1a)**	Relevance: Green/yellow Nationally feasible: Green/yellow Globally feasible with national disaggregation: Green/yellow Readiness: Green Summary: Medium relevant and mostly ready to use	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.

thirds and eliminating the discharge of plastic waste.		Some Parties felt that this indicator missed key aspects of eutrophication, including impacts on terrestrial ecosystems and proposed additional or alternative indicators. Other Parties felt that this indicator should be included at the headline level.	7.4.1 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)	
	7.0.2 Floating plastic debris density [by micro and macro plastics] **(SDG 14.1.1b)**	Relevance: Yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Medium relevant, not fully operational Some Parties felt that other indicators related to impacts or other aspects of pollution would be better suited for use at the headline level. Other Parties supported the use of this indicator.		
	7.0.3 [**Most hazardous]** Pesticide [use] **[load] [**per area of cropland]	Relevance: Red/yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Red Readiness: Yellow Summary: Less relevant, not fully operational While many Parties noted the need for either one indicator or a number of indicators to capture different types of pollution, many Parties noted that this indicator would not capture the impacts on biodiversity and that		

		alternative indicators were needed Some Parties suggested that perhaps an alternative indicator which captures all of target 7 could be identified.		
Target 8. Minimize the impact of climate change on biodiversity, contribute to mitigation and adaptation through ecosystem-based approaches, contributing at least 10 $GtCO_2e$ per year to global mitigation efforts, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity.	8.0.1 National [**net]** green-house [gas inventories] from land use and land use change **[by land use and land use change category, subcategory, natural/modified]**	Relevance: High/low Nationally feasible: Green/yellow Globally feasible with national disaggregation: Green/yellow Readiness: Green Summary: Relevance cannot be assessed until the target is agreed. Many Parties noted that the indicator on this target will need to align with the final wording of the target. Some Parties were supportive of this indicator. However, some Parties did not believe that it was relevant to biodiversity and/or was outside the scope of the Convention. Several alternative indicators were suggested	8.1.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications that reflect biodiversity (based on information from UNFCCC and SDG 13.2.1) 8.2.1. Total climate regulation services provided by ecosystems by ecosystem type (System of Environmental Economic Accounts) 8.3.1 Number of countries that adopt and implement national disaster risk reduction strategies in line	t8.1. Above-ground biomass stock in forest (tonnes/ha) t8.2. Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 (SDG indicator 13.1.2) t8.3. Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies (SDG indicator 13.1.3) t8.4. Number of least developed countries and small island developing States with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications (SDG indicator 13.b.1)

			with the Sendai Framework for Disaster Risk Reduction 2015–2030 which include biodiversity (based on SDG 13.2.1)	
Target 9. Ensure benefits, including nutrition, food security, medicines, and livelihoods for people especially for the most vulnerable through sustainable management of wild terrestrial, freshwater and marine species and protecting customary sustainable use by indigenous peoples and local communities.	9.0.1 National environmental-economic accounts of benefits from the use of wild species	Relevance: Yellow Nationally feasible: Yellow/Red* Globally feasible with national disaggregation: Yellow Readiness: Yellow/Red Summary: Medium relevant, not fully operational A number of Parties noted that this indicator would be difficult to operationalize at the national level and that an alternative indicator may be useful. Several alternative indicators were suggested	9.1.1 Number of people using wild resources for energy, food or culture (including firewood collection, hunting and fishing, gathering, medicinal use, craft making, etc.) 9.1.2 Percentage of the population in traditional employment (ILO) 9.1.3 Spawning stock biomass (related to commercially exploited species)	t9.1. Proportion of fish stocks within biologically sustainable levels (SDG indicator 14.4.1) t9.2. Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing (SDG indicator 14.6.1) t9.3. Spawning stock biomass (related to commercially exploited species) t9.4. Number of plant and animal genetic resources for food and agriculture secured in medium- or long-term conservation facilities (SDG indicator 2.5.1) t9.5. Red List Index (species used for food and medicine) t9.6. Volume of production per labour unit by classes of farming/pastoral/ forestry enterprise size (SDG indicator 2.3.1)
Target 10. Ensure all areas under agriculture, aquaculture and forestry are managed sustainably, in particular through the conservation and	10.0.1 Proportion of agricultural area under productive and sustainable agriculture **(add SDG 2.4.1)**	Relevance: Green Nationally feasible: Green Globally feasible with national disaggregation: Green/yellow* Readiness: Green/yellow	10.1.1. Average income of small-scale food producers, by sex and indigenous	t10.1. Changes in soil organic carbon stocks t10.2. Red List Index (wild relatives of domesticated animals)

sustainable use of biodiversity, increasing the productivity and resilience of these production systems.		**Summary: Relevant, near ready to use** The use of this SDG indicator as a headline level was supported by most Parties.	status (SDG indicator 2.3.2) 10.3.1 Area of forest under sustainable management: total forest management certification by Forest Stewardship Council and Programme	t10.3. Red List Index (pollinating species) t10.4. Proportion of local breeds classified as being at risk of extinction t10.5. Progress towards sustainable forest management (SDG indicator 15.2.1)
	10.0.2 Progress towards sustainable forest management (Proportion of forest area under a long-term forest management plan) **(add SDG 15.2.1(4))**	Relevance: Green Nationally feasible: Green Globally feasible with national disaggregation: Green/yellow* Readiness: Green/yellow Summary: Relevant, near ready to use The use of this SDG indicator as a headline level was supported by most Parties. Some Parties suggested some further disaggregation of elements.		
Target 11. Maintain and enhance nature's contributions to regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people.	11.0.1 National environmental-economic accounts of regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people, [from ecosystems]**[to maintain or increase relevant ecosystem services]**	Relevance: Yellow Nationally feasible: Yellow/Red* Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Medium relevant, not fully operational A number of Parties noted that this indicator would be difficult to operationalize at the national level and that an alternative indicator may be useful.	11.1.1 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (SDG 11.6.2) 11.1.2 Mortality rate attributed to household and ambient air pollution (SDG indicator 3.9.1) 11.2.1 Proportion of bodies of water with good ambient water quality (SDG 6.3.2) 11.2.2 Mortality rate attributed to unsafe	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)

			water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) (SDG indicator 3.9.2) 11.2.3 Level of water stress (SDG 6.4.2) 11.2.1. Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1)	
Target 12. Increase the area of, access to, and benefits from green and blue spaces, for human health and well-being in urban areas and other densely populated areas.	12.0.1 Average share of the built-up area of cities that is green/blue space for public use for all (**SDG 11.7.1)**	Relevance: Yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Green/yellow* Readiness: Yellow Summary: Medium relevant, not fully operational Many Parties expressed that this indicator may not be the most relevant for the target. However, other Parties noted its use in the SDG process. Some supported the indicator at the component level. A number of Parties suggested the Cities Biodiversity Index.	12.2.1 National environmental-economic accounts of recreation and cultural services	

Target 13. Implement measures at global level and in all countries to facilitate access to genetic resources and to ensure the fair and equitable sharing of benefits arising from the use of genetic resources, and as relevant, of associated traditional knowledge, including through mutually agreed terms and prior and informed consent.	13.0.1 [**Percentage of countries that have]** [Indicator[s] of] operational legislative, administrative or policy frameworks which **[facilitate access to and]** ensure fair and equitable sharing of benefits[, including those based on PIC and MAT] [**shared in the ABS Clearing-House]** tbc*	Relevance: Green* Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Green* Summary: Relevant, not fully operational While this indicator would need to be developed, most Parties supported having an indicator on this topic noting that the final wording and methodology would need to be developed. Parties suggested a number of alternative indicators	13.1.1. Number of permits or their equivalents for genetic resources (including those related to traditional knowledge) by type of permit	t13.1. Total number of transfers of crop material from the Multilateral System of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) received in a country t13.2. Total number of permits, or their equivalent, granted for access to genetic resources t13.3. Total number of internationally recognized certificates of compliance published in the ABS Clearing-House t13.4. Number of countries that require prior informed consent that have published legislative, administrative or policy measures on access and benefit-sharing in the ABS Clearing-House t13.5. Number of countries that require prior informed consent that have published information on ABS procedures in the ABS Clearing-House t13.6. Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits (SDG Indicator 15.6.1) t13.7. Estimated % of monetary and non- monetary benefits directed towards conservation and sustainable use of biodiversity

Target 14. Fully integrate biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies, accounts, and assessments of environmental impacts at all levels of government and across all sectors of the economy, ensuring that all activities and financial flows are aligned with biodiversity values.	14.0.1 Extent to which national targets [**have been adopted]** for integrating biodiversity values [**as cornerstones for implementation]** into policies, regulations, planning, development processes, poverty reduction strategies [and accounts] **[are established]** at all levels, ensuring that biodiversity values are mainstreamed across all sectors and integrated into assessments of environmental impacts	Relevance: Green/yellow* Nationally feasible: Green Globally feasible with national disaggregation: Yellow* Readiness: Green Summary: Relevant not fully operational Some Parties expressed support and noted its link to the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. Some Parties proposed that the indicator would be acceptable with some modifications, but some Parties did not support the use of the indicator.	14.3.1 Existing legislation for environmental impact assessment Tbc (will align with the Task Force for Nature-related Financial Disclosures)	t14.1. Human Appropriation of Net Primary Production (HANPP) t14.2. Number of MSC Chain of Custody Certification holders by distribution country
	14.0.2 **[Number of countries with]** Implementation of the System of Environmental-Economic Accounting **[(SDG 15.9.1b)]**	Relevance: Yellow* Nationally feasible: Green Globally feasible with national disaggregation: Yellow* Readiness: Green Summary: Medium, not fully operational Some Parties noted that this indicator could be moved to the component level or revised in order to be more relevant. Other Parties supported using SDG indicator 15.9.1b.		
Target 15. All businesses (public and private, large, medium and small) assess and	15.0.1 **[Number of companies assessing and reporting on**	Relevance: Green Nationally feasible: Yellow	Tbc (will align with the Task Force for	t15.1. CO_2 emission per unit of value added (SDG indicator 9.4.1)

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.	**their][Quantified volumes of]** Dependencies [and] impacts[**, risks and opportunities]** of businesses on biodiversity [**and related human rights]**	Globally feasible with national disaggregation: Yellow Readiness: Red Summary: Relevant, not fully operational Most Parties felt that an indicator on dependencies and impacts was relevant; however, such an indicator would need to be further defined and elaborated. Parties suggested a number of adjustments to the indicator and/or alternative indicators	Nature-related Financial Disclosures) 15.4.1 Ecological footprint 15.4.2 Recycling rate	t15.2. Change in water-use efficiency over time (SDG indicator 6.4.1)
Target 16. Ensure that people are encouraged and enabled to make responsible choices and have access to relevant information and alternatives, taking into account cultural preferences, to reduce by at least half the waste and, where relevant the overconsumption, of food and other materials.	16.0.2 Material footprint per capita **(SDG 8.4.1/12.2.1)**	Relevance: Yellow Nationally feasible: Green/yellow Globally feasible with national disaggregation: Green/yellow Readiness: Green Summary: Mostly relevant and ready to use While this indicator is available through the SDG process, some Parties noted that a more relevant indicator could be selected. A number of Parties suggested the ecological footprint or other indicators.	*(15.4.2 Recycling rate)*	
	16.0.1 Food waste index **(SDG 12.3.1b)**	Relevance: Yellow Nationally feasible: Yellow		

		Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Mostly relevant, not fully operational Some Parties suggested that additional indicators on waste or other aspects of the target should be captured and that this could be a component indicator. Other Parties supported the use of this indicator at the headline level. A number of alternative indicators were proposed for this target.		
Target 17. Establish, strengthen capacity for, and implement measures in all countries to prevent, manage or control potential adverse impacts of biotechnology on biodiversity and human health, reducing the risk of these impacts.	17.0.1 Indicator of [**capacity and]** measures in place to [prevent] manage **[or]** [and control] potential [adverse] impacts of **[LMOs and other products from the sustainable use of biodiversity]** [**LMOS resulting from modern]** biotechnology on biodiversity taking into account [**conservation] [**c**ultural and social economic considerations and]** human health [**and environment safety]** tbc*	Relevance: Green/yellow Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Relevant, not fully operational While this indicator would need to be developed, most Parties supported having an indicator on this topic noting that the final wording and methodology would need to be developed. Many Parties suggested changes to the wording of this indicator.	17.1.1 Number of countries that carry out scientifically sound risk assessments to support biosafety decision-making 17.1.2 Number of countries that establish and implement risk management measures 1.7.1.3 Percentage of countries with mechanisms to facilitate the sharing of and access to information on potential adverse impacts of	t17.1. Number of countries that have the necessary biosafety legal and administrative measures in place t17.2. Number of countries that implement their biosafety measures t17.3. Number of countries that have the necessary measures and means for detection and identification of products of biotechnology t17.4. Number of countries that carry out scientifically sound risk assessments to support biosafety decision-making t17.5. Number of countries that establish and implement risk management measures

			biotechnology on biodiversity and human health 17.1.4 Percentage of counties with systems in place for restoration and compensation of damage to conservation and sustainable use of biological diversity	t17.6. Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol t17.7. Number of countries with legal and technical measures for restoration and compensation t17.8. Percentage of Parties to the Nagoya – Kuala Lumpur Supplementary Protocol implementing the relevant provisions of the Supplementary Protocol
Target 18. Redirect, repurpose, reform or eliminate incentives harmful for biodiversity, in a just and equitable way, reducing them by at least US$ 500 billion per year, including all of the most harmful subsidies, and ensure that incentives, including public and private economic and regulatory incentives, are either positive or neutral for biodiversity.	18.0.1 **[Percentage reduction in]** [Value of] subsidies and other incentives harmful to biodiversity, that are [redirected, repurposed or]**[consistent with WTO rules]** [or] eliminated [**as a proportion of total subsidies]**	Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Relevant, not fully operational Many Parties noted the need for an indicator on both subsidies and positive incentives. Many Parties suggested the use of the indicator 18.1.1 The OECD noted that the correct wording of this indicator and this is reflected. A number of other indicators were suggested.	**18.1.1 [**Positive incentives] **[Economic incentives in place to promote biodiversity conservation and sustainable use]]** ~~(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) t18.5. Trends in the number and value of government fossil fuel support measures t18.6. Amount of fossil-fuel subsidies per unit of GDP (production and consumption) (SDG indicator 12.c.1)

Target 19. Increase financial resources from all sources to at least US$ 200 billion per year, including new, additional and effective financial resources, increasing by at least US$ 10 billion per year international financial flows to developing countries, leveraging private finance, and increasing domestic resource mobilization, taking into account national biodiversity finance planning, and strengthen capacity-building and technology transfer and scientific cooperation, to meet the needs for implementation, commensurate with the ambition of the goals and targets of the framework.	19.0.1 Official development assistance for biodiversity **(SDG 15.a.1)**	Relevance: Green Nationally feasible: Green Globally feasible with national disaggregation: Green Readiness: Green Summary: Relevant and ready to use This indicator was supported by most Parties. However, a number of Parties noted the need to capture domestic and international public and private expenditure, either as a single indicator disaggregated by domestic/international and public/private or as four indicators. Some alternative indicators were proposed.		t19.1. Amount of funding provided through the Global Environment Facility and allocated to the biodiversity focal area (decision X/3) t19.2. Amount and composition of biodiversity-related finance reported to the OECD Creditor reporting system t19.3. Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries t19.4. Dollar value of all resources made available to strengthen statistical capacity in developing countries (SDG indicator 17.19.1) t19.5. Amount of biodiversity-related philanthropic funding t19.6. Proportion of total research budget allocated to research in the field of marine technology t19.7. Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies (SDG indicator 17.7.1)
	19.0.2 Public **[funding]** **[**expenditure] and private **[funding]** [expenditure] on conservation and sustainable use of biodiversity and ecosystems [**as well as development and access to innovation, technology transfer and research on innovation]**	Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow/Red Readiness: Yellow Summary: Relevant, not fully operational While Parties noted that this indicator is less feasible, especially for private funding, most Parties expressed support for capturing these elements of funding.		
Target 20. Ensure that relevant knowledge, including the traditional knowledge,	20.0.1 Indicator on biodiversity information and monitoring, including	Relevance: Green Nationally feasible: Yellow		t20.1. Growth in number of records and species in the Living Planet Index database

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.	traditional knowledge [**with FPIC][and scientific knowledge]**, for management tbc*	Globally feasible with national disaggregation: Yellow Readiness: Green Summary: Relevant, not fully operational While this indicator would need to be developed, most Parties supported having such an indicator on information and monitoring, including on traditional knowledge. Some additional indicators were proposed.		t20.2. Growth in marine species occurrence records accessible through OBIS* t20.3. Proportion of known species assessed through the IUCN Red List. t20.4. Number of assessments on the IUCN Red List of threatened species t20.5. World Association of Zoos and Aquariums (WAZA) bio-literacy survey (Biodiversity literacy in global zoo and aquarium visitors)

Target 21. Ensure equitable and effective participation in decision-making related to biodiversity by indigenous peoples and local communities, and respect their rights over lands, territories and resources, as well as by women and girls, and youth.	21.0.1 [**Mechanisms for the full, equitable participation of]** [Indicator on [the degree to which]] indigenous peoples and local communities [**respecting all their rights in particular of land, waters and resources]**, women and girls **[in all their diversity]** as well as youth **[and human rights defenders]** participate**[ion]** in decision-making related to biodiversity tbc	Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Relevant, not fully operational Parties noted that this indicator would need to be defined and proposed a number of changes to the indicator wording. Some alternative indicators were proposed.	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)	t21.1. Percentage of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group (SDG indicator 16.7.2). t21.2. Percentage of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups t21.3. Proportion of seats held by women in (a) national parliaments and (b) local governments (SDG indicator 5.5.1) t21.4. Number of countries with systems to track and make public allocations for gender equality and women's empowerment (SDG indicator 5.c.1) t21.5. 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

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 use change and]** Land tenure [in the traditional territories] of indigenous peoples and local communities **[by sex and type of tenure]**	Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Yellow Summary: Relevant, not fully operational Many Parties suggested the use of land use and land tenure indicators for target 21 and other targets across the framework. Noting that indicator would require further work to be fully operational.	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)	t21.1. Percentage of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group (SDG indicator 16.7.2). t21.2. Percentage of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups t21.3. Proportion of seats held by women in (a) national parliaments and (b) local governments (SDG indicator 5.5.1) t21.4. Number of countries with systems to track and make public allocations for gender equality and women's empowerment (SDG indicator 5.c.1) t21.5. 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