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CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY

Fifteenth meeting – Part II

Montreal, Canada, 7-19 December 2022

Agenda item 9B

**DECISION ADOPTED BY THE CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY**

**15/5. Monitoring framework for the Kunming-Montreal Global Biodiversity Framework**

*The Conference of the Parties*

1. *Adopts* the monitoring framework for the Kunming-Montreal Global Biodiversity Framework contained in annex I of the present decision;

2. *Decides* to use the period from 2011–2020, where data is available, as the reference period, unless otherwise indicated, for reporting and monitoring progress in the implementation of the Kunming‑Montreal Global Biodiversity Framework, while noting that baselines, conditions and periods used to express desirable states or levels of ambition in goals and targets should, where relevant, take into account historical trends, current status, future scenarios of biodiversity and available information on the natural state;

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

4. *Notes* the value of aligning national monitoring with the System of Environmental-Economic Accounting statistical standard in order to mainstream biodiversity in national statistical systems and to strengthen national monitoring systems and reporting as appropriate and according to their national priorities and circumstances;

5*. Encourages* Parties and invitesother Governments, the Global Environment Facility, the Biodiversity Indicator Partnership, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and other relevant organizations to support national, regional and global biodiversity monitoring systems, recognizing the need for enhanced international cooperation and capacity-building especially for developing countries;

6. *Invites* Parties and relevant organizations to support community-based monitoring and information systems and citizen science and their contributions to the implementation of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework;

7*. Invites* the Statistical Commission, the Group on Earth Observations Biodiversity Observation Network, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the Biodiversity Indicators Partnership and other relevant organizations to support the operationalization of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework;

8. *Decides* to establish an ad hoc technical expert group, with a time-bound mandate until the sixteenth meeting of the Conference of the Parties, to advise on the further operationalization of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework in accordance with the terms of reference contained in annex II to the present decision;

9. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to review the outcomes of the Ad Hoc Technical Expert Group on Indicators established pursuant to paragraph 8 above, to complete the scientific and technical review of the monitoring framework and to report its findings for subsequent consideration by the Subsidiary Body on Implementation and by the Conference of the Parties at its sixteenth meeting;

10. *Decides* to consider the requirements for further work to fully implement and review the effectiveness of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework at its sixteenth meeting;

11. *Requests* the Executive Secretary, in collaboration with the Ad Hoc Technical Expert Group on Indicators, and subject to the availability of resources, to convene moderated online discussions on the monitoring framework;

12. *Invites* the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions to continue the development and operationalization of indicators related to traditional knowledge and indigenous peoples and local communities, and to report on this work to the Conference of the Parties;

13. *Request* the Secretariat to make information available on the progress and outcomes of this work to the Ad Hoc Technical Expert Group on Indicators;

14. *Requests* the Executive Secretary, subject to the availability of resources and in collaboration with relevant partners:

* 1. To facilitate the development of guidance on the development of regional and national monitoring systems and on the implementation of the monitoring framework, including on capacity-building and development to support its implementation, taking into account the special needs, circumstances and priorities of developing countries, including the least developed countries, small island developing States, and countries with economies in transition, also taking into consideration the special situation of developing countries, including those that are most environmentally vulnerable, such as those with arid and semi-arid zones, coastal and mountainous area, in compiling and using the headline indicators, and component and complementary indicators when relevant, including in their national reports, national biodiversity strategies and action plans and other national planning processes;
  2. To facilitate the use of relevant tools, including the Data Reporting Tool (DaRT), to facilitate national reporting and the sharing of information between multilateral environment agreements;

15. *Invites* the Global Partnership on Plant Conservation, with the support of the Secretariat and subject to the availability of resources, to prepare a set of complementary actions related to plant conservation to support the implementation of the Kunming-Montreal Global Biodiversity Framework and other relevant decisions adopted at the fifteenth meeting of the Conference of the Parties, aligned with the Kunming-Montreal Global Biodiversity Framework and also based on previous experiences with the implementation of the Global Strategy for Plant Conservation as described in the fifth edition of the *Global Biodiversity Outlook[[1]](#footnote-2)* and the 2020 Plant Conservation Report,[[2]](#footnote-3) for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice.

*Annex I*

MONITORING FRAMEWORK FOR THE Kunming-Montreal GLOBAL BIODIVERSITY FRAMEWORK

1. The monitoring framework is composed of the following groups of indicators for monitoring the implementation of the Kunming-Montreal Global Biodiversity Framework:
   1. Headline indicators (contained in table 1): a minimum set of high-level indicators, which capture the overall scope of the goals and targets of the Kunming-Montreal Global Biodiversity Framework to be used for planning and tracking progress as set out in decision 15/6. They are nationally, regionally and globally relevant indicators validated by Parties. These indicators can also be used for communication purposes;
   2. Global level indicators collated from binary yes/no responses in national reports. They are global indicators based on responses to yes/no questions to be included in the national reporting template. They will provide a count of the number of countries having undertaken specified activities;[[3]](#footnote-4)
   3. Component indicators (contained in table 2): a list of optional indicators that, together with the headline indicators, cover components of the goals and targets of the Kunming-Montreal Global Biodiversity Framework which may apply at the global, regional, national and subnational levels;
   4. Complementary indicators (contained in table 2): a list of optional indicators for thematic or in-depth analysis of each goal and target which may be applicable at global, regional, national, and subnational levels;
   5. The monitoring framework may be supplemented by additional national and subnational indicators.
2. The indicators in the monitoring framework for the Kunming-Montreal Global Biodiversity Framework meet, or will be able to meet by 2025, the following criteria:
   1. The data and metadata related to the indicator are publicly available;
   2. The methodology underpinning the indicator is either published in a peer-reviewed academic journal or has gone through a scientific peer-review process and has been validated for national use;
   3. The data sources and indicators are compiled and regularly updated with a time lag of less than five years between updates, if possible;
   4. There is an existing mechanism for maintaining the indicator methodology and/or data generation, including, for example, by a member of the Biodiversity Indicators Partnership, an intergovernmental organization or a well-established scientific or research institution, providing nationally applicable guidance on the use of the indicator;
   5. Indicators are able to detect trends relevant to the components of the goals and targets of the Kunming-Montreal Global Biodiversity Framework;
   6. When possible, indicators are aligned with existing intergovernmental processes under the Statistical Commission, such as the Sustainable Development Goals, the Framework for the Development of Environment Statistics or the System of Environmental-Economic Accounting or utilize the existing work on essential biodiversity variables under the Group on Earth Observations Biodiversity Observation Network.
3. Headline indicators use methodologies agreed by Parties and are calculated at a national level based on national data from national monitoring networks and national sources, recognizing that in some cases headline indicators may need to draw on global datasets. If national indicators are not available, then the use of global indicators at a national level must be validated through appropriate national mechanisms. Headline indicators allow for consistent, standardized and scalable tracking of global goals and targets.
4. To facilitate the compilation and use of these headline, component and complementary indicators at the national level, enabled by effective national biodiversity monitoring systems and other information systems, capacity‑building and development activities, technology and other support will be required. The Secretariat, together with organizations identified in the indicator metadata sheets as data providers, are invited to provide guidelines and information for the design or improvement and implementation of national monitoring systems to support the collection of data and the calculation of headline indicators. In this way, Parties will be able to effectively use the headline indicators, as well as component and complementary indicators, supported by adequate means of implementation, including capacity-building and development and technical and scientific cooperation to fill monitoring gaps, especially for developing countries.
5. In order to maximize uptake and minimize the reporting burden, the list of headline indicators comprises a small number of indicators which are intended to capture the overall scope of a goal or target in the Kunming-Montreal Global Biodiversity Framework. The headline indicators may not capture all components of a goal or a target but for analytical purposes can be complemented, as appropriate, with the component and complementary indicators.

**Table 1. Headline indicators for the Kunming-Montreal** **Global Biodiversity Framework**

| **A. Goal/ Target[[4]](#footnote-5)** | **Headline indicators[[5]](#footnote-6)** |
| --- | --- |
| A | A.1 Red List of Ecosystems  A.2 Extent of natural ecosystems  A.3 Red List Index  A.4 The proportion of populations within species with an effective population size > 500 |
| B**b** | B.1 Services provided by ecosystems\* |
| C**b** | C.1 Indicator on monetary benefits received\*  C.2 Indicator on non-monetary benefits\* |
| D | D.1 International public funding, including official development assistance (ODA) for conservation and sustainable use of biodiversity and ecosystems  D.2 Domestic public funding on conservation and sustainable use of biodiversity and ecosystems  D.3 Private funding (domestic and international) on conservation and sustainable use of biodiversity and ecosystems\* |
| 1**b** | A.1 Red List of Ecosystems  A.2 Extent of natural ecosystems  1.1 Percentage of land and sea area covered by biodiversity-inclusive spatial plans\* |
| 2 | 2.2 Area under restoration\* |
| 3 | 3.1 Coverage of protected areas and other effective area-based conservation measures |
| 4 | A.3 Red list Index  A.4 The proportion of populations within species with an effective population size > 500 |
| 5 | 5.1 Proportion of fish stocks within biologically sustainable levels |
| 6**b** | 6.1 Rate of invasive alien species establishment |
| 7 | 7.1 Index of coastal eutrophication potential  7.2 Pesticide environment concentration\* |
| 8**b** | - |
| 9**b** | 9.1 Benefits from the sustainable use of wild species\*  9.2 Percentage of the population in traditional occupations\* |
| 10 | 10.1 Proportion of agricultural area under productive and sustainable agriculture  10.2 Progress towards sustainable forest management |
| 11 | B.1 Services provided by ecosystems\* |
| 12**b** | 12.1 Average share of the built-up area of cities that is green/blue space for public use for all |
| 13**b** | C.1 Indicator on monetary benefits received\*  C.2 Indicator on non-monetary benefits\* |
| 14**b** | *-* |
| 15**b** | 15.1 Number of companies reporting on disclosures of risks, dependencies and impacts on biodiversity\* |
| 16**b** | - |
| 17**b** | *-* |
| 18 | 18.1 Positive incentives in place to promote biodiversity conservation and sustainable use  18.2 Value of subsidies and other incentives harmful to biodiversity that have been eliminated, phased out or reformed |
| 19 | D.1 International public funding, including official development assistance (ODA) for conservation and sustainable use of biodiversity and ecosystems  D.2 Domestic public funding on conservation and sustainable use of biodiversity and ecosystems  D.3 Private funding (domestic and international) on conservation and sustainable use of biodiversity and ecosystems\* |
| 20 | - |
| 21 | 21.1 Indicator on biodiversity information for monitoring the Kunming-Montreal Global Biodiversity Framework |
| 22b | - |
| 23b | - |

**Table 2. Proposed indicators for the Kunming-Montreal** **Global Biodiversity Framework**

| **Goal/ Target** | **Headline indicator** | **Component indicator** | **Complementary indicator** |
| --- | --- | --- | --- |
| A | A.1 Red List of Ecosystems  A.2 Extent of natural ecosystems  A.3 Red List Index  A.4 The proportion of populations within species with an effective population size > 500 | Ecosystem Intactness Index  Ecosystem Integrity Index  Species Habitat Index  Biodiversity Habitat Index  Protected Connected (Protconn) index  Parc connectedness  EDGE  Living Planet Index  Change in the extent of water-related ecosystems over time | Forest area as a proportion of total land area  Forest distribution  Tree cover loss  Grassland and savannah extent  Mountain Green Cover Index  Peatland extent and condition  Permafrost thickness, depth and extent  Continuous global mangrove forest cover  Trends in mangrove forest fragmentation  Trends in mangrove extent  Live coral cover  Hard coral cover and composition  Global coral reef extent  Global seagrass extent (Seagrass Cover and composition)  Global saltmarsh extent  Kelp canopy extent  Macroalgal canopy cover and composition  Cover of key benthic groups  Fleshy algae cover  Wetland Extent Trends Index  Change in the extent of inland water ecosystems over time  Forest Fragmentation Index  Forest Landscape Integrity Index  Biomass of selected natural ecosystems  Biodiversity Habitat Index  Global Vegetation Health Products  Bioclimatic Ecosystem Resilience Index (BERI)  Relative magnitude of fragmentation (RMF)  Ecosystem Intactness Index  Biodiversity Intactness Index  Ocean Health Index  Extent of physical damage indicator to predominant seafloor habitats physical damage  Wetland Extent Trends Index  River Fragmentation Index  Dendritic Connectivity Index  Percentage of threatened species that are improving in status according to the Red List  Number of threatened species by species group  Wild bird index  Mean Species Abundance (MSA)  Species Protection Index  Changes in plankton biomass and abundance  Fish abundance and biomass  Genetic scorecard for wild species  Species richness/Changes in local terrestrial diversity (PREDICTS)  Marine species richness  Comprehensiveness of conservation of socioeconomically as well as culturally valuable species  Number of plant and animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities  Proportion of local breeds classified as being at risk of extinction  Red List Index (wild relatives of domesticated animals)  CMS Connectivity Indicator  Species Status Index  Intact Wilderness  Expected Loss of Phylogenetic diversity  Proportion of populations maintained within species  Free flowing rivers |
| B**b** | B.1 Services provided by ecosystems\* | Red List Index (for utilized species)  Living Planet Index (for used species) | Levels of poverty in biodiversity dependent communities  Ecological footprint  Number of certified forest areas under sustainable management with verified impacts on biodiversity conservation  Expected loss of phylogenetic diversity  Red List Index (pollinating species)  Green status index (pollinators)  Air quality index  Air pollution emissions account  Zoonotic disease in wildlife  Climatic impact index  Ocean acidification  Level of water stress: freshwater withdrawal as a proportion of available freshwater resources  Proportion of bodies of water with good ambient water quality  Eflow index  Change in the quality of inland water ecosystems over time  Change in the quality of coastal water ecosystems over time  Level of erosion  Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population  Intact wilderness  Biofuel production  Maximum fish catch potential  Population involved in hunting and gathering  Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale  Forestry Production & Trade (Wood Fuel)  Trends in the legal trade of medicinal plants  Visitor management assessment  Number of formal and nonformal education programmes transmitting spiritual and cultural values in the UNESCO World Network of Biosphere Reserves  Number of mixed sites (having both natural and cultural Outstanding Universal Values), cultural landscapes (recognized as combined works of nature and people) and natural sites with cultural values including those supporting local and indigenous knowledge and practices inscribed on the UNESCO World Heritage List and UNESCO World Network of Biosphere Reserves  Index of Linguistic Diversity - Trends of Bilinguistic diversity and numbers of speakers of indigenous languages  Index of development of the standard-setting framework for the protection and promotion of culture, cultural rights and cultural diversity  Cultural vitality index  UNESCO Culture 2030 (multiple indicators)  Processes and tools to monitor the implementation of a right to a healthy environment (e.g. included in NBSAPs and reported in national reports  Red List Index (for internationally traded species) |
| C**b** | C.1 Indicator on monetary benefits received\*  C.2 Indicator on non-monetary benefits\* |  | Number of users that have provided information relevant to the utilization of genetic resources to designated checkpoints  Total number of internationally recognized certificates published in the ABS Clearing-House  Number of checkpoint communiqués published in the ABS Clearing-House  Number of internationally recognized certificates of compliance for non-commercial purposes  Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting |
| D | D.1 International public funding, including official development assistance (ODA) for conservation and sustainable use of biodiversity and ecosystems  D.2 Domestic public funding on conservation and sustainable use of biodiversity and ecosystems  D.3 Private funding (domestic and international) on conservation and sustainable use of biodiversity and ecosystems\* |  | Finance mobilized for capacity-building  Financial and technical assistance provided in dollars (including through South-South, North-South and triangular cooperation)  Finance mobilized for promoting the development, transfer, dissemination and diffusion of technology  Number of scientists per population  Joint scientific papers published (in Ocean Biodiversity Information System (OBIS)) by sector  Nationally maintained research vessels  Proportion of total research budget allocated to research in the field of marine technology  Volume of official development assistance flows for scholarships by sector and type of study  Global imports of information and communication technology (ICT) goods as presented by bilateral trade flows by ICT goods categories  Total amount of funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies |
| 1**b** | A.1 Red List of Ecosystems  A.2 Extent of natural ecosystems  1.1 Percent of land and sea area covered by biodiversity-inclusive spatial plans\* | Priority retention of intact / wilderness areas | Number of countries using natural capital accounts in planning processes  Percentage of spatial plans utilizing information on key biodiversity areas  Habitat patches located within marine protected areas or integrated coastal zone management (ICZM)  Other spatial management plans (not captured as ICZM or marine spatial planning)  Number of countries using ocean accounts in planning processes  Proportion of transboundary basin area with an operational arrangement for water cooperation  Percent of total land area that is under cultivation  Extent of natural ecosystems by type  Number of countries implementing national legislation, policies or other measures regarding FPIC related to conservation  Ecosystem Integrity Index |
| 2 | 2.2 Area under restoration | Extent of natural ecosystems by type  Maintenance and restoration of connectivity of natural ecosystems | Habitat distributional range  Index of Species Rarity Sites, High Biodiversity Areas, Large Mammal Landscapes, Intact Wilderness and Climate Stabilization Areas  Increase in secondary natural forest cover  Annual tropical primary tree cover loss  Forest Landscape Integrity Index  Global Ecosystem Restoration Index  Free flowing rivers  Percentage of cropped landscapes with at least 10 per cent of natural land  Bioclimatic Ecosystem Resilience Index (BERI)  Priority retention of intact / wilderness areas  Status of key biodiversity areas  Biodiversity Habitat Index  Red List Index  Red List of Ecosystems  Living Planet Index  Species habitat Index |
| 3 | 3.1 Coverage of protected areas and other effective area-based conservation measures | Protected area coverage of key biodiversity areas  Protected Area Management Effectiveness (PAME)  ProtConn  Protected Area Connectedness Index (PARC-Connectedness)  Red List of Ecosystems  Connectivity Indicator  The number of protected areas that have completed a site-level assessment of governance and equity (SAGE)  Species Protection Index | Protected area downgrading, downsizing and degazettement (PD)  Status of key biodiversity areas  IUCN Green List of Protected and Conserved Areas  Number of hectares of UNESCO designated sites (natural and mixed World Heritage sites and Biosphere Reserves)  Protected area and other effective area-based conservation measures management effectiveness (MEPCA) indicator  Protected Area Isolation Index (PAI)  Protected Areas Network metric (ProNet)  Extent to which protected areas and other effective area-based conservation measures cover key biodiversity areas that are important for migratory species  Coverage of protected areas and other effective area-based conservation measures and traditional territories (by governance type)  Ramsar Management Effectiveness Tracking Tool (R-METT)  Percentage of biosphere reserves that have a positive conservation outcome and effective management  Extent of indigenous peoples and local communities’ lands that have some form of recognition  Species Protection Index  Number of countries implementing national legislation, policies or other measures regarding free, prior and informed consent related to conservation  Red List of Ecosystems  Proportion of terrestrial, freshwater and marine ecological regions which are conserved by protected areas or other effective area-based conservation measures |
| 4 | A.3 Red list Index  A.4 The proportion of populations within species with an effective population size > 500 | Living Planet Index  Number of plant and animal genetic resources secured in medium or long-term conservation facilities  Trends in effective and sustainable management of human-wildlife conflict and coexistence  Green Status of Species Index  Conservation status of species listed in the CITES Appendices has stabilized or improved | Species threat abatement and restoration metric  Changing status of evolutionary distinct and globally endangered species (EDGE Index)  Percentage of threatened species that are improving in status  Number of CMS daughter agreements  Proportion of local breeds classified as being at risk of extinction  Red List Index (wild relatives of domesticated animals)  Rate of invasive alien species establishment |
| 5 | 5.1 Proportion of fish stocks within biologically sustainable levels | Red List Index for used species  Living Planet Index for used species  Sustainable use of wild species | Sustainable watershed and inland fisheries index  Red List Index (for internationally traded species and for migratory species)  Marine Stewardship Council Fish catch  Total catch of cetaceans under the International Convention for the Regulation of Whaling  By-catch of vulnerable and non-target species  Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing  Proportion of legal and illegal wildlife trade consisting of species threatened with extinction  Illegal trade by CITES species classification  Number of countries incorporating trade in their national biodiversity policy  Proportion of terrestrial, freshwater and marine ecological regions which are conserved by protected areas or other effective area-based conservation measures  Implementation of measures designed to minimize the impacts of fisheries and hunting on migratory species and their habitats  Number of MSC Chain of Custody Certification holders by distribution country  Trends of trade and commercialization in biodiversity-based products that is sustainable and legal (in line with BioTrade Principles and/or CITES requirements) |
| 6**b** | 6.1 Rate of invasive alien species establishment | Rate of invasive species impact and rate of impact  Rate of invasive alien species spread  Number of invasive alien species introduction events | Number of invasive alien species in national lists as per the Global Register of Introduced and Invasive Species  Trends in abundance, temporal occurrence, and spatial distribution of non-indigenous species, particularly invasive, non-indigenous species, notably in risk areas (in relation to the main vectors and pathways of spreading of such species)  Red List Index (impacts of invasive alien species) |
| 7 | 7.1 Index of coastal eutrophication potential  7.2 Pesticide environment concentration\* | Fertilizer use  Proportion of domestic and industrial wastewater flow safely treated  Floating plastic debris density (by micro and macro plastics)  Red List Index (impact of pollution) | Trends in loss of reactive nitrogen to the environment.  Trends in nitrogen deposition  Municipal solid waste collected and managed  Hazardous waste generation  Trends in the amount of litter, including microplastics, in the water column and on the seafloor  Index of coastal eutrophication;  Plastic debris density  Red List of Ecosystems  Underwater noise pollution  Name, amount/ volume/ concentration of highly hazardous pesticides by type (per land/marine area)  Pesticide use per area of cropland |
| 8b | - | Total climate regulation services provided by ecosystems and by ecosystem type (System of Environmental Economic Accounts)  Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 which include biodiversity  National greenhouse inventories from land use and land-use change  BERI | Above-ground biomass stock in forest (tonnes/ha)  National greenhouse inventories from land use and land-use change  Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies  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  Index of coastal eutrophication  Carbon stocks and annual net greenhouse gas emissions, by land-use category, split by natural and non-natural land cover |
| 9**b** | 9.1 Benefits from the sustainable use of wild species  9.2 Percentage of the population in traditional occupations | Number of people using wild resources for energy, food or culture (including firewood collection, hunting and fishing, gathering, medicinal use, craft making, etc.)  Red List Index (species used for food and medicine)  Living Planet Index for used species | Proportion of fish stocks within biologically sustainable levels  Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing  Number of MSC Chain of Custody Certification holders by distribution country  Spawning stock biomass (related to commercially exploited species)  Number of plant and animal genetic resources for food and agriculture secured in medium- or long-term conservation facilities  Volume of production per labour unit by classes of farming/pastoral/ forestry enterprise size |
| 10 | 10.1 Proportion of agricultural area under productive and sustainable agriculture  10.2 Progress towards sustainable forest management | Area of forest under sustainable management: total forest management certification by the Forest Stewardship Council and the Programme for the Endorsement of Forest Certification  Average income of small-scale food producers, by sex and indigenous status | Agrobiodiversity Index  Changes in soil organic carbon stocks  Red List Index (wild relatives of domesticated animals)  Red List Index (pollinating species)  Proportion of local breeds classified as being at risk of extinction  Proportion of land that is degraded over total land area |
| 11 | B.1 Services provided by ecosystems\* | Number of deaths, missing persons and directly affected persons, attributed to disasters per 100,000 population  Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services  Annual mean levels of fine particulate matter (e.g., PM2.5 and PM10) in cities  Proportion of bodies of water with good ambient water quality  Level of water stress | Air emission accounts  Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management  Proportion of population using safely managed drinking water services  Mortality rate attributed to household and ambient air pollution (SDG indicator 3.9.1) |
| 12**b** | 12.1 Average share of the built-up area of cities that is green/blue space for public use for all | Recreation and cultural ecosystem services provided |  |
| 13**b** | C.1 Indicator on monetary benefits received  C.2 Indicator on non-monetary benefits | Number of permits or their equivalents for genetic resources (including those related to traditional knowledge) by type of permit | 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  Total number of permits, or their equivalent, granted for access to genetic resources  Total number of internationally recognized certificates of compliance published in the ABS Clearing-House  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  Number of countries that require prior informed consent that have published information on access and benefit-sharing procedures in the ABS Clearing-House  Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits  Estimated percentage of monetary and non-monetary benefits directed towards conservation and sustainable use of biodiversity |
| 14**b** | *-* | Number of countries with Implementation of the System of Environmental-Economic Accounting | Human Appropriation of Net Primary Production (HANPP)  CO2 emission per unit of value added  Change in water-use efficiency over time |
| 15**b** | 15.1 Number of companies reporting on disclosures of risks, dependencies and impacts on biodiversity\* | Indicator based on the Task Force for Nature-related Financial Disclosures | Species threat abatement and restoration metric  Number of companies publishing sustainability reports |
| 16**b** | - | Food waste Index  Material footprint per capita  Global environmental impacts of consumption  Ecological footprint | Extent to which (a) global citizenship education and (b) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (i) national education policies; (ii) curricula; (iii) teacher education; and (iv) student assessments  Recycling rate  Life cycle Impact assessment (LCIA) e.g.  LIME; Life-cycle impact assessment method based on endpoint modelling  Levels of poverty in developing communities |
| 17**b** | *-* |  | Number of countries that have the necessary biosafety legal and administrative measures in place  Number of countries that implement their biosafety measures  Number of countries that have the necessary measures and means for detection and identification of products of biotechnology  Number of countries that carry out scientifically sound risk assessments to support biosafety decision-making  Number of countries that establish and implement risk management measures  Percentage of Parties to the Cartagena Protocol on Biosafety implementing the relevant provisions of the Protocol  Number of countries with legal and technical measures for restoration and compensation  Percentage of Parties to the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress  Percentage of countries with systems in place for restoration and compensation of damage to conservation and sustainable use of biological diversity  Number of countries that establish and implement risk management measures  Number of countries with mechanisms to facilitate the sharing of and access to information on potential adverse impacts of biotechnology on biodiversity and human health |
| 18 | 18.1 Positive incentives in place to promote biodiversity conservation and sustainable use  18.2 Value of subsidies and other incentives harmful to biodiversity that have been eliminated, phased our or reformed | Value of subsidies and other incentives harmful to biodiversity, that are redirected, repurposed or eliminated | Number of countries with biodiversity-relevant taxes  Number of countries with biodiversity-relevant charges and fees  Number of countries with biodiversity-relevant tradable permit schemes  Trends in potentially environmentally harmful elements of government support to agriculture (producer support estimate)  Trends in the number and value of government fossil fuel support measures  Amount of fossil-fuel subsidies per unit of gross domestic product (production and consumption) |
| 19 | D.1 International public funding, including official development assistance (ODA) for conservation and sustainable use of biodiversity and ecosystems  D.2 Domestic public funding on conservation and sustainable use of biodiversity and ecosystems  D.3 Private funding (domestic and international) on conservation and sustainable use of biodiversity and ecosystems\* |  | Amount of funding provided through the Global Environment Facility and allocated to the biodiversity focal area  Foreign direct investment, official development assistance and South-South cooperation  Amount and composition of biodiversity-related finance reported to the OECD Creditor reporting system  Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries  Dollar value of all resources made available to strengthen statistical capacity in developing countries  Amount of biodiversity-related philanthropic funding  Proportion of total research budget allocated to research in the field of marine technology  Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies  Number of countries (and number of instruments) with payments for ecosystem services (PES) programmes  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 |
| 20 | - |  |  |
| 21 | 21.1 Indicator on biodiversity information for the monitoring the Kunming-Montreal Global Biodiversity Framework | Species Status Index  Extent to which (a) global citizenship education and (b) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (i) national education policies, (ii) curricula, (iii) teacher education and (iv) student assessments | Growth in number of records and species in the Living Planet Index database  Growth in species occurrence records accessible through the Global Biodiversity Information Facility  Growth in marine species occurrence records accessible through the Ocean Biodiversity Information System (OBIS)  Proportion of known species assessed through The IUCN Red List of Threatened Species™  Number of assessments on the IUCN Red List of Threatened Species™  World Association of Zoos and Aquariums (WAZA) bio-literacy survey (Biodiversity literacy in global zoo and aquarium visitors)  Species Status Information Index |
| 22**b** | - | Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure | 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  Number of countries with systems to track and make public allocations for gender equality and women’s empowerment  Proportion of total agricultural population with ownership or secure tenure rights over agricultural land, by sex; and share of women among owners or rights-bearers of agricultural land, by type of tenure  Number of countries where the legal framework (including customary law) guarantees women’s equal rights to land ownership and/or control  Number of protected areas that have completed a site-level assessment of governance and equity (SAGE)  Trends in number of environmental human rights defenders killed annually, disaggregated by country and gender; and number of indigenous environmental human rights defenders killed  Land tenure of indigenous peoples and local communities by sex and type of tenure  Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group |
| 23**b** | - | Proportion of seats held by women in (a) national parliaments and (b) local governments  Indicator on national implementation of the Gender Plan of Action  Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation; and (b) who perceive their rights to land as secure, by sex and type of tenure | 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  Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and share of women among owners or rights-bearers of agricultural land, by type of tenure  Number of countries with systems to track and make public allocations for gender equality and women’s empowerment  Number of protected areas that have completed a site-level assessment of governance and equity (SAGE)  Percentage of population who believe decision‑making is inclusive and responsive, by sex, age, disability and population group  Proportion of countries where the legal framework (including customary law) guarantees women’s equal rights to land ownership and/or control |

*Annex II*

TERMS OF REFERENCE FOR THE AD HOC TECHNICAL EXPERT GROUP ON INDICATORS FOR THE Kunming-Montreal GLOBAL BIODIVERSITY FRAMEWORK

1. The Ad Hoc Technical Expert Group on Indicators will work:

1. To provide technical advice on remaining and unresolved issues relating to the monitoring framework for the Kunming-Montreal Global Biodiversity Framework, as outlined by the Conference of the Parties at its fifteenth meeting, and to prioritize work on the following elements leading up to the sixteenth meeting of the Conference of the Parties:
2. Support the work to address critical gaps to improve the monitoring framework, in particular on headline indicators that do not have an existing methodology, and advise on their implementation at the national level. Attention should be paid to fill gaps under Goals B, C and D and Targets 2, 13 and 14 to 22, given the imbalance in available headline indicators and their interlinkages across the goals and targets of the Kunming-Montreal Global Biodiversity Framework;
3. Support the identification of important aspects related to the disaggregation and aggregation for each headline indicator, as applicable, including any methodological improvements as appropriate;
4. Identify gaps in terms of the operationalization of each headline indicator, the management of data flows and advise on implementation at the national level;
5. Keep the list of binary, component and complementary indicators under review;
6. Advise on the wording of questions to construct binary indicators to be used in national reports building upon table 1 below;
7. To provide guidance to Parties on the use of indicators in national planning and reporting, including by reviewing how indicators are proposed for capture in the Online Reporting Tool for national reporting;
8. To provide guidance to Parties on ways to fill temporal and spatial data gaps, including through the use of big data, citizen science, community-based monitoring and information systems, remote sensing, modelling and statistical analysis, and other forms of data and other knowledge systems, recognizing the specific challenges faced by developing country Parties to develop and access information tools;
9. To provide advice on the existing capacity, gaps and needs in terms of capacity development, technology transfer and financing needs related to the monitoring of the Kunming-Montreal Global Biodiversity Framework.

2. The Ad Hoc Technical Expert Group will take into account:

(a) Previous work and experience under the Convention and other relevant programmes of work concerning indicators and monitoring;

(b) Statistical standards and development under the Statistical Commission or other statistical offices;

(c) Previous work and experience with other relevant global, regional, national and subnational monitoring frameworks, multilateral environment agreements, and knowledge systems;

(d) Recent developments and information on issues related to the indicators, their metadata and baselines.

3. The Ad Hoc Technical Expert Group will be composed of 30 technical experts nominated by Parties, including experts on statistics and experts in relevant social and natural sciences, and up to 15 representatives nominated by observer organizations and other relevant organizations. The Executive Secretary, in consultation with the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice, will select experts from the nominations submitted by Parties and organizations with due regard to representation of different areas of technical expertise, and ensuring balance in expertise on all aspects of the goals and targets of the Kunming-Montreal Global Biodiversity Framework, also taking into account geographical representation, and the representation of indigenous peoples and local communities, women’s and youth groups, and major stakeholders, gender balance and the special conditions of developing countries, in particular the least developed countries and small island developing States, and countries with economies in transition, also taking into consideration the special situation of developing countries that are most environmentally vulnerable, such as those with arid and semi-arid zones, coastal and mountainous area.

4. The Ad Hoc Technical Expert Group will nominate two co-chairs from among the selected experts.

5. The Chair of the Subsidiary Body on Scientific, Technical and Technological Advice will be invited to participate, ex officio, in the Ad Hoc Technical Expert Group.

6. The Ad Hoc Technical Expert Group may also invite other experts, as appropriate, to contribute their expertise and experiences on specific issues related to the terms of reference of the Ad Hoc Technical Expert Group.

7. The Ad Hoc Technical Expert Group will primarily conduct its work electronically and, subject to the availability of resources, will also meet physically, if possible, at least twice during the intersessional period.

8. The Ad Hoc Technical Expert Group should be established and start its work immediately after approval by the Conference of the Parties at its fifteenth meeting and report on its work to the Subsidiary Body on Implementation and the Subsidiary Body on Scientific, Technical and Technological Advice at meetings held prior to the sixteenth meeting of the Conference of the Parties.

**Table 1.** **Global scale indicators to be considered for further development by the Ad Hoc Technical Expert Group and collated from binary (yes/no) reporting from countries through national reports**

*Note: This table is being shared with the Ad Hoc Technical Expert Group as an indication of the types of binary indicators that might be considered. This text has not been agreed or negotiated. It is being shared for information only.*

| **1. Goal/ Target** | **2. Global indicator derived from binary reporting** |
| --- | --- |
| B | Number of countries with national constitution or legislation recognizing and implementing and monitoring a right to a healthy environment |
| 1 | Number of countries using terrestrial and marine spatial planning to identify areas of high biodiversity importance in national development planning |
| 6 | Number of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species |
| 8 | Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications that reflect biodiversity |
| 9 | Number of countries with legal instruments to regulate the use and trade of wild species, and respecting customary sustainable use by indigenous peoples and local communities |
| 12 | Number of countries with urban sustainability plans referring to green and/or blue spatial management |
| 13 / C | Number of countries that have operational legislative, administrative or policy frameworks which relate to Target 13 |
| 14 | Number of countries with national targets for integrating biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies and accounts at all levels, ensuring that biodiversity values are mainstreamed across all sectors and integrated into assessments of environmental impacts |
| 15 | Number of countries taking legal, administrative or policy measures to ensure that Target 15 is achieved |
| 16 | Number of countries developing, adopting or implementing policy instruments aimed at supporting the shift to sustainable consumption and production (SDG Indicator 12.1.1) |
| 17 | Number of countries with capacity and measures in place related to Target 17 |
| 22 | Number of countries recognizing the legal rights of indigenous peoples and local communities, environmental human rights defenders, women, youth and persons with disabilities with respect to their traditional territories, cultures and practices |
| 23 | Number of countries where the legal framework (including customary law) guarantees women’s equal rights to land ownership and/or control |

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1. Secretariat of the Convention on Biological Diversity (2020). *Global Biodiversity Outlook 5*. Montreal. [↑](#footnote-ref-2)
2. Sharrock, S. (2020). *Plant conservation report 2020: A review of progress towards the Global Strategy for Plant Conservation 2011-2020*. Secretariat of the Convention on Biological Diversity, Montréal, Canada and Botanic Gardens Conservation International, Richmond, UK. Technical Series No. 95. [↑](#footnote-ref-3)
3. Binary indicators will be further developed by the Ad Hoc Technical Expert Group on Indicators for the Kunming-Montreal Global Biodiversity Framework (see table 1 in annex II to the present decision) and made available for consideration by the Conference of the Parties at its sixteenth meeting. [↑](#footnote-ref-4)
4. For goals or targets marked with **b**: a binary indicator was proposed for inclusion for this goal or target and will be further considered by the Ad Hoc Technical Expert Group. [↑](#footnote-ref-5)
5. Indicators marked with an asterisk (\*): an agreed up-to-date methodology does not exist for this indicator. The Ad Hoc Technical Expert Group will work with partners to guide the development of these indicators. [↑](#footnote-ref-6)