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SUGGESTED INDICATORS FOR THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020 AND THE AICHI BIODIVERSITY TARGETS

Note by the Executive Secretary

EXECUTIVE SUMMARY

In decision X/2 Parties to the Convention adopted the Strategic Plan for Biodiversity 2011-2020 with its Aichi Biodiversity Targets and recognized that the Strategic Plan represents a flexible framework for the establishment of national and regional targets and for enhancing coherence in the implementation of the provisions of the Convention. In paragraph 5 of decision X/7, the Conference of the Parties requested the Executive Secretary to convene an Ad Hoc Technical Expert Group (AHTEG) meeting to provide guidance for monitoring the implementation of the Strategic Plan for Biodiversity 2011-2020. This note contains the suggested indicator framework for assessing progress in the implementation of the Strategic Plan for Biodiversity 2011-2020, building from the outcomes of this meeting (UNEP/CBD/SBSTTA/15/INF/6).

The proposed indicator framework is structured around four overarching policy questions (How is the status of biodiversity changing? Why are we losing biodiversity? What are the implications of biodiversity loss? What do we do about biodiversity loss?) and a set of 12 headline indicators, under which operational indicators are then organized. The operational indicators are categorized as: A - global priority and ready for use; B - priority for development at global level; C –for consideration at sub-global level. The operational indicators build on the indicators agreed for assessing progress towards the 2010 target of a significant reduction in the rate of biodiversity loss (decisions VII/30 and VIII/15) and several are already being developed and used by other conventions and or processes.

There is a reasonably good basis for monitoring biodiversity globally but significant investments will be necessary to enable countries with limited capacities to establish adequate biodiversity monitoring

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systems and indicators. It will be essential that countries with limited capacities for developing and applying indicators based on national data and monitoring are enabled to carry out the monitoring activities that are considered a priority at national level. This will imply the need for financial resources and technical support. The organizations involved in the Biodiversity Indicators Partnership could have a key role in assisting countries to develop appropriate monitoring programmes and indicators, subject to the availability of financial resources.

In accordance with decision X/2, Parties to the Convention have committed to reporting information on progress made towards targets adopted at the national level in their fifth national report due in March 2014. The Aichi Biodiversity Targets and proposed indicator framework provide a flexible framework for Parties to be adapted taking into account national priorities and circumstances. For most headline indicators it is likely that countries will use different metrics and methodologies for their indicators depending on national targets and available data and methods. Where quantitative trend information relating to themes and headline indicators is reported by Parties it could be aggregated globally in the form of qualitative change (e.g. number of indicators showing improving trends). Where a significant number of countries use comparable data and methods a quantitative analysis of trends may be possible.

SUGGESTED RECOMMENDATIONS

The Subsidiary Body on Scientific, Technical and Technological Advice may wish to make a recommendation along the following lines:

The Subsidiary Body on Scientific, Technical and Technological Advice:

1. *Welcomes* the report of the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 (UNEP/CBD/SBSTTA/15/INF/6) and *requests* the Executive Secretary to circulate it widely to partner organizations to solicit their comments and inputs;

2. *Also welcomes* the contribution made by the Group on Earth Observation Biodiversity Observation Network, in collaboration with IUCN – The World Conservation Union and the UNEP World Conservation Monitoring Centre on the Adequacy of Biodiversity Observation Systems to Support the CBD 2020 Targets (UNEP/CBD/SBSTTA/15/INF/8);

3. *Further welcomes* the review of National Indicators, Monitoring and Reporting for Global Biodiversity Targets commissioned by the Department for Environment, Food and Rural Affairs of the United Kingdom and carried out by the UNEP World Conservation Monitoring Centre (UNEP/CBD/SBSTTA/15/INF/9);

4. *Takes note* of the conclusions of the Ad Hoc Technical Expert Group concerning the indicator framework for the Strategic Plan for biodiversity 2011-2020, including the following:

(a) Communication of biodiversity information should be organized around the following overarching policy questions: How is the status of biodiversity changing? (*State of biodiversity*); Why are we losing biodiversity? (*Pressures on biodiversity and their underlying causes*); What are the implications? (*Benefits from biodiversity*); and What do we do about it? (*Responses to address biodiversity loss at all levels*);

(b) A set of 12 headline indicators can be used to present information relevant to the high-level policy questions and covers the ambitions set out in the Aichi Biodiversity Targets;

(c) Each headline indicator covers several sub-topics for which distinct metrics or operational indicators are required;

(d) A number of operational indicators (currently 22) are ready for use at the global level; another group (currently 51) consists of indicators that should be developed as a priority for use at the global level and development is already underway for a number of them. The main needs for the further

development of indicators pertain to Strategic Goals A (mainstreaming), D (benefits), and E (implementation);

(e) The Aichi Biodiversity Targets and proposed indicator framework provide a flexible framework for Parties to be adapted, taking into account national priorities and circumstances. For most headline indicators it is likely that Parties will use different metrics and methodologies for their indicators depending on national targets and available data and methods;

(f) A list of indicators primarily for use at the sub-global level has been developed as guidance for Parties as they develop monitoring programmes for their national biodiversity strategies in accordance with decision X/2;

(g) Countries with limited capacities for developing and applying indicators based on national data and monitoring will require financial resources and technical support to design and carry out priority monitoring activities required at the national level. Members of the Biodiversity Indicators Partnership could have a role in providing technical assistance as appropriate;

(h) The mid-term evaluation of the Strategic Plan, as well as the experience in using the indicators in the fifth National Reports and in the fourth edition of the Global Biodiversity Outlook, will provide opportunities to review progress in developing and using indicators and to assess the adequacy and effectiveness of indicator framework for monitoring progress, at national and global levels, towards the achievement of the Strategic Plan for Biodiversity 2011-2020.

5. *Requests* the Executive Secretary, in collaboration with the members of the Biodiversity Indicators Partnership and other indicator lead agencies, to develop technical guidance on the indicators for global use for which such guidance has not already been developed.

6. *Recommends* that the Conference of the Parties:

(a) *Thanks* the European Union for its financial support of the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 and to the Government of Canada, the European Environment Agency, Norway, Switzerland and the United Kingdom for their support of the International Expert Workshop held from 20-22 June 2011 in High Wycombe, United Kingdom, in support of the AHTEG on Indicators for the Strategic Plan for Biodiversity 2011-2020,

(b) *Agrees* that the indicator framework (consisting of a conceptual model, policy questions, headline indicators, indicator sub-topics and prioritized operational indicators) provides a sufficient basis to assess progress in the achievement of the Strategic Plan for Biodiversity 2011-2020 at various scales,

(c) *Confirms* that the indicator framework should be applied flexibly for specific purposes and be considered as guidance for Parties and other Governments in the development or refinement of their monitoring and assessment systems to support the development and implementation of National Biodiversity Strategies and Action Plans (NBSAPs) as well as implementation of the Strategic Plan for Biodiversity 2011-2020,

(d) *Decides* that the indicator framework for the Strategic Plan should be kept under review with a view to enabling the future incorporation of relevant indicators developed by other Conventions and processes that are relevant to monitoring biodiversity,

(e) Considering that the mid-term evaluation of the implementation of the Strategic Plan a as well as the ongoing experience in the use of the indicators in the fifth National Reports and in the fourth edition of the Global Biodiversity Outlook will provide opportunities to review of progress in the development and use of indicators and the adequacy and effectiveness of the indicator framework for monitoring progress, at national and global levels, towards the achievement of the Strategic Plan for Biodiversity 2011-2020, *requests* the Executive Secretary to provide regular reports to a meeting of the Subsidiary Body on Scientific, Technical and Technological Advice prior to each of the meetings of the Conference of the Parties until 2020;

(f) Noting that the information obtained through the 5th National Report will be a key input to the fourth edition of Global Biodiversity Outlook and contribute to the evaluation of the implementation of the Millennium Development Goals in 2015, *invites* Parties and other Governments to make significant efforts towards preparing indicator-based reports where appropriate;

(g) *Encourages* Parties, especially those with limited resources (and not yet using systematically produced indicators in their official reports) to initially establish a few simple indicators for priority issues identified within their national biodiversity strategies and action plans and in line with the Aichi Biodiversity Targets, to demonstrate the benefits of the use of the indicators and build support for the development and use of additional indictors for other issues in a step-by-step manner;

(h) *Encourages* Parties and other Governments to contribute to, update, verify and maintain relevant national data in regional and global data sets as a contribution to optimize and coordinate the production of indicators for monitoring and reporting at various scales;

(i) *Invites* relevant organizations, including funding bodies, to encourage and support the long-term monitoring and reporting of priority information, including by promoting the development or strengthening of 'communities of practice' on biodiversity monitoring and by ensuring that available data at all scales are made publicly available;

(j) *Requests* the the Executive Secretary, in collaboration with the UNEP World Conservation Monitoring Centre and other members of the Biodiversity Indicators Partnership, to compile technical guidance materials for capacity building and support to Parties for the further development of indicators and monitoring and reporting systems and to make it accessible in form of a toolkit, building on the material already available on the Biodiversity Indicators Partnership web pages.

I. INTRODUCTION

1. The tenth meeting of the Conference of the Parties adopted the Strategic Plan for Biodiversity 2011-2020 (decision X/2) including the 20 Aichi Biodiversity Targets. It was agreed that the Strategic Plan for Biodiversity would serve as a flexible framework for setting national/regional targets. Decision X/2 includes a time table for the development and reporting of national/regional targets as well as the development of national/regional monitoring programmes to enable countries/regions to assess progress made towards their targets. At the same time global monitoring and reporting, building on previously agreed indicators, and information submitted in the fifth national reports, as well as the fourth edition of Global Biodiversity Outlook, would provide inputs for a mid-term review of the implementation of the Strategic Plan in conjunction with the evaluation of the Millennium Development Goals (decision X/4).

2. In decision X/7 (paragraph 5) the Conference of the Parties requested the Executive Secretary to convene a meeting of an Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020. This note contains the suggested indicator framework for assessing progress in the implementation of the Strategic Plan for Biodiversity 2011-2020 building from the outcomes of the Ad hoc Technical Expert Group (AHTEG) in line with decision X/7.

II. POSSIBLE FRAMEWORK AND INDICATORS FOR ASSESSING PROGRESS IN THE IMPLEMENTATION OF THE STRATEGIC PLAN FOR BIODIVERSITY AND THE AICHI BIODIVERSITY TARGETS

A. Indicator framework

3. The conceptual model for communicating the different types of indicators for assessing progress towards the Strategic Plan for Biodiversity 2011-2020 is based on four overarching policy questions

which link to the goals of the Strategic Plan and which are loosely based on the DPSIR (driver-pressure-state-impact-response) model (see annex I). The questions are:

(a) How is the status of biodiversity changing? (*state*);

(b) What are the implications of biodiversity loss? (*benefits*);

(c) Why are we losing biodiversity? (*pressures and underlying causes*); and

(d) What do we do about biodiversity loss? (*responses at all levels*).

4. For each of the policy questions a series of headline indicators have been developed in order to structure the information required to provide the answers to policymakers, linking to the goals of the Strategic Plan. In total 12 headline indicators were developed around these questions, under which operational indicators are organized (e.g. for communication to decision-makers), noting that each headline indicator covers several sub-topics for which distinct metrics or operational indicators are required. Each of the 12 headline indicators has at least one, but in most cases several operational indicators associated with it. The operational indicators are the metrics, methods and analytical frameworks through which progress will actually be measured (see annex II). Some operational indicators may be relevant and capable of application at all scales (global – regional – national - sub-national), whereas others are relevant or limited by data to particular scales. The proposed operational indicators which are divided into three categories:

A. Priority indicators that are ready for use globally, and, where appropriate, sub-globally;

B. Priority indicators to be developed at global and sub-global levels;

C. Additional indicators for consideration at sub-global level.

5. The first group (A) of indicators represents those which have data, a methodology and have been peer-reviewed and/or published. While some of these indicators could benefit from more robust data to fill information gaps, they can currently be used to assess progress towards the Strategic Plan at the global level. The second group (B) of indicators represent those which could be developed in time to assess progress towards the Strategic Plan at the global level and are urgently required to fill gaps in the assessment framework. While many of these indicators require further development to be applicable globally and across multiple ecosystems, several can currently be used to assess progress in the implementation of the Strategic Plan for certain components of biodiversity. Many of the indicators in these first two groups could be disaggregated or re-calculated for use at the sub-global level as well, depending on available data. The third group (C) of indicators represents additional indicators which could be useful at the sub-global level, depending on particular needs and circumstances, but which may be difficult to use to assess progress globally given limited data availability and comparability issues.

6. All targets, except target 1 (awareness about values of biodiversity) have at least one proposed operational indicator associated with them at the global level, though for target 16 (access and benefit-sharing) the operational indicator is as yet undefined. Many indicators are relevant to several targets (see annex II). Furthermore several of the indicators identified are currently being used by other conventions or processes including the United Nations Convention to Combat Desertification (UNCCD), the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES), the Convention on Migratory Species of Wild Animals (CMS), the Ramsar Convention on Wetlands and the Millennium Development Goals (MDGs).

7. The proposed framework to assess progress towards the implementation of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, as presented in annex II, builds from the indicators agreed in decision VII/30 and VIII/15. Furthermore, given the flexible nature of the Strategic Plan, the suggested framework for assessing its implementation is also flexible, thereby facilitating its use at the sub-global level and by different stakeholders, as well as for different purposes (e.g. communicating key issues; assessing progress in the implementation of national biodiversity strategies and action plans; assessing progress in the achievement of the Aichi Biodiversity Targets).

8. Indicators, particularly those on trends to establish performance, require that initial baselines be established to provide a reference point against which gains or losses can be assessed.

B. The further development of indicators agreed through decisions VII/30 and VIII/15

9. Long-term monitoring requires continuity in the use of indicators and maintenance of underlying data sets. The indicators agreed through decisions VII/30 and VIII/15 have been developed through the Biodiversity Indicators Partnership and have been applied, where possible, in the second and third editions of Global Biodiversity Outlook and should continue to be used for future editions. In a few cases, changes to the wording of the indicators are required to bring them in line with the language of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. In addition, some of the existing indicators could be subsumed under broader headings or disaggregated into several in order to facilitate reporting at the global level. This does not imply changes to the way in which the indicators are calculated and applied.

C. Additional indicators that have been, or could be, developed

10. A limited number of indicators were identified that could be developed to address targets for which the existing suite of indicators is not adequate. Currently, the main gaps exist with regard to indicators for Strategic Goals A (mainstreaming), D (benefits) and E (implementation). Development of these additional indicators would allow monitoring of all components of the Strategic Plan. It should be noted that many indicators are relevant to several of the Aichi Biodiversity Targets. It is also important to recognize that many targets cover several concepts which need to be assessed through multiple metrics. At the same time several indicators are based on the same underlying data and therefore do not depend on additional data collection efforts.

11. A number of other indicator processes relevant to the Strategic Plan for Biodiversity 2011-2020 are currently underway, such as the work on methodologies and data needs for an effective use of the sub-set of impact indicators for the 10-year strategic plan and framework (2008-2018) to enhance the implementation of the United Nations Convention to Combat Desertification, or the discussions about monitoring for REDD plus[1]. Providing guidance on the use of indicators from other processes once these are completed would be in line with, and facilitate, the progressive identification and adoption of a set of commonly used key indicators. It also is a signal of the desire to seize opportunities to collaborate with other multi-lateral environmental agreements and relevant international organizations and agencies in working towards coherent and prioritized monitoring programmes for biodiversity.

12. Therefore, the proposed indicator framework should be kept under review with a view to enabling the future incorporation of relevant indicators developed by other Conventions and processes that are relevant to monitoring biodiversity.

[1] With reference to decision 1/CP.16 of the United Nations Framework Convention on Climate Change (UNFCCC), REDD-plus comprises reducing emissions from deforestation and forest degradation, conservation of forest carbon stocks, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

There is no limit to the number of indicators that might be applied at the sub-global level, as demonstrated in the analysis of indicators in use at national level (UNEP/CBD/SBSTTA/15/INF/9). Consequently, the absence of an indicator in the list prepared by the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 does not imply that it would be less suitable for a given purpose than one that might be in the list. In that sense, the list of indicators for consideration at sub-global level should be considered as indicative and used flexibly. Nevertheless, the list should provide useful guidance and examples for Parties seeking to monitor each of the elements and themes in the overall framework.

III. OPTIONS FOR THE ESTABLISHMENT OF MECHANISMS TO SUPPORT PARTIES IN THEIR EFFORTS TO DEVELOP NATIONAL INDICATORS AND ASSOCIATED BIODIVERSITY MONITORING AND REPORTING SYSTEMS

14. The adoption of the Strategic Plan for Biodiversity 2011-2020, together with the commitments by Parties (in line with decision X/2) to develop national and/or regional targets and to report on progress and achievements in 2012 and 2014, present significant opportunities for the provision of coherent guidance and the establishment of comparable systems (data sets, indicator methodologies and reporting) across a range of countries. Relevant organizations, including funding bodies, should encourage and support the long-term monitoring and reporting of priority information, including by promoting the development or strengthening of 'communities of practice' on biodiversity monitoring and by ensuring that available data at all scales are made publicly available. It will be critical to gradually increase the capacity for producing and communicating information, including indicators, and means should be mobilized to share the expertise with and amongst countries that have less capacity.

15. National adaptation of, and reporting of progress towards, the twenty Aichi Biodiversity Targets requires a range of expertise and information, and sometimes new ways of working. It is likely that not all countries will have this expertise, information and ways of working in place in the short term. However, by sharing experiences among the countries and involving, as appropriate, representatives of the scientific and development community, it will be possible to cover progressively the wide range of issues in the Strategic Plan for Biodiversity 2011-2020. 'Communities of Practice', for indicators relating to individual Aichi Targets and cross-cutting issues, operating within countries, regions and globally can provide necessary practical advice and encouragement, including the dissemination of lessons learned and solutions to problems. Capacity-building activities could for example:

(a) Develop capacities for the gathering and making publicly accessibility of data at all scales, using internet resources as appropriate;

(b) Involve stakeholders at all levels including Governments, NGOs, academic bodies and business;

(c) Be linked to the process of revising/updating national biodiversity strategies and action plans;

(d) Include a range of approaches such as peer-to-peer learning, technical training, expert exchanges, technical expert visits, and on-line support;

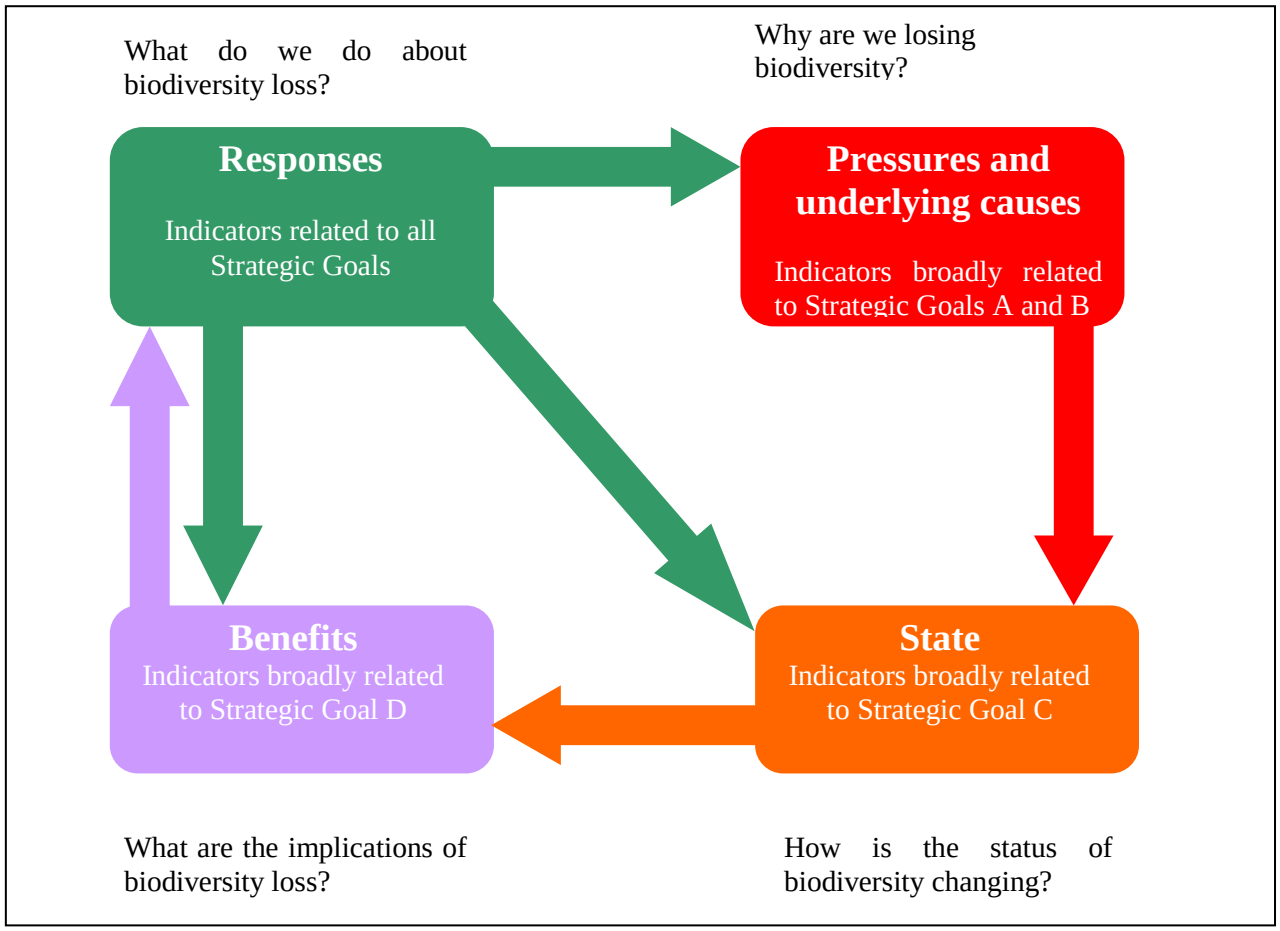
(e) Offer services from international organizations such as IUCN, UNEP-WCMC, UNDP and other members of the Biodiversity Indicators Partnership.

IV. STRENGTHENING OF LINKAGES BETWEEN GLOBAL AND NATIONAL INDICATOR DEVELOPMENT AND REPORTING

16. The Strategic Plan for Biodiversity 2011-2020 (decision X/2) urges Parties and other Governments to update their national biodiversity strategies and action plans (NBSAPs), including the setting of national targets, and to monitor and review implementation using the set of indicators developed for the Strategic Plan as a flexible framework. The adoption of the Aichi Biodiversity Targets or of the corresponding national targets and reporting on progress towards their achievement requires a step-change in the mode of implementation of the Convention, in terms of defining for the first time measurable targets and reporting on progress. Where the use of indicators is not an established part of decision-making and reporting, it may be beneficial to demonstrate their value for issues of high national priority. Countries, especially those with limited resources, and not yet using systematically produced indicators in their official reports, could initially establish a few simple indicators for priority issues identified within their NBSAPs and in line with the Aichi Biodiversity Targets. Countries not yet using systematically-produced indicators for biodiversity could also consider establishing or identifying a facilitator (individual, committee, agency or mechanism) to promote and co-ordinate the collection and production of national biodiversity information and to make it publicly available.

Annex I

CONCEPTUAL MODEL FOR COMMUNICATING THE DIFFERENT TYPES OF INDICATORS FOR ASSESSING PROGRESS TOWARDS THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020 (BASED ON THE INTERNATIONAL EXPERT WORKSHOP ON THE 2010 BIODIVERSITY INDICATORS AND POST-2010 INDICATOR DEVELOPMENT HELD IN READING, UNITED KINGDOM, FROM 6-8 JULY 2009)



Annex II

PROPOSED INDICATOR FRAMEWORK (POLICY QUESTIONS, HEADLINE INDICATORS AND OPERATIONAL INDICATORS) FOR ASSESSING PROGRESS TOWARDS THE IMPLEMENTATION OF THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020 AND ACHIEVEMENT OF THE AICHI BIODIVERSITY TARGETS

Policy Questions[2]	Headline Indicator	Operational Indicators[3] (A: Priority and ready for use globally, B: Priority to be developed at global level, C: For consideration at sub-global level)	Aichi Target	Other relevant Aichi Targets
State – How is the state of biodiversity changing?	Trends in extent, condition and vulnerability of ecosystems biomes and habitats	Trends in extent of selected biomes, ecosystems and habitats (A) (decision VII/30 and VIII/15)	5	14
		Trends in fragmentation of natural habitats (B) (decision VII/30 and VIII/15)	5	14, 15, 19
		Trends in proportion of degraded/threatened habitats (B)	5	10, 14, 15
		Trends in condition and vulnerability of ecosystems (C)	5	6, 7, 8, 9, 10, 11
		Trends in the proportion of natural habitats converted (C)	5	6, 7, 8, 9, 10, 11
		Extinction risk trends of habitat dependent species in each major habitat type (A)	5	6, 7, 8, 9, 10, 11, 12, 14
	Trends in abundance, distribution and extinction risk of species	Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)	12	5, 6, 7, 8, 9, 10, 11, 13, 14, 15
		Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS)	12	5, 6, 7, 9, 10, 11, 13, 14, 15
		Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD)	12	5, 9, 11, 14, 15
	Trends in genetic diversity of species	Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives (B) (decision VII/30 and VIII/15)	13	7, 14
		Trends in genetic diversity of selected species (C)	13	7, 11, 12, 14, 16,
Pressures &	Trends in	Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)	4	6, 7, 10, 14

[2] It should be noted that, depending on the context, a State indicator could also be a Pressure or Response indicator, etc. The categorization should therefore not be considered rigid but dependant on the key questions that are being asked.

[3] Where reference is made to decisions and processes through which selected indicators were previously agreed the exact wording for the indicator may differ slightly but the intent remains the same.

Policy Questions[2]	Headline Indicator	Operational Indicators[3] (A: Priority and ready for use globally, B: Priority to be developed at global level, C: For consideration at sub-global level)	Aichi Target	Other relevant Aichi Targets
underlying causes - Why are we losing biodiversity?	pressures from unsustainable agriculture, forestry, fisheries and aquaculture	Trends in population and extinction risk of utilized species, including species in trade (A) (also used by CITES)	4	5, 6, 7, 12, 14, 15
		Trends in extinction risk of target and bycatch aquatic species (A)	6	12
		Trends in population of target and bycatch aquatic species (A)	6	4, 12
		Trends in proportion of utilized stocks outside safe biological limits (A) (MDG indicator 7.4)	6	4, 7, 10, 12
		Trends in population of forest and agriculture dependent species in production systems (B)	7	12
		Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management	7	4,14
		Trends in production per input (B)	7	4
		Ecological limits assessed in terms of sustainable production and consumption (C)	4	6, 7, 14
		Trends in primary productivity (C)	5	15
		Trends in proportion of land affected by desertification (C) (also used by UNCCD)	5	15
		Trends in area, frequency, and/or intensity of destructive fishing practices (C)	6	5, 7, 11
		Trends in catch per unit effort (C)	6	4, 12
		Trends in fishing effort capacity (C)	6	4, 12
		Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15)	7	4, 6, 8, 9, 11, 14
	Trends in pressures from habitat conversion, pollution, invasive species, climate change, overexploitation and underlying drivers	Population trends of habitat dependent species in each major habitat type (A)	5	6, 7, 8, 9, 10, 11, 12, 14, 15
		Trends in incidence of hypoxic zones and algal blooms (A)	8	5, 10
		Trends in water quality in aquatic ecosystems (A) (decision VII/30 and VIII/15)	8	5, 10
		Trends in the impact of invasive alien species on extinction risk (A)	9	12
		Extinction risk trends of coral and reef fish (A)	10	10, 12
		Impact of pollution on extinction risk trends (B)	8	12
		Trends in pollution deposition rate (B) (decision VII/30 and VIII/15)	8	10
		Trends in sediment transfer rates (B)	8	10
		Trends in number of invasive alien species (B) (decision VII/30 and VIII/15)	9	10
		Trends in the economic impacts of selected invasive alien species (B)	9	2, 10,
		Trends in climate change impacts on extinction risk (B)	10	12
		Trends in coral reef condition (B)	10	5
		Trends in extent, and rate of shifts of boundaries, of vulnerable ecosystems (B)	10	5
		Trends in biodiversity of cities (C) (decision X/22)	4	2, 12, 14
		Trend in emission to the environment of pollutants relevant for biodiversity (C)	8	
		Trend in levels of contaminants in wildlife (C)	8	
		Trends in Nitrogen Footprint of consumption activities (C)	8	4
		Trends in ozone levels in natural ecosystems (C)	8	

Policy Questions[2]	Headline Indicator	Operational Indicators[3] (A: Priority and ready for use globally, B: Priority to be developed at global level, C: For consideration at sub-global level)	Aichi Target	Other relevant Aichi Targets
		Trends in proportion of wastewater discharged after treatment (C)	8	10
		Trends in UV-radiation levels (C)	8	10
		Trends in incidence of wildlife diseases caused by invasive alien species (C)	9	12
		Trends in climatic impacts on community composition (C)	10	5
		Trends in climatic impacts on population trends (C)	10	12
Benefits - What are the implications of biodiversity loss?	Trends in distribution, condition and sustainability of ecosystem services for equitable human well-being	Trends in benefits that humans derive from selected ecosystem services (A)	14	15
		Trends in proportion of the population using improved water services (A) (MDG indicator 7.8 and 7.9)	14	8
		Trends in proportion of total freshwater resources used (A) (MDG indicator 7.5)	14	4
		Population trends and extinction risk trends of species that provide ecosystem services (A)	15	5, 14
		Status and trends in extent and condition of habitats that provide carbon storage (A)	15	5, 7
		Trends in delivery of multiple ecosystem services (B)	14	
		Trends in health and wellbeing of communities who depend directly on local ecosystem goods and services (B) (decision VII/30 and VIII/15)	14	
		Trends in human and economic losses due to water or natural resource related disasters (B)	14	
		Trends in nutritional contribution of biodiversity: Food composition (B) (decision VII/30 and VIII/15)	14	7
		Trends in economic and non-economic values of selected ecosystem services (B)	14	2, 15
		Trends in biocapacity (C)	14	
		Trends in incidence of emerging zoonotic diseases (C)	14	
		Trends in inclusive wealth (C)	14	
		Trends in nutritional contribution of biodiversity: Food consumption (C) (decision VII/30 and VIII/15)	14	7
		Trends in prevalence of underweight children under-five years of age (C) (MDG indicator 1.8)	14	
		Trends in natural resource conflicts (C)	14	
		Trends in the condition of selected ecosystem services (C)	14	
Responses - What do we do about biodiversity loss?	Trends in awareness, attitudes and public engagement in support of biological diversity and ecosystem services	Trends in awareness and attitudes to biodiversity (C)	1	2, 4, 14, 17, 19
		Trends in communication programmes and actions promoting social corporate responsibility (C)	1	4
		Trends in public engagement with biodiversity (C)	1	2, 4, 14, 17,19
	Trends in integration of	Trends in number of countries incorporating natural resource, biodiversity, and ecosystem service values into national accounting systems (B)	2	3

	biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives	Trends in resources mobilized from the removal, reform, or phase out of incentives, including subsidies, harmful to biodiversity, which could be used for the promotion of positive incentives, including but not limited to innovative mechanisms that are consistent and in harmony with the Convention and other international obligations taking into account, national, social and economic conditions (B) (decision X/3)	3	2, 4, 5, 6, 7, 8, 9, 10, 20
		Trends in extent to which biodiversity and ecosystem service values are incorporated into organizational accounting and reporting (B)	4	2
		Trends in proportion of depleted target and bycatch species with recovery plans (B)	6	12
		Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)	7	2, 4, 5, 14
		Trends in invasive alien species pathways management (C)	9	10
		Trends in policy responses, legislation and management plans to control and prevent spread of invasive alien species (B)	9	2, 3, 17
		Trends in number of effective policy mechanisms implemented to reduce genetic erosion and safeguard genetic diversity related to plant and animal genetic resources (B)	13	16, 17
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)	17	All targets
		Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (B) (decision X/43)	18	5
		Trends in the practice of traditional occupations (B) (decision X/43)	18	5
		Trends in guidelines and applications of economic appraisal tools (C)	2	3, 4
		Trends in integration of biodiversity and ecosystem service values into integrated in sectoral and development policies (C)	2	4
		Trends in number of countries that have assessed values of biodiversity, in accordance with the Convention (C)	2	14,15, 19, 20
		Trends in policies considering biodiversity and ecosystem service in environmental impact assessment and strategic environmental assessment (C)	2	4
		Trends in identification, assessment and establishment and strengthening of incentives that reward positive contribution to biodiversity and ecosystem services and penalize adverse impacts (C)	3	1, 20
	Trends in access and equity of benefit-sharing of genetic resources	ABS indicator to be specified through the ABS process (B)	16	
	Trends in accessibility of scientific/technical/traditional knowledge and its application	Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (B)	18	9, 13, 17
		Trends in linguistic diversity and numbers of speakers of indigenous languages (B) (decision VII/30 and VIII/15)	18	
		Trends in coverage of comprehensive policy-relevant sub-global assessments including related capacity building and knowledge transfer, plus trends in uptake into policy (B)	19	1, 2, 17

		Number of maintained species inventories being used to implement the Convention (C)	19	
	Trends in coverage, condition, representativeness and effectiveness of protected areas and other area-based approaches	Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)	11	5, 6, 10, 12, 13
		Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)	11	5, 6, 7, 8, 9, 10, 12, 13,14,15
		Trends in the connectivity of protected and other area based approaches integrated into land- and seascapes (B) (decision VII/30 and VIII/15)	11	5, 7, 10, 12, 13, 14, 15
		Trends in extent of marine protected areas, coverage of key biodiversity areas and management effectiveness (A)	11	6, 7
		Trends in area of degraded ecosystems restored or being restored (B)	15	5, 14
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)	11	1, 2, 5, 6, 7, 8, 10, 12, 13, 14, 15, 16, 20
		Population trends of forest-dependent species in forests under restoration (C)	15	5, 14
	Trends in mobilization of financial resources	Indicators agreed in decision X/3	20	2, 3, 14, 15, 16, 17, 19