UNEP

CBD

Convention on Biological Diversity

Distr.
GENERAL

UNEP/CBD/AHTEG-SP-Ind/1/2
20 May 2011

ORIGINAL: ENGLISH

AD HOC TECHNICAL EXPERT GROUP MEETING
ON INDICATORS FOR THE STRATEGIC PLAN
FOR BIODIVERSITY 2011-2020
High Wycombe, United Kingdom, 20-24 June 2011

INDICATORS FOR THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020

Note by the Executive Secretary

I. INTRODUCTION

1. Through decision X/2, the Conference of the Parties adopted the Strategic Plan for Biodiversity 2011-2020, with its Aichi Biodiversity Targets, and urged Parties and other Governments to, *inter alia*, develop national and regional targets, using the Strategic Plan and its Aichi Targets, as a flexible framework (paragraph 3 (b)) and to monitor and review the implementation of their national biodiversity strategies and action plans and their national targets in accordance with the Strategic Plan and making use of the set of indicators developed for the Strategic Plan as a flexible framework (paragraph 3 (e)).

2. In decision X/7, 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 with the following terms of reference:

(a) Provide advice on the further development of indicators agreed through decisions VII/30 and VIII/15 and the information contained in annex III of document note by the Executive Secretary on examination of the outcome-oriented goals and targets (and associated indicators) and consideration of their possible adjustment for the period beyond 2010 (UNEP/CBD/SBSTTA/14/10) as well as in the table provided in the note by the Executive Secretary on the Strategic Plan for Biodiversity: provisional technical rationale, possible indicators and suggested milestones for the Aichi Biodiversity Targets *, where necessary in the context of the updated Strategic Plan for Biodiversity 2011-2020;

(b) Suggest additional indicators that have been, or could be, developed, where necessary, to constitute a coherent framework designed to assess progress towards targets of the Strategic Plan for Biodiversity 2011-2020, for which the current suite of indicators is not adequate, noting the lack of agreed indicators for ecosystem services, making use, where appropriate, of the indicators developed by other multilateral environmental agreements, organizations, or processes;

(c) Develop further guidance and propose options for the establishment of mechanisms to support Parties in their efforts to develop national indicators and associated biodiversity monitoring and reporting systems, in support of setting of targets, according to national priorities and capacities, and in the monitoring of progress towards them; and

(d) Provide advice on the strengthening of linkages between global and national indicator development and reporting.

* UNEP/CBD/COP/10/27/Add.1

3. Additional guidance for the development of indicators for the Strategic Plan for Biodiversity 2011-2020 is contained in decisions on the strategy for resource mobilization (X/3), national reporting (X/10), the Global Strategy for Plant Conservation 2011-2020 (X/17), communication, education and public awareness (X/18), gender mainstreaming (X/19), business engagement (X/21), the Plan of Action on Subnational Governments, Cities and Other Local Authorities for Biodiversity (X/22), inland waters biodiversity (X/28), marine and coastal biodiversity (X/29), mountain biological diversity (X/30), protected areas (X/31), sustainable use (X/32), biodiversity and climate change (X/33), and agricultural biodiversity (X/34).

4. The task assigned to the Ad Hoc Technical Expert Group on Indicators benefits from experience with the selection of indicators for the Strategic Plan 2002-2010 of the Convention on Biological Diversity (see decisions VII/30 and VIII/15 as well as technical documentation in preparation of these decisions), and their development through the Biodiversity Indicators Partnership (see in particular the third edition of Global Biodiversity Outlook and CBD Technical Series 53 and the note on the provisional technical rationale, possible indicators and suggested milestones for the Aichi Biodiversity Targets (UNEP/CBD/COP/10/27/Add.1)).

5. A number of additional documents in support of the meeting of the Ad Hoc Technical Expert Group on Indicators have been prepared since the tenth meeting of the Conference of the Parties to the CBD and are available to the Group. These include:

(a) A report on the "Adequacy of Biodiversity Observation Systems to support the CBD 2020 Targets" (UNEP/CBD/AHTEG-SP-Ind/1/INF/1), prepared by the Group on Earth Observations Biodiversity Observation Network (GEO BON), the International Union for Conservation of Nature (IUCN) and the UNEP World Conservation Monitoring Centre (UNEP-WCMC) in response to paragraph 6 of decision X/7;

(b) A report on National indicators, monitoring and reporting for the Strategic Plan for Biodiversity 2011-2020 (UNEP/CBD/AHTEG-SP-Ind/1/INF/2), prepared by UNEP-WCMC on behalf of the Department of the Environment, Food and Rural Affairs of the United Kingdom of Great Britain and Northern Ireland;

(c) A note on possible indicators for water and water related ecosystem services for the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets (UNEP/CBD/AHTEG-SP-Ind/1/INF/3), prepared by the Executive Secretary in collaboration with the Secretariat of the Ramsar Convention;

(d) A document on Monitoring biodiversity conservation in cities with the Singapore Index on Cities' Biodiversity (UNEP/CBD/AHTEG-SP-Ind/1/INF/4), submitted by the National Parks Board of Singapore;

(e) A document on a Biodiversity Barometer prepared by the Union for Ethcial BioTrade;

(f) A report on Making biodiversity safeguards for REDD+ work in practice, prepared by UNEP-WCMC on behalf of the Department of the Environment, Food and Rural Affairs of the United Kingdom of Great Britain and Northern Ireland;

(g) A report on SEBI (Streamlining European Biodiversity Indicators) - lessons learned from a regional process, submitted by the SEBI Coordination Team.

6. A number of additional documents to support the discussions of the meeting is also being made available on the meeting web page at http://www.cbd.int/doc/?meeting=AHTEG-SP-IND-01.

II. MONITORING FRAMEWORK

7. The Strategic Plan for Biodiversity 2011-2020 (decision X/2) provides a framework for action by all countries and stakeholders to manage biodiversity and enhance its benefits for people. It lays out a Vision for 2050, which is to be achieved through effective and urgent action to halt the loss of

biodiversity. The Strategic Plan sets the context for the 20 Aichi Biodiversity Targets, recognizing that these serve as a flexible framework for the establishment of national and regional targets.

8. The Aichi Biodiversity Targets are grouped under five Strategic Goals, addressing underlying causes of biodiversity loss, direct pressures, the status of biodiversity components, benefits derived from biodiversity, and measures to enhance implementation of the strategy. This structure can facilitate the construction of storylines, meaningful analyses of indicators and other information to support those storylines and the impacts of responses, or priority actions to be taken, to achieve the Vision of the Strategic Plan. At the same time, it has several implications for the types of indicators that could be selected to track progress:

(a) Certain targets refer to processes (or enabling conditions), particularly those under Strategic Goals A and E; others refer to direct actions (particularly regarding goals B and C) whereas others more explicitly refer to a desired state (particularly regarding goal D); as intended by the design of the Strategic plan, there are also links that could be drawn between these possible groupings of targets and the Vision of the Strategic Plan (essentially referring to the desired state) and its Mission (referring largely to action);

(b) The Aichi Biodiversity Targets could also be considered from the perspective of a driver-pressure-state-impact-response (DPSIR) compatible organization (indeed such was intended as part of their design as a set), with the addition of a category on benefits to reflect the provision of ecosystem services as key management objective.

(c) The Strategic Plan places emphasis, *inter alia*, on engagement, cooperation and mainstreaming beyond "biodiversity" interests. There are considerable opportunities to promote and facilitate cooperation with other processes, organizations and communities. This includes (as called for explicitly by the Conference of the Parties) using relevant indicators in use by other processes. The primary reason, in addition to saving effort and resources, is to enhance mainstreaming efforts and better coherence between the CBD and other processes and more visible recognition of the relevance of the Strategic Plan to human development;

(d) Indicators are often relevant to several targets (as suggested in the section on essential biodiversity variables in the GEO-BON report, and as previously agreed through decision VIII/15). Given the logical linkages and overlaps of themes across the targets, a one-to-one link between target and indicator is likely neither feasible nor desirable. This implies that using the Aichi Biodiversity Targets individually as the initial framework for identifying indicators is likely to present some difficulties. There may be some benefit in approaching the problem in different ways: for example, identifying possible storylines, indicator sets for these and, if the approach provides improved clarity, cross-checking the indicators against the targets in a later stage.

9. The purpose of developing a monitoring framework for the Strategic Plan for Biodiversity is to facilitate tracking progress and enable actors to make adjustments as necessary towards achieving the long-term vision. In that sense monitoring needs to consider the Strategic Plan as a whole, including targets set at local, national and regional levels.

III. HEADLINE INDICATORS AND SPECIFIC INDICATORS

10. Based on the guidance provided through decision X/7, a list of possible headline and other indicators so far identified is presented in the annex to this note. This is supplemented by a table with auxiliary information on the quality and feasibility of these indicators contained in document UNEP/CBD/AHTEG-SP-Ind/1/2/ADD.1. While this list is not comprehensive it does provide an overview of the various indicators which are currently available to track progress towards the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets.

11. The large number of indicators and metrics presented in this table is intended to fulfil several purposes and therefore serves as guidance for a range of potential users:

(a) The majority of indicators used in tracking progress towards the 2010 target are primarily based on global datasets with only a few drawing on national statistics. For global reporting purposes, such as future editions of the Global Biodiversity Outlook, these global indicators should be pursued;

(b) At the same time, countries have committed through decision X/2 to develop national targets and report on progress towards their achievement through national indicators. Recognizing that a specific indicator that is suitable and feasible in one country may not be so in another, a larger number of indicators are presented as guidance on which countries may wish to draw as they develop or refine their monitoring systems;

(c) Thirdly, more specialized processes on biodiversity science and policy, as well as processes on sustainable development at large may develop, or have available, indicators that can contribute to a headline indicator area in the particular subject of specialization. This may be achieved through the use of sub-indicators that focus on the particular area of interest while contributing to the overall framework and the analyses and storylines it permits. It is not essential that all possible such indicators are included. What is essential is that the monitoring framework creates the most open and relevant opportunities for the broadest feasible range of stakeholders to contribute;

(d) Similar considerations apply to processes and programmes of work under the CBD. Implementation of the Global Strategy for Plant Conservation, for example, might rely on the same indicators as those used for the Strategic Plan for Biodiversity, with sub-indicators disaggregated for plants where available.

12. To make a potentially large framework simple and easily communicated criteria or filters could be used that would facilitate the desired product. It might be borne in mind that whilst it is necessary to have some degree of confidence that there are effective mechanisms to report against all of the targets, and to support key storylines, and thereby to identify possible gaps, it is not necessarily essential that all relevant indicators are "adopted" as such. There is a strong case for flexibility in the monitoring framework and encouraging stakeholders to contribute to it, as they see fit, in their own areas of specialization.

13. Another consideration with regarding to the number and quality of indicators is the consequences of their inclusion or exclusion on the resources available for their maintenance and development. Some indicators used by the CBD have been identified in part on the basis of the existence of organizations/institutions that would take the lead on the indicator. This has resulted in the establishment of the Biodiversity Indicators Partnership. Members of the Partnership in its future form need to be enabled to pursue the indicator(s) under their responsibility. This may require a degree of recognition of their (potential) contribution to support funding proposals.

14. At the same time it is important to recognize that science evolves, existing data are being mobilized and new data are being collected, methods improve and opportunities for collaborative monitoring emerge. Also in some areas such as REDD-plus a political process needs to be completed before the appropriate monitoring system can be put in place. For these reasons it might be recognized that there is a need for a continuing monitoring framework development as process.

IV. NATIONAL/SUBGLOBAL INDICATORS

15. The Strategic Plan for Biodiversity 2011-2020 provides a flexible framework for setting national or regional targets and the development of appropriate national/regional monitoring schemes. Many countries have already identified indicators for monitoring biodiversity, however these are not always fully implemented. In the absence of suitable datasets, countries may opt to use process indicators or expert assessments.

16. Where countries participate in other relevant indicator processes they will likely decide to use these indicators, rather than developing new ones specifically in response to the Strategic Plan, and develop their own storylines. It is important that the Strategic Plan monitoring framework is not prescriptive at national level. But it should give a reasonable level of guidance on what some of the over-

arching monitoring needs are (that is, the key storylines). In this sense, the monitoring framework has an important role in communicating issues and is not simply a mechanism for ensuring scientific rigour for CBD purposes. Equally, the framework should, as far as possible, enable countries to report on progress towards the Strategic Plan for Biodiversity 2011-2020 using their own means. This further supports an "open architecture" approach to the monitoring framework.

17. In many countries there is a continuing need for increased capacities on monitoring biodiversity, ecosystem services and their relationships to sustainable development and human well-being. More systematic sharing of information amongst countries is desirable, including through the clearing-house mechanism and/or through other agencies, in particular development agencies, and through the Biodiversity Indicators Partnership focusing on national indicators †. Additional mechanisms to strengthen capacity are suggested in the report on National indicators, monitoring and reporting for the Strategic Plan for Biodiversity 2011-2020 (UNEP/CBD/ AHTEG-SP-Ind/1/INF/2) include the exchange of personnel, technical support visits by experts, and learning from sectors and institutions with established information gathering and reporting systems.

18. The importance of ownership of the indicators for national use has been emphasized in many discussions. The original idea of a core set of indicators has therefore evolved into a flexible framework. The provision of support and guidance can promote the use of common approaches and methodologies in national monitoring processes. However, it is clear that with the exception of established processes such as the Global Forest Resources Assessment, the information from some national indicators will not be suitable for simple quantitative aggregation. Global reports on some aspects will therefore need to apply multiple methodologies, such as the reliance on statistically valid sub-samples and/or the conversion from numerical to qualitative information. On the other hand, and particularly regarding some potential ecosystem services indicators, some monitoring frameworks in use by other processes (for example the Millennium Development Goals, and data sets maintained by organizations such as the Food and Agriculture Organization of the UN or the UN Statistics Division) are already based on national datasets and are therefore entirely compatible with national interests.

† www.bipnational.net

Annex

Possible indicators for the Strategic Plan for Biodiversity 2011-2020

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
Strategic goal A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society				
Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	Surveys of awareness and attitudes towards biodiversity	"Biodiversity Barometer"		Union for Ethical Biotrade
		Citation of biodiversity in media		Google trends, Meltwater,
		Number of school biodiversity education programmes or officially accredited teaching materials		UNESCO; OECD;
	Public engagement with biodiversity	Number of visits to protected areas, natural-history museums and botanical gardens		CBD Consortium of Scientific Partners; World Association of Zoos and Aquariums; UNESCO; International Council of Museums;
		Public contributions to citizen science observation systems		
		Number of people participating in environmental activities		

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	Biodiversity reflected in policy decisions	Number of countries with biophysical inventories of biodiversity and ecosystem services		
		Number of countries incorporating water related ecosystem services into national planning processes		
		Number of countries with national accounts reflecting the state of biodiversity and ecosystem services and if appropriate stocks and flows of natural capital		
		Number of countries with poverty reduction strategies and national development plans which incorporate biodiversity		United Nations Committee of Experts on Environmental-Economic Accounting; UN statistical division;
		Number of planning processes reflecting biodiversity		
		Number of countries with strategic environmental impact assessment or similar assessment tools		IUCN; The Netherlands Commission for Environmental Assessment; International Association of Impact Assessment;
		Number of biodiversity offset programmes		

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.	Incentives systems reformed	Estimates of the value of harmful incentives	Biodiversity-damaging agricultural policies	WTO; FAO;
			Biodiversity- damaging fisheries policies	FAO;
		Number of positive incentive mechanisms developed and applied		
Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	Ecological footprint and related concepts	Ecological Footprint and Biocapacity		Global Footprint Network;
		Water Footprint		Water Footprint Network;
		Singapore Index on Cities' Biodiversity (CBI)		
		Human Appropriation of Net Primary Production (HANPP)		Institute of Social Ecology, The National Aeronautics and Space Administration;

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
		Proportion of total water resources used		FAO (AQUASTAT);
		Water use intensity by economic activity		FAO (AQUASTAT);
	Proportion of products derived from sustainable sources	Status of species in trade		TRAFFIC; CITES;
		Wild Commodities Index		IUCN - Sustainable Use Specialist Group; UNEP-WCMC;
		Number of ISO 14001 environmental management certifications		
		Biodiversity-friendly certification programmes		Marine Stewardship Council; Forest Stewardship Council;
	Land productivity	Soil biodiversity		UNCCD; FAO;
		Soil fertility		UNCCD; FAO;
		Soil Moisture		UNCCD; FAO;
Strategic goal B. Reduce the direct pressures on biodiversity and promote sustainable use				
Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved	Trends in extent of selected biomes, ecosystems, and habitats	Trends in terrestrial habitats	Trends in extent of forest area	FAO;
			Mountain glacier mass balance	World Glacier Monitoring Service;

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.			Grassland extent and fragmentation	Global Land Cover Network;
			Alpine habitats	Global Observation Research Initiative in Alpine Environments;
		Trends in wetland habitats, coastal and marine areas	Trends in extent of mangroves	FAO; Global Mangrove database and Information System;
			Trends in extent of corals	UNEP-WCMC; Reefs at Risk; World Resources Institute; Global Coral Reef Monitoring Network;
			Trends in extent of oyster reef	The Nature Conservancy;
			Trends in extent of seagrass beds	UNEP-WCMC; Seagrass watch; SeagrassNet;
			Trends in extent of wetlands	Global Wetlands Observation System (GWOS)/Ramsar;

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
			Trends in extent of Deltas	World Deltas Network; Delta Research and Global Observation Network;
			Sea Ice Index	National Snow and Ice Data Center;
	Connectivity / fragmentation of ecosystems	River fragmentation		Nature Conservancy; Umeå University;
		Forest fragmentation		UNEP-WCMC;
	Habitat quality/ degradation	Forest degradation		FAO;
		Land Affected by desertification		
		Land Degradation and Improvement		LADA; ISRIC; FAO;
Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no	Trends in fish stocks	Marine Trophic Index		UBC Fisheries Centre;
		Percentage of fish stocks fully exploited, overexploited or depleted		FAO;
		World capture fisheries production		FAO;
		Catch trends by valuable marine species groups		FAO;
		Annual marine fish catch		FAO;
	Sustainability of marine harvesting practices	Occurrence of destructive fishing practices		Regional Fisheries Management Organisations;

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.		Catch Per Unit Effort		Regional Fisheries Management Organisations;
		% of depleted species with recovery plans		Regional Fisheries Management Organisations; ICATT; Convention on Migratory Species;
		Status of key bycatch species		
Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	Area of forest, agricultural and aquaculture ecosystems under sustainable management	Area of forest under sustainable management: certification		Forest Stewardship Council
		Agricultural ecosystems under sustainable management	Agricultural ecosystems under sustainable management	FAO;
			Crop water productivity	
			Area water-logged by irrigation	
			Area salinzed by irrigation	
			Crop productivity per unit of fertilizer/ pesticide	
		Aquaculture ecosystems under sustainable management		
		Trends in agricultural area certified organic		
		Trends in area used for agriculture, aquaculture and forestry		FAO;
Target 8: By 2020, pollution, including from	Nitrogen deposition	Nitrogen deposition		International Nitrogen Initiative;

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.		Nitrogen Footprint of Production, Import, Export and Consumption activities		N-Print Initiative;
		Nitrogen Balance	Nitrogen Use Efficiency	OECD;
	Water quality	Water Quality Index for Biodiversity		GEMS-Water;
		MDG indicator 7.5- Proportion of total water resources used		
		Nutrient loading in freshwater and marine environments		
		Incidence of hypoxic zones and algal blooms		
	Waste management	MDG indicator 7.9 - proportion of population using an improved sanitation facility		WHO; UNESCO;
		Wastewater Treatment		UNSD;
Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.	Trends in invasive alien species	Trends in invasive alien species		GISP; Birdlife; CIB; IUCN-SSC-ISSG; CABI-IAS;
	Invasive alien species management plans	National management/ action plans		
			Number of invasive alien species laws	
			Number of voluntary codes/programmes in place	FAO;

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
Target 10:By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.	Extent and integrity of vulnerable ecosystems	Mean coral reef condition		
Strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity				
Target 11: By 2020, at least 17 per cent of terrestrial and inland water areas, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, 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	Coverage of protected areas	Coverage of terrestrial protected areas		UNEP-WCMC;
		Proportion of ecoregions protected		UNEP-WCMC;
		Coverage of marine protected areas		UNEP-WCMC;
		Coverage of inland water protected area		UNEP-WCMC;
		Proportion of biomes protected		UNEP-WCMC;
		Proportion of key biodiversity areas protected	Proportion of AZE sites protected	Alliance for Zero Extinction;
			Proportion of important bird areas protected	BirdLife;
		Number of protected areas with connectivity corridors and buffer zones		

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
and seascapes.	Protected Area Management	Number of countries with completed ecological gap analysis		
		Protected Area Management Effectiveness		UNEP-WCMC; University of Queensland;
Target 12:By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	Change in status of threatened species	Red List Index		IUCN; BirdLife; ZSL;
	Trends in abundance and distribution of selected species	Living Planet Index		WWF; ZSL;
		Global Wild Bird Index		BirdLife; Royal Society for the Protection of Birds;
		Arctic Species Trend Index		CAFF;
		Waterbird population status index		BirdLife;
Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as	Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance	Proportion of breeds at risk of extinction		FAO;
		Assessment of genetic resources for food and agriculture - covers crops, livestock and aquatic species		FAO-CGRFA;
	Strategies developed and	Ex situ crop collections		FAO;

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	implemented to minimize genetic erosion and to safeguard genetic diversity	Number of gene bank accessions		
Strategic goal D: Enhance the benefits to all from biodiversity and ecosystem services				
Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	Health & well-being	Health and well-being of communities who depend directly on local ecosystem goods and services	Number of people impacted by human wellbeing and livelihood projects	
			Share of women in wage employment in the non-agricultural sector	
			Number and size of restoration projects related to ecosystem services	
			Number of countries with national laws ensuring access to ecosystem services	
			Coral reef socio-economic parameters	Global Socioeconomic Monitoring Initiative for Coastal Management (SOCMON);
	Biodiversity for food and medicine	Nutritional status of biodiversity		FAO;
		Biodiversity for food & medicine		TRAFFIC;
	Water security	Human and economic losses due to water-related natural disasters		UNISDR;

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
		Climate moisture index		FAO; UNSD; WMO;
		Water related conflicts		World Water Assessment Programme;
Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	Trophic integrity			
	Incidence of human-induced ecosystem failure			
	Carbon storage	Storage of carbon and other GHG (using UNFCCC inventories supplemented by scientific assessments)		
	Vulnerable ecosystems restored		Assessments of vulnerability and adaptive capacity	
		Trend in ecosystem restoration		
Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.	Implementation of the ABS Protocol	Number of countries Party to the Nagoya Protocol		CBD;
		Number of countries which have taken national measures related to access, benefit-sharing and compliance as users and providers of genetic resources		CBD;
		Number of countries which have established national focal points and competent national authorities		

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
			Measures taken by countries to monitor the utilization of genetic resources	
	Effectiveness of ABS policies	Number of countries with national ABS frameworks/legislation		
			Number of technical assistance programmes for strengthening national ABS programmes	
Strategic goal E. Enhance implementation through participatory planning, knowledge management and capacity building				
Target 17:By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.	Trends in NBSAP development and implementation	Number of countries with revised NBSAPs		CBD;
		Number of national assessments of NBSAP implementation		
		Number of sub-national biodiversity strategies and action plans being implemented by local or sub-national authorities		
			Number of stakeholders who participate in the revision and updating process of NBSAPs	
Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for	Status and trends of linguistic diversity and numbers of speakers of indigenous languages	Status & trends of linguistic diversity		UNESCO;
			Change in proportion of speakers of Arctic languages	CAFF;

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.	Status and trends in land-use change and land tenure in the traditional territories of indigenous and local communities			
	Status and trends in the practice of traditional occupations			
Target 19:By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	Scientific and Technical Cooperation & Technology Transfer	Number of cooperation initiatives		
		Number of projects (GEF & Other donors) with STC/TT components		
		Number and effectiveness of capacity building programmes to improve, share transfer and apply knowledge and technologies		
	Knowledge Sharing, Information Exchange, and Human Networking		Number of NBSAPs with a national CHM component	
			Number of countries with significant resource allocation for their national CHM (NFP + team + institutional arrangements)	

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
		Projects (GEF & Other donors) with a national CHM component (number, budget, scope, impact)		
		Number of effective CHM websites		
		Number of effective national clearing house mechanisms with a focus on transferring and applying knowledge and technology		
		Entries in the CHM Knowledge base (number by information type, quality, source, ratings, popularity)		
		Use of the CHM Knowledge Base (number of users, search terms, user comments made on KB entries)		
		Use of the CHM Workspace (Number of users, contributions made)		
		Number of websites with Web 2.0 plug-ins to extract information from the central CHM.		
		Number of maintained species inventories	Growth in GBIF georeferenced species record numbers	GBIF; CSP;

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
			Number of species inventories being created or maintained in country or through collaboration with others, peer-reviewed for accuracy and completeness	
			Number of countries identifying the priority taxonomic groups for which they require inventories	
			Number of countries demonstrating use of species inventories	
Target 20: By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy		Official development assistance		OECD;

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for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.		Aggregated financial flows, in the amount and where relevant percentage, of biodiversity-related funding, per annum, for achieving the Convention's three objectives, in a manner that avoids double counting, both in total and in, inter alia, the following categories: (a) Official Development Assistance; (b)Domestic budgets at all levels; (c)Private sector; (d)Non-governmental organizations, foundations, and academia; (e)International financial institutions; (f)United Nations organizations, funds and programmes; (g)Non-ODA public funding; (h)South-South cooperation initiatives; (i)Technical cooperation;		
		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;		

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
		Amount of domestic financial support, per annum, in respect of those domestic activities which are intended to achieve the objectives of this Convention;		
		Amount of funding provided through the Global Environment Facility and allocated to biodiversity focal area;		GEF;
		Level of CBD and Parties support to other financial institutions that promote replication and scaling-up of relevant successful financial mechanisms and instruments;		
		Number of international financing institutions, United Nations organizations, funds and programmes, and the development agencies that report to the Development Assistance Committee of Organisation for Economic Co-operation and Development (OECD/DAC), with biodiversity and associated ecosystem services as a cross-cutting policy;		OECD-DAC;
		Number of Parties that integrate considerations on biological diversity and its associated ecosystem services in development plans, strategies and budgets;		

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
		Number of South-South cooperation initiatives conducted by developing country Parties and those that may be supported by other Parties and relevant partners, as a complement to necessary North-South cooperation;		
		Amount and number of South-South and North-South technical cooperation and capacity building initiatives that support biodiversity;		
		Number of global initiatives that heighten awareness on the need for resource mobilization for biodiversity;		
		Amount of financial resources from all sources from developed countries to developing countries to contribute to achieving the Convention's objectives;		
		Amount of financial resources from all sources from developed countries to developing countries towards the implementation of the Strategic Plan for Biodiversity 2011-2020;		

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
		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 financial mechanisms, that are consistent and in harmony with the Convention and other international obligations, taking into account national social and economic conditions;		
		Number of initiatives, and respective amounts, supplementary to the financial mechanism established under Article 21, that engage Parties and relevant organizations in new and innovative financial mechanisms, which consider intrinsic values and all other values of biodiversity, in accordance with the objectives of the Convention and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of Their Utilization;		

Aichi Biodiversity Target	Possible headline indicator	Possible primary indicator	Possible sub-indicator	Proposed lead agency/data source
		(I)PES ((International) Payment for Ecosystem Services), including Reducing Emissions from Deforestation and Forest Degradation in Developing Countries + (REDD+), biodiversity banking, etc.) (number of agreements, total budget/transaction value)		OECD; FAO; Centre for International Forestry Research (CIFOR); Ecosystem Marketplace;
		Number of access and benefit sharing initiatives and mechanisms, consistent with the Convention and, when in effect, with the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of Their Utilization, including awareness-raising, that enhance resource mobilization;		
