

# Monitoring the achievement of the Strategic Plan for Biodiversity 2011-2020 (Proposed Indicator Framework)

**Convention on Biological Diversity  
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This paper represents IUCN's position on the Suggested Indicators for The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets (UNEP/CBD/SBSTTA/15/2) and the Provisional Technical Rationale, possible Indicators and suggested Milestones for the Aichi Biodiversity Targets (UNEP/CBD/SBSTTA/15/3). The IUCN position is presented in the form of general comments and a table with specific comments on individual target rationales or indicators.

## Summary

The adoption of The Strategic Plan for Biodiversity 2011-2020 in Nagoya, Japan, represented a major step forward for biodiversity conservation to support life on earth. The sense of urgency which permeated the debate at CBD COP10 in Nagoya needs to be maintained for discussion on indicators to measure progress towards the targets.

IUCN emphasizes that achievement of the Aichi Biodiversity Targets will only be possible if the individual country level targets (set within the flexible framework) 'add up' to the equivalent of the targets set for the global level. A key objective of the indicator framework is to measure progress which allows the extent of achievement of individual targets to be clear.

UNEP/CBD/SBSTTA/15/2: IUCN urges that information on the source data sets used as a basis for indicator development are also included in the framework. This would help facilitate the support for relevant data sets, which would assist Parties with limited resources to determine the most useful datasets for indicator development 6(g).

IUCN recommends that those developing indicators at the national level (NBSAP process) and those involved with global processes are encouraged to share information and lessons learnt on a regular basis.

There is an urgent need to develop operational indicators for the implementation of the Nagoya Protocol on Access and Benefit Sharing. IUCN proposes that, inter alia, an indicator be developed which measures benefits (both monetary and non-monetary) accruing to Parties providing the genetic resources from Parties utilizing the genetic resources.

IUCN commends the use of existing indicators currently being used by other Conventions to monitor progress towards the Aichi Targets to reinforce cohesion.

The fact that measurable targets have been defined for the first time, whose progress in achievement will be reported on, will require a step change in the implementation of the Convention: this critical point should also be mentioned in the Executive Summary.

UNEP/CBD/SBSTTA/15/3: IUCN suggests the inclusion of a recommendation asking the Conference of the Parties to widely disseminate, communicate and translate the technical rationales.

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## The biodiversity conservation imperative

The adoption of The Strategic Plan for Biodiversity 2011-2020 in Nagoya, Japan, represents a major step forward for biodiversity conservation on which the life of Planet Earth ultimately depends.

As was made clear in the third edition of the Global Biodiversity Outlook (GBO-3), an assessment of the state of the world's biodiversity in 2010, the target of reducing the rate of biodiversity loss by 2010 was not met, either internationally or nationally in any part of the world. Moreover, it recalled that the principal drivers of biodiversity loss are in many cases intensifying as a result of human actions: biodiversity and ecosystem services are in decline and are expected to continue to decline.

There are multiple indications of continuing decline in biodiversity in all three of its components – ecosystems, species and genes. The Millennium Ecosystem Assessment (2005) concluded that 60% of ecosystem services worldwide have become degraded in the past 50 years, primarily due to unsustainable use of land, freshwater and ocean resources. Most major habitats have declined in this time and at the species level, *The IUCN Red List of Threatened Species*<sup>TM</sup> tells us that 22% of the world's mammals are threatened and at risk of extinction worldwide, as well as nearly one third of amphibians, one in eight birds, 27% of reef building corals, and 28% of conifers. Species extinction rates are up to 1000 times greater than the average rates in pre-human times, and are increasing.

Against this backdrop the Strategic Plan for Biodiversity was adopted with the purpose of inspiring broad-based action in support of biodiversity conservation over the next decade by all countries and stakeholders. The Aichi targets now clearly articulate what needs to be done to secure the life support systems of the planet.

Urgent action is needed to ensure the resilience of people and nature, and to avoid catastrophic tipping points. Recovering from such dramatic changes in biodiversity is difficult and costly, if not impossible in many instances.

IUCN therefore reiterates the need to maintain the sense of urgency which permeated the debate at CBD COP10 in Nagoya. The level of ambition of the targets must be maintained to ensure the necessary 'step change' in our investment and action towards achieving the targets we have set.

## Suggested indicators for the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets (UNEP/CBD/SBSTTA/15/2)

IUCN emphasizes that achievement of the Aichi Targets will only be possible if the individual country level targets (set within the flexible framework) 'add up' to the equivalent of the targets set for the global level. A key objective of the indicator framework is to measure progress which allows us to see the extent of achievement of individual targets.

Implementing the Strategic Plan requires progress towards achievement of the targets to be monitored regularly to gauge if efforts are succeeding and to allow increased or different actions if necessary. Decision-makers will benefit from the information provided by the development and reporting on indicators to improve policies, planning and action on the ground.

In considering the possible indicators for the Strategic Plan for biodiversity 2011-2020, it is important to remember that indicators are designed to allow measurement of progress in achievement of the targets to support decision-makers and action and are not an end in themselves.

Indicators for the 2011-2020 targets should build on existing indicator work. It should be consistently noted that in addition to being measurable, indicators need to be simple and understandable (and clearly linked to the targets) to facilitate their communication through clear, policy-relevant and actionable messages.

## Suggested Recommendations to SBSTTA:

IUCN agrees that the indicator framework is clearly organized around the policy questions stated in 4(a).

However we urge that information on the source data sets used as a basis for indicator development are also included in the framework. This would help facilitate the support for relevant data sets as is called for in 6(h) and would help make clear to Parties with limited resources the kinds of datasets which would be beneficial for indicator development 6(g). It has been determined, for instance, that *The IUCN Red List of Threatened Species*<sup>TM</sup> is relevant to monitoring progress towards at least 13 of the 20 Aichi Targets.

## **Suggested Recommendations to the Conference of the Parties:**

IUCN agrees (6(c)) that the indicator framework (consisting of a conceptual model, policy questions, headline indicators, indicator sub-topics and prioritized operational indicators) provides a good basis to assess progress in the achievement of the Strategic Plan for Biodiversity 2011-2020 at various scales.

IUCN notes that not all stakeholders developing indicators at the national level as part of NBSAP process are currently involved in global indicator processes. Consideration should be given to 'synchronization' of these separate but related indicator development processes. IUCN recommends that an additional paragraph be included in the recommendations to the Conference of the Parties to call for the Secretariat, Parties, and other relevant institutions and stakeholders to actively promote a process of "mutual feedback and lesson-sharing" to provide for regular communication and updating among different processes, focal points and participants.

IUCN is of the view that the recommendation 6 (e) to the Conference of the Parties should be expanded to request the Executive Secretary to provide regular *detailed* reports on the adequacy (or otherwise) of the indicator framework to meetings of the Subsidiary Body on Scientific, Technical and Technological Advice prior to each of the meetings of the Conference of the Parties until 2020. This is because the mid-term evaluation of the implementation of the Strategic Plan will not be available until 2015.

### **Indicator Framework**

The conceptual model for communicating the different types of indicators is based on four relevant policy questions which are simply and clearly articulated. On (b) 'What are the implications of biodiversity loss? (benefits)' IUCN feels that the words 'loss of' need to be inserted in parentheses prior to the word 'benefits' because the focus is in fact loss of benefits, not benefits *per se* and therefore should read '(loss of benefits)'.

There is an urgent need to develop operational indicators for the implementation of the Nagoya Protocol on Access and Benefit Sharing. For instance, IUCN proposes that, inter alia, an indicator be developed which measures benefits (both monetary and non-monetary) accruing to Parties providing the genetic resources from Parties utilizing the genetic resources. IUCN commends the use of existing indicators currently being used by other Conventions or processes to monitor progress towards the Aichi

Targets. This will reinforce cohesion between the three Rio Conventions as well as between the biodiversity-related conventions who have adopted The Strategic Plan as their own framework for action (UNEP/CBD/COP/10/X/2).

IUCN agrees that countries will use different metrics for indicators depending on available data. However, where possible and feasible, the use of quantitative trend information, ideally based on widely accepted monitoring methods and data standards, should be utilized where possible to facilitate aggregation globally.

### **Further development of indicators**

IUCN agrees strongly with the need to work for continuity in the use of indicators and the need to maintain underlying datasets, many of which already exist, but may need updating and / or expansion to effectively monitor the Aichi Biodiversity Targets. To this end, as stated above, it would be helpful to name the dataset each of the operational indicators is drawing from.

### **Additional indicators**

Noting that the main gaps are indicators for Strategic Goal A (mainstreaming), Strategic Goal D (loss of benefits) and Strategic Goal E (implementation), IUCN recommends that additional cross referencing to other Conventions could help fill gaps. This would also further facilitate cross convention working.

IUCN applauds the proposal to enable the future incorporation of relevant indicators developed by other Multilateral Environmental Agreements (MEAs) into the framework.

In particular we recommend a detailed analysis on the cross-linkages between the MDGs (indicators and targets) and the Strategic Plan for Biodiversity 2011-2020.

### **Options for the establishment of mechanisms to support Parties**

Linking indicator development processes and clearly naming of data sets should help facilitate the increase in capacity needed to mobilize the sharing of expertise within and between different levels of government and other stakeholders' contribution to biodiversity monitoring, data collection and reporting.

IUCN recommends that efforts in strengthening capacities (capacity building workshops) at the national level for the effective implementation of the Strategic Plan for Biodiversity 2011-2020

should not be limited to the early part of this decade but be extended to cover the ten-year span of the Plan.

IUCN wishes to express its willingness to offer technical assistance, experience and our extensive networks to complement and support these efforts. IUCN is also pleased to support the work of the Biodiversity Indicators Partnership.

### **Strengthening of linkages between global and national indicator development and reporting**

The fact that measurable targets have been defined for the first time whose progress in achievement will be reported on will, as is pointed out, require a step change in the mode of implementation of the Convention. This important point should be mentioned in the Executive Summary of the paper.

### **Annex I: Conceptual model**

The words 'loss of' need to be added to the word 'benefits' in the conceptual model given the policy question being addressed.

### **Annex II: Proposed indicator framework**

Specific comments are made on the accompanying table. IUCN urges that the data sets being used for the indicators are included in the table, by updating and drawing on the information from the report prepared by the Group on Earth Observations Biodiversity Observation Network and previous materials made available to AHTEG on indicators and SBSTTA10. IUCN flagship knowledge products are utilized for many of the indicators e.g. *The IUCN Red List of Threatened Species*™ and the World Database on Protected Areas (IUCN and UNEP WCMC) as well as Key Biodiversity Areas and the developing IUCN Red List of Ecosystems. IUCN has recently agreed to further prioritise the development of these knowledge products (with a new business model adopted), part of the rationale being the support they can give to the implementation of the Strategic Plan for Biodiversity. Specific reference to data sources such as these would help facilitate their development, which in turn would further assist Parties.

## **Provisional technical rationale, possible indicators and suggested milestones for the Aichi Targets (UNEP/CBD/SBSTTA/15/3)**

### **Suggested recommendations:**

IUCN strongly commends the SCBD in compiling this paper. It contains extremely important information and therefore IUCN feels that the suggested recommendations are somewhat passive. IUCN suggests the inclusion of a recommendation asking the Conference of the Parties to make use of the technical rationales, to widely disseminate, translate into other languages as they are a good guide to explaining the importance of the targets and their achievement to all life on earth.

IUCN's specific comments on the technical rationales are included with comments on the indicators in the following table. In general IUCN supports the wording of the Headline Indicators, with one suggested amendment to that for Target 11.

Links between the indicators and the indicators adopted for the achievement of the MDGs (e.g. *The IUCN Red List Index*) should be included into the monitoring framework wherever appropriate.

### **How IUCN is supporting the achievement of the Strategic Plan**

In May 2011 IUCN Council agreed that the Strategic Plan for Biodiversity should become a key underpinning framework for IUCN's Programme for the next decade. To this end IUCN has identified 'lead champions' for each of the Aichi Targets to help with work to facilitate their achievement by supporting, communicating and in general explaining their importance. IUCN will support and work with its Members (both Government and NGO) to help achieve the Aichi Targets. IUCN has 'mapped' its current 2009-2012 and new draft Programme (2013-2016) to the Aichi Targets.

The Scientific Authorities of the Biodiversity – related Conventions (CSAB) have asked IUCN to map the Aichi Targets to their conventions which should promote greater cohesion between the Conventions as well as a more streamlined approach to achieving the targets. Other actions are ongoing including the development of an IUCN Explanatory Guide to the Nagoya Protocol on Access and Benefit Sharing.

GOAL/ TARGETS	COMMENTS ON RATIONALE	IUCN COMMENTS
<b>STRATEGIC GOAL A. ADDRESS THE UNDERLYING CAUSES OF BIODIVERSITY LOSS BY MAINSTREAMING BIODIVERSITY ACROSS GOVERNMENT AND SOCIETY</b>		
<b>Target 1:</b> 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.	IUCN suggests adding: Increasing understanding, awareness and appreciation of the diverse values of biodiversity are necessary to create the willingness to bring about the behavioural changes required to conserve and sustainably use biodiversity. Consumers need to be made aware of their role as producers and consumers of biodiversity-related goods.	An Operational indicator is needed to articulate and then measure the steps developed and taken to conserve biodiversity and use it sustainably.
<b>Target 2:</b> 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.	IUCN suggests adding: A key step forward is the incorporation of ecosystem values into national accounting systems.  Biodiversity considerations should also be included in the Climate Change National Adaptation Programmes of Action (NAPA) and Nationally Appropriate Mitigation Action (NAMA) plans to ensure coherence between various scales of national planning and implementation.	
<b>Target 3:</b> 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.	IUCN suggests adding, noting that this rationale would benefit from the use of some additional plain language: Evidence at different national scales shows that reform or removal of environmentally harmful subsidies can reduce environmental pressures, increase economic efficiency and reduce the fiscal burden of governments.  The current continued high level of subsidies requires tax payers to subsidize policies that damage biodiversity and the environment. Subsidies require expenditures by government which are often not cost-effective in terms of achieving the stated outcome of the subsidy programme and which generally result in overconsumption of natural resources and environmental degradation.  By reforming subsidies, Parties can generate fiscal savings which can be reinvested in environmentally friendly policies, resulting in long term economic, social, and environmental benefits in excess of short term investment costs. The	

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	<p>reduction and removal of environmentally harmful policies can result in a double dividend: improved environmental quality as well as a more appropriate use of natural capital (by allowing market prices to more accurately reflect relative scarcities of resources). Subsidy reform will also improve the fiscal performance of governments by reducing deficits or lowering taxes, funding alternative policies that achieve the stated objectives of the subsidy more effectively, and free up financial resources to address more pressing funding needs like biodiversity conservation and sustainable use.</p>	
<p><b>Target 4:</b> 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.</p>	<p>IUCN suggests amending the first sentence to read as follows: Bringing the use of natural resources within safe ecological limits is both an integral part and prerequisite for achieving the Strategic Plan.</p>	<p>The indicators are not measuring production and consumption directly. There is a need for an indicator to measure how the impacts of use of natural resources are being kept within safe ecological limits. Guidance is needed on how to incorporate 'safe ecological limits' into monitoring this target and for sustainable production and consumption in particular.</p>
<p><b>STRATEGIC GOAL B. REDUCE THE DIRECT PRESSURES ON BIODIVERSITY AND PROMOTE SUSTAINABLE USE</b></p>		
<p><b>Target 5:</b> By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.</p>	<p>The rationale would benefit from more focus on coastal and marine habitats.</p>	<p>IUCN is developing The IUCN Red List of Ecosystems which will greatly assist the measurement of the achievement of this target.</p>
<p><b>Target 6:</b> 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 significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.</p>		<p>Assessments of freshwater and marine species for The IUCN Red List of Threatened Species provides increasingly good baseline information for this target and its related indicators - for fishery and by-catch species that have been assessed.</p> <p>There is a need for more information on bycatch at the species level; such information could be used to develop an appropriate indicator.</p>

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<p><b>Target 7:</b> By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.</p>		<p>Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)  IUCN suggests that the above indicator on trends in production areas should be disaggregated with separate indicators for areas under agriculture, areas under aquaculture, and areas under forestry as the approaches and needs for management and conservation differ.  IUCN suggests the following operational indicators:  Trends in area of forest under sustainable management;  Trends in area of agriculture under sustainable management; and  Trends in area of aquaculture under sustainable management.</p>
<p><b>Target 8:</b> By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.</p>		
<p><b>Target 9:</b> 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.</p>	<p>IUCN suggests adding:  Further focus is needed on the management of pathways for the introduction of invasive alien species. Potential pathways for introduction and invasion of alien species are describable and manageable. These include commercial goods, heavy goods vehicles and equipment (such as for road, bridge and other infrastructure development) and passenger transport. Therefore from a cost-benefit perspective, it is a priority to identify and monitor pathways to achieve this target in terrestrial and marine ecosystems. Restoration of habitats also offers means of controlling and/or eradicating invasive alien species, through preventive measures are needed during restoration activities to guard against biological invasion. It is important to name the invasive alien species together with the ecosystem or country where it is invasive to prevent misunderstandings relating to its non-invasive distribution.</p>	
<p><b>Target 10:</b> 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</p>	<p>IUCN suggests adding:  It is critically urgent to support the implementation of policies to reduce pressures from human activities on ecosystems including efforts to address habitat loss, habitat degradation, habitat fragmentation, invasive species,</p>	

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functioning.	pollution, and overharvesting. Coastal ecosystems vulnerable to climate change and ocean acidification are subject to anthropogenic pressures from coastal development, land-based and marine sources of pollution, destructive fishing practices and overharvesting of coastal and marine resources.	
<b>STRATEGIC GOAL C: TO IMPROVE THE STATUS OF BIODIVERSITY BY SAFEGUARDING ECOSYSTEMS, SPECIES AND GENETIC DIVERSITY</b>	<p>IUCN suggests amending the rationale as follows using the part in italics below to replace the sentence beginning ‘These might focus...’</p> <p>Whilst longer term actions to reduce the underlying causes of biodiversity loss are taking effect, immediate actions, such as protected areas, species recovery programmes, land-use planning approaches, the restoration of degraded ecosystems and other targeted conservation interventions can help conserve biodiversity and critical ecosystems.</p> <p><b><i>These must focus on all aspects of biodiversity (the diversity of genes, species and ecosystems) and on culturally-valued species and key ecosystem services</i></b></p> <p>For example, carefully sited protected areas could prevent the extinction of threatened species by protecting their habitats, allowing for future recovery.</p>	
<p><b>Target 11:</b> 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 and seascapes.</p>	<p>IUCN suggests adding:</p> <p>It is important to focus of protection of sites to those important for biodiversity. Reaching the proposed target for safeguarding key biodiversity areas implies an increased focus on representativity and management effectiveness, together with major efforts to expand marine protected areas</p>	<p>IUCN suggests a modification to the Headline Indicator to read: Trends in coverage, <b><i>overlap with key biodiversity areas</i></b>, condition, representativeness and effectiveness of protected areas and other area-based approaches.</p> <p>IUCN also suggest an amendment to one of the Operational Indicators as follows: Trends in the connectivity of protected and other area based approaches, <b><i>including sites of particular importance for biodiversity</i></b> integrated into land- and seascapes (B) (decision VII/30 and VIII/15), to make it consistent with the other operational indicators.</p> <p>IUCN suggests an additional milestone: By 2020, all sites of particular importance for biodiversity are identified.</p> <p>The IUCN WCPA/SSC Joint Task Force on “Biodiversity and Protected Areas” is in the process of consolidating standards for the identification of such</p>

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		key biodiversity areas, in support of this.
<p><b>Target 12:</b> 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.</p>	<p>IUCN suggests adding: Target 12 is an indicator for Millennium Development Goal 7 and its indicator 7.7 "Proportion of species threatened with extinction." The data for this comes <i>from The IUCN Red List of Threatened Species</i>.</p>	
<p><b>Target 13:</b> By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.</p>	<p>IUCN suggests amending the rationale as follows (see parts in italics): The genetic diversity of cultivated plants and farmed or domesticated animals and of wild relatives is in decline as is the genetic diversity of other socio-economically and culturally valuable species, <b><i>including cultured aquatic species. The genetic diversity of most of these species is still largely undocumented and often poorly managed.</i></b> As such the genetic diversity which remains needs to be <i>documented</i>, maintained and strategies need to be developed and implemented to minimize the current erosion of genetic diversity. While substantial progress has been made in safeguarding many <b><i>crop</i></b> varieties and breeds through ex situ storage in genebanks, less progress has been made <b><i>for other socioeconomically and culturally valuable species as well as for all species in situ.</i></b> In-situ conservation, including through continued cultivation on farms, allows for ongoing adaptation to changing conditions (such as climate change) and agricultural practices. The programme of work on agricultural biodiversity as well as the Global Plan of Action for the conservation and sustainable use of plant genetic resources for food and agriculture of the Food and Agriculture Organization of the United Nations (FAO), the FAO Global Plan of Action for animal genetic resources, <b><i>the FAO State of the World's Aquatic Genetic Resources</i></b> and the International Initiative on Biodiversity for Food and Nutrition provide guidance on the types of actions which can be taken to reach this target. <b><i>Measures for monitoring trends in genetic diversity should be able to indicate whether or not genetic erosion (loss of diversity over time) and genetic vulnerability (geographical distribution of genetic diversity) are occurring or not. These measures may include richness (numbers), risk status (abundance), evenness (frequency) and turnover variables of diversity units</i></b></p>	<p>The proposed milestone should include wild relatives: By 2014, programmes for in situ conservation of crop and livestock genetic diversity <i>including their wild relatives</i> are included in national biodiversity strategies and action plans.</p>

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	<p><i>over space and time. Indigenous knowledge of local communities should also be considered as an indicator of diversity of many socio-economically and culturally important plants and animal species.</i></p>	
<p><b>STRATEGIC GOAL D: ENHANCE THE BENEFITS TO ALL FROM BIODIVERSITY AND ECOSYSTEM SERVICES</b></p>		<p>Indicators should directly measure and monitor the benefits from biodiversity. Indicators should measure access to the benefits by different groups.</p>
<p><b>Target 14:</b> 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.</p>	<p>IUCN suggests amending the rationale as follows: Some ecosystems, such as those that provide ecosystem services related to the provision of water, are particularly important in that they provide services that are essential for human wellbeing, in particular for the lives and livelihoods of women and indigenous and local communities, including the poor and vulnerable. Accordingly, priority should be given to safeguarding, or restoring such ecosystems, and to ensuring that <b>men and women</b> have adequate access to these services. Ecosystems which provide essential services and that contribute to local livelihoods should be identified through participatory processes at local, national and global levels and in accordance with Article 10 of the Convention in a gender sensitive way so that <b>data is disaggregated by gender</b>. The resulting information should be integrated into development plans to ensure that these ecosystems receive the necessary protection and investments.</p> <p><b>Information on the services provided by ecosystems and the benefits received by local and indigenous communities should be compiled and reviewed in a gender sensitive way to facilitate progress towards this target.</b></p>	<p>IUCN suggests the following edit to the operational indicator: Trends in benefits that men and women derive from selected ecosystem services (A) <b>analysed in a gender sensitive way ensuring that data is disaggregated by gender.</b></p>
<p><b>Target 15:</b> 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.</p>	<p>IUCN suggests adding: This target also aims to conserve, not only restore, ecosystems and associated habitats that store and sequester carbon to avoid further emissions of carbon. Maintaining and conserving existing habitats is the most cost-effective means to achieve this target. Coastal and wetland habitats are also critical to providing carbon storage and reducing emissions.</p>	<p>IUCN suggests adding an indicator to measure actions to conserve habitats that provide carbon storage and sequestration services</p>
<p><b>Target 16:</b> By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from</p>		<p>IUCN proposes considering the following indicators:  Size of national budgets to implement access and</p>

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<p>their Utilization is in force and operational, consistent with national legislation.</p>		<p>benefit sharing policies and measures;  Number of countries where organizational and operational measures to facilitate national ABS arrangements are in place;  Number of countries where the NBSAP includes ABS policies and/or measures.</p> <p>Ultimately it will be necessary to have indicators measuring:</p> <p>Benefits (both monetary and non-monetary) accruing to Parties providing the genetic resources from Parties utilizing the genetic resources; and</p> <p>Number of mechanisms established within national jurisdictions that direct benefits from ABS measures into support for conservation and sustainable use of natural resources (noting that this would link ABS to the other two objectives of the Convention).</p>
<p><b>STRATEGIC GOAL E. ENHANCE IMPLEMENTATION THROUGH PARTICIPATORY PLANNING, KNOWLEDGE MANAGEMENT AND CAPACITY BUILDING</b></p>		
<p><b>Target 17:</b> 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.</p>		<p>IUCN emphasizes that achievement of the Aichi Targets will only be possible if the individual country level targets (set within the flexible framework) 'add up' to the equivalent of the target set for the global level.</p>
<p><b>Target 18:</b> By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for 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.</p>		<p>IUCN notes the use of the monitoring method known as the Vitality Index of Traditional Environmental Knowledge (VITEK). Further development and piloting of this method with indigenous and local communities could help to measure retention and loss of traditional environmental knowledge. This method is one of several potential tools that can help to measure the loss and retention of traditional environmental knowledge and to establish correlations that will help understand the underlying causes of loss of biodiversity-related traditional knowledge and practices for biodiversity and therefore help to identify potential responses to any loss.</p> <p>The indicators for this target should take into account relevant discussions taking place in the Working</p>

GOAL/ TARGETS	COMMENTS ON RATIONALE	IUCN COMMENTS
		Group on article 8(j) and related provisions.
<p><b>Target 19:</b> 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.</p>		<p>IUCN highlights the opportunity that the development of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) provides to support the implementation of Target 19. IPBES's role should be to provide relevant decision making processes with independent, authoritative, internationally peer-reviewed scientific information on changes in biodiversity and ecosystem services, the implications of these changes for human well-being, and possible response measures at multiple scales. In that sense, IPBES should be established with the view to it becoming the standard international source of policy-relevant scientific information on knowledge relating to biodiversity and ecosystems services, and therefore meet the needs of decision-makers in the environmental sectors, and at the environment-development nexus.</p>
<p><b>Target 20:</b> 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 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.</p>	<p>IUCN suggests adding:</p> <p>Resources in addition to Overseas Development Assistance (ODA) should be sought for the achievement of target 20 and for the achievement of the Strategic Plan for Biodiversity.</p> <p>Other sources or resources include private sector, conservation finance tools and initiatives, and the re-direction of investments in perverse incentives to positive incentives.</p>	<p>Some Parties and stakeholders are concerned that financial sources other than ODA may reduce the amount of ODA made available through existing developed country commitments to provide overseas development assistance. Developed country ODA assistance commitments through the GEF and other sources to developing countries should be maintained, if not increased.</p> <p>In addition the private sector possesses enormous potential as a provider of financial capital for pro-biodiversity investments where the business case for biodiversity conservation can be convincingly made. Relatively new, and less widely known, innovative conservation finance mechanisms, such as payment of ecosystem services, can create positive incentives for local stewardship of globally valuable biodiversity and ecosystem services, and that these mechanisms can have positive development and food security implications for poverty reduction efforts in developing countries.</p>