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### REVISION AND UPDATING OF THE STRATEGIC PLAN: POSSIBLE OUTLINE AND ELEMENTS OF THE NEW STRATEGIC PLAN

*Note by the Executive Secretary* 

#### INTRODUCTION AND BACKGROUND

- 1. At its tenth meeting in Nagoya, Japan, in October 2010, the Conference of the Parties (COP) is expected to adopt a revised and updated Strategic Plan for the Convention including new biodiversity target(s) for the post-2010 period. The process for revising and updating the Strategic Plan was set out in decision IX/9. In line with that decision, the Secretariat of the Convention on Biological Diversity has invited Parties and stakeholders to submit views on the updating and revision of the Strategic Plan. In addition an electronic forum and a number of informal consultations have been organized by partners.
- 2. An analysis and synthesis of views, drawing upon submissions from Parties and observers, as well as informal consultations, was prepared by the Secretariat and made available in June 2009, through a Notification (UNEP/CBD/SP/PREP/1, available at www.cbd.int/sp/sp2010+). This document is now being updated to reflect the further submissions received, as well as views expressed in recent informal consultations. It will be available in December, 2009 (as document UNEP/CBD/SP/PREP/1/Rev1) and will contain a complete list of consultations held, as well as those planned. In addition, all the submissions received and other relevant material will be available on the Convention's website (www.cbd.int/sp/sp2010+).
- 3. The present Note has been prepared by the Executive Secretary to consider a possible structure and some possible elements of the new Strategic Plan, drawing upon the submissions and inputs received, including feedback on an earlier draft from members of the COP and SBSTTA Bureaux. The purpose of this note is to provide background to assist the consultations at forthcoming meetings, and to stimulate further submissions from Parties and observers. It is provided to stimulate further discussions and is not intended to prejudge the outcome of these discussions.
- 4. Further consultations are planned, including:
- Regional or subregional consultations for Mesoamerica and the Caribbean (7-10 December, Panama) Africa (11-12 December, Cairo), Asia (15-18 December, Tokyo) and the Arab States (10-11 January, Cairo) to be convened by the Secretariat, UNEP and IUCN-Countdown 2010 with the support of Japan and others;

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- An expert workshop co-hosted by Brazil and the United Kingdom in London from 18 to 20 January 2010
- The European Union meeting on "Post 2010 Biodiversity Vision and Target", Madrid, Spain, from 26-27 January, 2010.
  - The sixth UN/Norway Trondheim Conference on Biodiversity, from 1 to 5 February, 2010.
- 5. An updated list of consultations is being maintained on the Convention's website.
- 6. In line with Decision IX/9, the formal draft of the updated and revised Strategic Plan will be prepared by the Secretariat and made available in February 2010. The February draft will be the basis for consideration of the new Strategic Plan and related targets and indicators by the fourteenth meeting of SBSTTA and the third meeting of the Working Group on Review of Implementation to be held in Nairobi in May 2010.
- 7. The elements in this Note build upon the existing Strategic Plan (2002-10) adopted in Decision VI/26, while attempting to improve on the previous plan in two key areas:
- Providing a mission and targets for 2020 that are both achievable and more measureable, have a clearer logic linking the vision, mission and targets, and are consistent with the available scientific evidence, including a scientific review of biodiversity projections prepared for the third edition of the Global Biodiversity Outlook;
- Providing a more effective framework for national implementation of the three objectives of the Convention including through national targets, with appropriate support mechanisms and a more robust approach to monitoring and review, at national and global levels, including an enhanced role for the Conference of the Parties in reviewing implementation and learning from experience;
- 8. As noted above, this document aims to facilitate further consultations on the strategic plan, and, for this reason, it contains explanatory text that could be omitted from the final version allowing for a more concise final version of the Strategic Plan. In addition, the *technical rational* given for each target could be transferred to an annex. It is envisaged that the final draft Strategic Plan, to be distributed in February 2010, would be of the order of 5-10 pages.

### POSSIBLE OUTLINE AND ELEMENTS OF THE NEW STRATEGIC PLAN

The updated and revised Plan might be given a title which could also serve as a "slogan" for promoting it. One suggestion is as follows:

### "Sustaining Life on Earth": the Strategic Plan for the Convention on Biological Diversity 2011 - 2020

The purpose of the Strategic Plan 2010-2020 is to promote more effective implementation of the Convention through a strategic approach comprising a shared vision, mission and targets that will inspire broad-based action by all Parties and stakeholders. It will also provide a framework for the establishment of national targets and for enhancing coherence in the implementation of the provisions of the Convention and the decisions of the Conference of the Parties, including the programmes of work. Further, it will serve as a communication tool to attract the attention of all stakeholders and facilitate the mainstreaming of biodiversity into broader global and national agendas. A separate Strategic Plan is being developed for the Biosafety Protocol that would complement this one.

The text of the Convention itself, its articles, and especially its three objectives, provide the fundamental basis for the Strategic Plan.

The Plan could comprise the following components:

- I. The Issues;
- II. Vision;
- III. Mission;
- IV. Strategic Goals and Targets for 2020;
- V. Implementation, monitoring, review and evaluation; and
- VI. Support Mechanisms.

The Strategic Plan will also be reflected in the Multi-Year Programme of Work of the Conference of the Parties (MYPOW) to be adopted at COP-10.

A Framework relating how the various targets, indicators and implementation measures relate to each other is provided in the annex.

#### I. The Issues

This section of the Strategic Plan sets out the context for the new Strategic Plan, including issues related to the status, trends and scenarios for biodiversity and the consequences for human well-being, experience with implementing the Convention, and present challenges and opportunities.

Biological diversity underpins ecosystem functioning and the provision of ecosystem services essential for human well-being.

The Convention on Biological Diversity aims to achieve three objectives: the conservation of biological diversity; the sustainable use of its components; and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. In the Convention's first Strategic Plan, adopted in 2002, the Parties committed themselves "to a more effective and coherent implementation of the three objectives of the Convention, to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth." This 2010 Biodiversity target was subsequently endorsed by all governments at the World Summit on Sustainable Development and integrated into the framework of the Millennium Development Goals.

The 2010 Biodiversity Target has inspired action at many levels. Protected areas have been expanded in number and area. Environmental impact assessment is more widely applied. In some regions, deforestation rates have been greatly reduced. Some 167 countries now have national biodiversity strategies and action plans. There is a wealth of experience in implementing the Convention that could be built upon to support more effective implementation by a larger number of Parties. At the international level, financial resources have been mobilized and progress has been made in developing mechanisms for research, monitoring and scientific assessment.

The third edition of the Global Biodiversity Outlook (GBO-3), drawing upon national reports, indicators, and research studies, will synthesize these successes, assess progress towards the 2010 target, and provide scenarios for the future of biodiversity.

It is clear that the 2010 Biodiversity Target will not be achieved, at least not at the global level. The diversity of genes, species and ecosystems continues to decline, as the pressures on biodiversity remain stable or increase in intensity as a result of human actions.

The actions taken to implement the Convention have not been on a sufficient scale to address the pressures on biodiversity. Moreover there has been insufficient integration of biodiversity issues into broader policies, strategies and programmes, and therefore the underlying drivers of biodiversity loss have not been addressed significantly. While there is now greater understanding of the linkages between biodiversity, ecosystem services and human well-being, the value of biodiversity is still not reflected in broader policies and incentive structures. Most Parties identify lack of financial, human and technical resources as limiting implementation of the Convention, and technology transfer under the Convention has been very limited.

Scientific consensus projects continuing loss of habitats and high rates of extinctions throughout this century, if current trends persist, with the risk of drastic consequences to human societies as several thresholds or "tipping points" are crossed. Unless urgent action is taken to reverse current trends, a wide range of services derived from ecosystems, underpinned by biodiversity, could rapidly be lost. While the harshest impacts will fall on the poor, undermining efforts to achieve the Millennium Development Goals, no-one will be immune from the impacts of the loss of biodiversity.

On the other hand, scenario analysis reveals a wide range of options for addressing the crisis. Determined action to value and protect biodiversity diversity will benefit people in many ways, including through better health, greater food security and less poverty. It will also help to slow climate change by enabling ecosystems to store and absorb more carbon; and it will help people adapt to climate change by adding resilience to ecosystems and making them less vulnerable. Better protection of biodiversity is thus a prudent and cost-effective investment in risk reduction for the global community.

Achieving this positive outcome requires actions at multiple entry points:

- (a) Initiating action to address the underlying causes of biodiversity loss, including consumption patterns, through the mainstreaming of biodiversity throughout government and society, through communication, education and awareness, appropriate incentive measures, and institutional change.
- (b) Taking action now to decrease the pressures on biodiversity, by decoupling the indirect and direct drivers of biodiversity loss by using approaches such as spatial planning and efficiency measures and by rethinking "safe" levels of resource exploitation. Engagement of the agricultural, forest, fisheries, tourism, energy and other sectors will be key to success. Where multiple pressures are threatening vital ecosystems and their services, urgent action is needed to decrease those pressures most amenable to short-term relief, such as over-exploitation or pollution. This may prevent more intractable pressures, in particular climate change, from pushing the system "over the edge" to a degraded state.
- (c) Continuing direct action to safeguard and, and where necessary, restore biodiversity and ecosystem services. Whilst longer term actions to reduce the underlying causes of biodiversity are taking

effect, immediate action can help conserve biodiversity and critical ecosystems, by means of protected areas, habitat restoration, species recovery programmes and other targeted conservation interventions. Maintenance and restoration of ecosystems generally provide cost-effective ways to address climate change. Therefore, while climate change is an additional major threat to biodiversity, addressing this threat opens up a number of opportunities for biodiversity conservation and sustainable use.

Achieving a positive outcome will also require an improved enabling environment at global and national levels. Enhanced support mechanisms are required for: capacity development; the generation, use and sharing of knowledge; and to ensure access to the necessary financial and other resources. National planning processes need to become more effective in mainstreaming biodiversity and in highlighting its relevance for social and economic agendas. Finally, the Convention bodies need to become more effective in reviewing implementation and providing support and guidance to Parties.

### II. Vision:

The vision statement sets out the desired state or the ultimate goals to be reached beyond the 2020 period of this Strategic Plan. In their submissions and inputs, many Parties and other contributors have suggested that the Vision constitute a long-term target for 2050. While different submissions offer different wordings for the Vision, most share the following elements:

- Biodiversity loss is halted (e.g. no anthropogenic extinctions);
- Biodiversity and ecosystems are conserved, restored and managed sustainably, contributing to "a healthy planet" together with parallel action on climate change and desertification (i.e. synergy among the Rio Conventions);
- Biodiversity and ecosystem services are contributing to human well-being, including poverty
  eradication and socio-economic development (i.e. they have helped to achieve the Millennium
  Development Goals);
- Benefits from biodiversity and ecosystem services are equitably shared;
- The benefits arising from the utilization of genetic resources are shared in a fair and equitable manner:
- Governments, civil society, indigenous and local communities and the private sector are working together towards long term sustainability employing both formal science and traditional knowledge, innovations and practices;
- Economic and social drivers are held within ecological limits (e.g. an overall ecological footprint of one planet, equitably applied);
- Harmony between humans and the rest of biodiversity; and
- Safeguarding biodiversity is universally recognized as being central to the achievement of human prosperity and security.

These elements may be summed up in a phrase such as the following, supported by the elements listed above:

"Living in harmony with nature - Biodiversity is conserved, restored and wisely used, sustaining a healthy planet and delivering benefits essential for all people".

### III. The 2020 Mission of the Strategic Plan:

Most submissions propose 2020 as a date for the new biodiversity target(s), with additional interim milestones including 2015.

Possible elements of the mission statement, arising from submissions, could include:

- To reduce or halt biodiversity loss;
- To restore biodiversity and ecosystem services;
- To prevent irreversible changes (including extinctions, ecosystem collapse associated with "tipping points");
- To avoid loss of biodiversity that has dangerous implications for human well-being;
- To share equitably the benefits from biodiversity;
- To reduce the drivers of biodiversity loss;
- To keep economic activities within safe ecological limits (the boundaries of healthy ecosystems);
- To contribute to human well-being and poverty reduction;
- To enhance resilience and adaptation to climate change; and
- To overcome the "implementation deficit" by ensuring that all countries have the means to achieve the mission statement.

It is proposed that in establishing the new mission and/or target(s), Parties be guided by what needs to be done under the Convention by 2020 in order to:

- (a) Put the world onto a path to achieve the agreed Vision by 2050:
- (b) To avoid loss of biodiversity that would be irreversible, costly to reverse or have particularly dangerous implications for human well-being:
- (c) To ensure the continued provision of ecosystem services and respond to opportunities for biodiversity and ecosystem management to contribute to climate change mitigation and adaptation; and
  - (d) To provide the necessary enabling conditions to implement the Convention.

The Mission and Targets should be well-founded in science and in the experience of implementing the Convention. Broadly, they should recognize that while it is not realistic (or even possible) to fully halt biodiversity loss by 2020, or to fully resolve all the anthropogenic causes of biodiversity loss by that date, neither is it conceivable to allow biodiversity loss to continue at the present rate or to continue indefinitely, without undermining human development and survival.

Thus, an overall mission statement could be as follows:

"To have taken by 2020 the necessary urgent and concerted actions to reduce the threats facing biodiversity so as to stop biodiversity loss, and have started to restore ecosystems, thus ensuring the continued provision of ecosystem services, while equitably sharing the benefits, avoiding change that is irreversible or has dangerous consequences for human well-being, and contributing to the achievement of the Millennium Development Goals. To ensure that all countries have the means to achieve this." 1

### Other options include:

"By 2020, to halt biodiversity loss, and restore it to ecologically sound levels, and enhance the capacity of ecosystems to provide services, while equitably sharing the benefits contributing to human wellbeing and poverty reduction. To ensure that all countries have the means to achieve this."

<sup>1</sup> If it is also decided to include a 2015 milestone, a possible text could be:

<sup>&</sup>quot;To have initiated by 2015 the necessary urgent and concerted actions required to address the threats facing biodiversity with a view to halting biodiversity loss, and to restoring ecosystems, thus ensuring the continued provision of ecosystem services and avoiding dangerous or irreversible environmental change or change that has dangerous consequences for human well-being, as well as contributing to the achievement of the Millennium Development Goals."

"The 2020 target to sustain life on earth: Safeguard and restore biodiversity, and reduce the threats it faces, staying within ecological limits, in order to improve its status, prevent extinctions and enhance ecosystem services, while equitably sharing the benefits, thus contributing to human well-being and poverty eradication. To ensure that all countries have the means to achieve this."

The mission statement would complement the three Objectives of the Convention, a longer-term "Vision" and be accompanied by a set of 2020 "SMART" Targets

### IV. Strategic Goals and the 2020 Headline Targets

Target(s) should be "SMART" i.e. strategic, measurable, ambitious, realistic and time-bound. Given the difficulty of identifying a single inspiring target that is also "SMART", many Parties and stakeholders suggest that multiple "SMART" targets might complement a more general target or mission statement. Even multiple targets, however, cannot be comprehensive and at the same time "SMART". In this respect, it is important to remember that the Strategic Plan complements rather than replaces the Convention and its programmes of work.

The Mission Statement could therefore be accompanied by a set of 2020 headline Targets. The following examples are provided to stimulate further discussion. Where possible, targets that meet the "SMART" criteria are suggested. In some cases, however, SMART targets are still to be identified.

Deciding on the appropriate level of "ambition" and "realism" is often a challenge. The SMART targets proposed below have been developed with the following considerations in mind:

- It must be physically possible to achieve the targets. In addition, the targets should be consistent with other agreed major globally agreed objectives such as those embodied in the Millennium Development Goals (addressing reduction of hunger and poverty and promotion of health) as well those addressing climate change.
- The targets must be sufficiently ambitious to put us onto a path to achieve the agreed long term vision, and in particular, to avoid passing "tipping points" that would have dangerous implications for human well-being. They should also ensure the continued provision of ecosystem services and respond to opportunities to contribute to climate change mitigation and adaptation. In addition they must provide the means to achieve the other targets.

These two considerations provide boundaries within which the quantitative element of each SMART target may be set. These will be refined as more information becomes available, and the technical rationales will be further developed. In addition, milestones may be developed, for example for 2015.

The "SMART" targets are grouped within broader strategic goals reflecting the different levels of action required as outlined in the issues section above.

These Targets would comprise both:

- (a) aspirations for achievement at the global level, and
- (b) a flexible framework for national targets.

However, not all countries would necessarily need to develop a national target for each and every global target. In some cases, the target may already be achieved for some countries, in others it may not be relevant. Parties would be invited to set their own targets within this flexible framework, taking into account national needs and priorities, while also bearing in mind national contributions to the global aspirations established by the Targets.

<sup>2</sup> Recall that the Convention includes the following preamblar statement: "Recognizing that economic and social development and poverty eradication are the first and overriding priorities of developing countries."

Annex I provides a tentative **framework of targets and indicators**. This would replace framework contained in Decision VII/30. For the purposes of illustration, the table includes example of existing national targets that correspond to the proposed global SMART targets, s examples of the way such targets may be applied at the national level. A full list of national targets as provided in the fourth national reports will be made available at <a href="https://www.cbd.int/sp/sp2010">www.cbd.int/sp/sp2010</a>+.

## Strategic Goal A. Initiate strategic actions to address the indirect drivers of biodiversity loss through communication, education and public awareness, the realignment of economic incentives and the mainstreaming of biodiversity across government and society:

Introduction: While drivers such as population increase or patterns of consumption (for example, of meat, energy, water and raw materials) are not susceptible to rapid reversal, ultimately total consumption must be brought within ecological limits if the 2050 Vision is to be achieved. Therefore, strategic actions should be initiated now to address, over a longer term, these underlying causes of biodiversity loss. This requires policy coherence and the integration of biodiversity into all national development policies and strategies and economic sectors at all levels of government. Key strategic approaches to achieve this include communication, education and public awareness, appropriate pricing and incentives, and the broader use of tools such as strategic environmental assessment. Stakeholders across all sectors of government, society and the economy, will need to be engaged as partners to implement these actions. Consumers and citizens can also be mobilized to contribute to biodiversity conservation and sustainable use and to reduce their ecological footprints. At the international level action to implement the convention could be strengthened by synergies among intergovernmental bodies.

### Target 1. By 2020, Everyone is aware of the value of biodiversity and what steps they can take to protect it.

Technical rationale: Understanding, awareness and appreciation of the value of biodiversity is necessary to underpin the ability and willingness to take the necessary steps to address the drivers of biodiversity loss, both in terms of individual action (eg to reduce waste or consumption) and in terms of creating the "political will" for governments to act. Learning occurs in formal contexts of learning, such as schools and universities, as well as informal contexts, such as in museums and parks, and through films, television and literature. Where possible, awareness and learning about biodiversity should be linked to and mainstreamed into the principles and messages of education for sustainable development. Progress could be monitored through surveys of awareness and attitudes such as the *eurobarometer* survey conducted in 2007, which provides a baseline for the European region. Other indicators could include the number of visits to museums and parks, volunteer participation in relevant activities, number of school biodiversity education programmes or materials etc.

Target 2. By 2020, The value of biodiversity, and the opportunities derived from its conservation and sustainable use, and the fair and equitable sharing of benefits arising from the use of its genetic resources, are recognized and reflected by all countries in their national development and poverty reduction policies and strategies, national accounts, economic sectors and spatial planning processes at all levels of government, and by the private sector, applying the ecosystem approach.

Technical rationale: This is a target for the "mainstreaming" of biodiversity. It also includes a need to assess the value of biodiversity, and associated ecosystem services, including those arising from the use of genetic resources and traditional knowledge, including the economic value. The target will be achieved through dialogue among sectors and stakeholders, supported by planning tools such as strategic

 $\underline{3}$  This paragraph and similar ones for each 2020 target provide a (preliminary) summary of the technical rationale of each target (i.e. The necessity and importance of the target, feasibility and means to achieve it, indicators, baseline and relationship with other targets.) Fuller information will be compiled in a supporting information.

environmental assessment and economic tools such as incentive measures. Indicators might include: the number of key documents (national growth, development and poverty eradication plans) that integrate biodiversity; the presence of strategic environmental impact assessment or similar assessment tools, and their application at multiple levels of government; the presence of fiscal or accounting measures that incorporate biodiversity etc. Baseline information for 2010 could be obtained through desk studies.

### Target 3. By 2020, Subsidies harmful to biodiversity are eliminated.

Technical rationale: Substantial and widespread changes to economic incentives are required to ensure sustainability. Ending subsidies harmful to biodiversity is a critical and necessary first step that would also generate net socio-economic benefits. Negotiations under the Doha Trade Round on subsidies in fisheries and agriculture have the potential to generate high synergies with this target, and are therefore a key vehicle for achieving the target. In addition, countries or regional groups may take their own initiatives to phase out and/or reform subsidies. The recent decision of the G20 to phase out energy subsidies by 2020 could be taken as an example, and would also contribute to the target. Estimates of the value of harmful subsidies, using criteria developed by WTO and OECD, would be an indicator. Baseline data is already published.

## Target 4. By 2020, Governments and stakeholders at all levels have formulated and begun to implement sustainability plans to increase efficiency, reduce waste and maintain the use of resources within ecological limits;

Technical rationale: Bringing economic and social drivers within ecological limits is an integral part of the Vision, so, steps towards this must be made by 2020. Reducing total demand, and increasing efficiency can both contribute to the ultimate goal which can be pursued through government regulations or incentives, education, and social and corporate responsibility. Current initiatives aimed at reducing excessive use of fossil fuels, need to be replicated for other natural resources. Early action would involve each consumption-related sector developing and implementing plans for this purpose. Initially process indicators, such as the establishment of such plans, with clear and measurable targets, would be the main indicators. Outcome indicators would be total demand for natural resources. The ecological footprint provides one methodology, and baseline data for this is available.

## Strategic Goal B. Address the direct drivers of biodiversity loss, reducing pressures on biodiversity from habitat change, overexploitation, pollution, invasive species and climate change.:

Introduction: Given rising populations and income, the demand for biological resources is increasing, and without action this will translate into increased pressures on biodiversity. Thus, efforts are needed to decouple the indirect and direct drivers of biodiversity loss by means of technical improvements and more efficient use of land, sea and other resources, through better spatial planning. This way, the inevitable tradeoffs between production on the one hand and maintaining ecosystem functions and resilience on the other can be minimized, easing the process of securing the necessary political support and engagement of stakeholders and helping to meet legitimate human development objectives. Where multiple pressures are combining to weaken ecosystem structure, functioning and resilience, decisive action to reduce those pressures most amenable to rapid intervention should be prioritized, while longer-term efforts continue to moderate more intractable pressures, such as climate change and ocean acidification. Targeting drivers and pressures over which we have more immediate control will help to create the resilience needed to prevent some dangerous "tipping points" from being reached. Stakeholders in each of the economic sectors will need to be engaged. For example, it is necessary to engage with the agriculture, forestry and fishing communities to promote sustainable use. Government ministries can take a leading role in their sectors and city and other local authorities can play a decisive role, especially in terms of local land use planning.

### Target 5. By 2020, Deforestation and forest degradation, and the loss and degradation of other natural habitats is halved.

Technical rationale: Ultimately, there must be limits to the conversion of natural habitats. This is particularly the case for some ecosystems, where continued loss risks passing "tipping points" that could lead to large scale negative effects on human well-being. While demographic, economic and social pressures are likely to mean continued land use change beyond 2020, the rate of change needs to be substantially reduced, and this could be achieved through improvements in production efficiency and land use planning combined with recognition of the economic value of ecosystem services provided by natural habitats. In particular, the value of carbon sequestration by forests and wetlands, and other ecosystem services (such as denitrification by wetlands) provide contemporary incentives for reducing the net loss of these habitats, and even beginning to reverse the trend. The target refers to gross deforestation, and should be regarded as a step towards halting deforestation and loss of other natural habitats. Emphasis should be on preventing loss of primary forests and other high-biodiversity value habitats. Trends in extent of selected biomes, ecosystems and habitats is an appropriate indicator. Reasonably good data are available for forests and some other habitats. For others, improvements in data would be needed.

## Target 6. By 2020, Pressure on marine ecosystems through overfishing halved, and destructive fishing practices are eliminated.

Technical rationale: Overexploitation is the main pressure on marine fisheries globally. A reduction in fishing intensity is needed. Models suggest that, on average, modest (~10%) reductions in catch could half pressure on marine ecosystems while also contributing to the long term profitability and sustainability of fishing. (Where fisheries are already managed sustainably, no further reductions in fishing pressure may be needed, while in some areas greater reductions might be warranted.) Such a reduction in fishing pressure could substantially diminish the likelihood of fishery collapses. The specific target should be regarded as a step towards ensuring that all fisheries and harvest of living wild resources are sustainable. Indicators would include, distribution and abundance of fish species, proportion of collapsed species, fisheries catch, catch per unit effort, trophic level, and proportion of stocks overexploited, for which good baseline data is available.

## Target 7. By 2020, All areas under agriculture, aquaculture and forestry are managed according to sustainability criteria;

Technical rationale: The consumption of water and use of pesticides and excess fertilizers, and the use of uniform monocultures, among other factors, have major negative impacts on biodiversity inside and outside of agricultural, forest and coastal ecosystems. The increasing demand for food, fibre and fuel, will lead to increasing losses of biodiversity and ecosystem services if issues related to sustainable management are not addressed. Criteria for sustainable forest management have been adopted by the forest sector and there are many efforts by governments, NGOs and the private sector to promote "Good Agricultural Practices". In addition, customary use of biodiversity by indigenous and local communities can often offer lessons of wider applicability. These are therefore useful tools for this goal. An interim goal for 2015 could be to double the area of agriculture and forestry managed according to sustainability criteria. While, as yet, there are no universally agreed sustainability criteria, each sector and many initiatives have developed their own criteria which could be used pending the development of a more common approach.

## Target 8. By 2020, Pollution from excess nutrients (nitrogen and phosphorus) has been brought below critical ecosystem loads.

Technical rationale: Nutrient loading, primarily of nitrogen and phosphorous is a major and increasing cause of biodiversity loss and ecosystem dysfunction, particularly in wetland, coastal and dryland areas, including eutrophication and hypoxic "dead zones" associated with sever losses of valuable ecosystem

services. Humans have already more than doubled the amount of "reactive nitrogen" in the biosphere, and business as usual trends would suggest a further increase of the same magnitude by 2050. Efficiency in fertilizer use and better management of animal wastes, coupled with the strategic use of wetlands, can be used to bring nutrient levels below levels that are critical for ecosystem functioning, while also allowing for increased fertilizer use in areas where it is necessary to meet soil fertility and food security needs. The EU has successfully promoted regulations to this end, and the evidence suggests that similar approaches are feasible in other developed and emerging economies. Indicators would include total nutrient use; aerial deposition; nutrient loading in freshwater and marine environments, and the incidence of hypoxic zones and algal blooms. (Cross references to complementary targets in the Rotterdam and Stockholm Conventions, and to other agreements limiting chemical pollutants, could be included.)

## Target 9. By 2020, The introduction and establishment of invasive species has been prevented and emerging infectious diseases of wildlife controlled. (SMART target to be developed at global and national levels).

Technical rationale: Invasive alien species are a major threat to biodiversity and ecosystem services. Increasing trade and travel means the threat is likely to increase unless additional action is taken. Pathways can be addressed through improved border controls and quarantine, including through better coordination with national and regional bodies responsible for plant and animal health. While well-developed globally-applicable indicators are lacking, many countries do have data on invasions and pest outbreaks, and, therefore national-level targets might be developed. Emerging infectious diseases that may be linked to climate change and breakdown in ecosystem integrity are increasingly impacting on biodiversity. Amphibians are particularly affected.

## Target 10. By 2020, The impacts of climate change and of ocean acidification on ecosystems have been reduced and responses to climate change that are not detrimental to biodiversity have been agreed. (SMART target to be developed at global and national levels).

Technical rationale: Increased atmospheric CO2 leads to ocean acidification, in addition to the warming-induced aspects of climate change that this and other greenhouse gases cause. Both pressures need to be considered in elaborating response options under the UNFCCC. For example, to safeguard coral reefs and carbonate- and aragonite-based biota that underpin marine food webs, marine systems need to be maintained below certain pH thresholds. However, given ecological and policy inertias, it will also be important to address other pressures on the most vulnerable ecosystems to increase resilience to climate change and ocean acidification. In addition measures are needed to ensure that climate change mitigation and adaptation responses are not detrimental to biodiversity. (Cross-reference to the climate change mitigation targets agreed under the UNFCCC could be included)

### <u>Strategic Goal C. Promote direct action to safeguard and restore biodiversity and related ecosystem</u> services, contributing to climate change mitigation and adaptation.

Introduction: Whilst longer term actions to reduce the underlying causes of biodiversity are taking effect, immediate action can help conserve biodiversity and critical ecosystems, by means of protected areas, species recovery programmes and other targeted conservation interventions. These might focus on culturally-valued species and key ecosystem services, particularly those of importance to the poor, as well as threatened species. For example carefully sited protected areas could prevent the extinction of endangered species by protecting their habitats, allowing future recovery. Biodiversity and ecosystems can play an important role in combating climate change and its impacts. Efforts should focus on maintaining, and wherever possible, restoring terrestrial, freshwater and marine ecosystems to ensure the provision of valuable ecosystem services, and, in particular, to contribute to climate change mitigation and adaptation.

## Target 11. By 2020, At least 15% of land and sea areas, including the most critical terrestrial, freshwater and marine habitats, have been protected through effectively managed protected areas and/or other means, and integrated into the wider land- and seascape.

Technical rationale: Well managed protected areas are a proven method of safeguarding both habitats and populations of species and deliver important ecosystem services. Currently some 13% of terrestrial areas, and 5% of coastal areas are protected, while very little of the open oceans are protected. The current target of 10% protection for each ecological region has been achieved in some 55% of all terrestrial eco-regions, and it is proposed that this target be retained for the remaining eco-regions. Reaching the proposed target, implies a modest increase in terrestrial protected areas, with a focus on representivity and management effectiveness, together with major efforts to expand marine protected areas. Particular emphasis is needed to protect critical ecosystems such as tropical coral reefs, sea-grass beds, deepwater cold coral reefs, seamounts, tropical forests, peat lands, freshwater and coastal wetlands. Protected areas should be established and managed in close collaboration with indigenous and local communities. Protected areas should be integrated into the wider land- and seascape, and relevant sectors, by applying the ecosystem approach and taking into account ecological connectivity and the concept of ecological networks, including connectivity for migratory species (through, for example, "fly-ways" for migratory birds). The CBD programme of work on protected areas provides further guidance and information on baselines and indicators. Protected areas could be complemented by limits to processes and activities harmful to biodiversity that are under the jurisdiction or control of Parties, including in areas beyond national jurisdiction. (There could be cross-references to more specific targets under the programme of work on protected areas and the Global Strategy for Plant Conservation)

## Target 12. The extinction of known threatened species (vertebrates and higher plants) has been prevented.

Technical rationale: Current rates of extinction are some 100 to 1000 times the background extinction rate. While, reducing the threat of extinction requires action to address the direct and indirect drivers of change, imminent extinctions of known threatened species (these are mostly vertebrates and higher plants) can in many cases be prevented by protecting the sites where such threatened species (included in the Red List) are located. There would be additional biodiversity benefits from the protection of the habitats and other species contained therein. Indicators could include the proportion of known threatened species so-protected and changes in Red List status. (There could be cross-references to targets of other biodiversity conventions; e.g. from CITES: "No species of wild flora or fauna endangered by international trade")

## Target 13. By 2020, The status of crop and livestock genetic diversity in agricultural ecosystems and of wild relatives has been improved. (SMART target to be developed at global and national levels).

*Technical rationale:* The genetic diversity of crop and livestock diversity on farm is in decline. While substantial progress has been made to safeguard many varieties and breeds through ex situ storage in genebanks, less progress has been made in situ. In situ conservation, including through continued cultivation on farms, allow for on-going adaption to changing conditions (such as climate change) and agricultural practices. In addition, in situ conservation of wild relatives of crop plants could be improved inside and outside protected areas.

## Target 14. By 2020, The contribution of biodiversity and terrestrial, freshwater and coastal ecosystems to sequestering and retaining greenhouse gases has been enhanced.

Technical rationale: The conservation, restoration and sustainable management of forests, soils (especially peatlands), freshwater and coastal wetlands and other ecosystems is a proven, cost-effective, safe and immediately-available means to sequester carbon dioxide and prevent the loss of other greenhouse gases. Deforestation, wetland-drainage and other habitat change leads to a loss of carbon

dioxide, methane and other greenhouse gases. Appropriate incentive schemes (such as the "REDD" schemes under discussion in the context of the climate change negotiations, and additional schemes for other terrestrial, freshwater and coastal ecosystems) could reduce, or even reverse these land use changes, and, with appropriate safeguards, could also deliver substantial co-benefits for biodiversity and local livelihoods. Monitoring is being developed as an integral part of these schemes.

Target 15. By 2020, Terrestrial, freshwater and marine ecosystems that provide critical services, and ecological resilience or that contribute to local livelihoods and climate change adaptation have been safeguarded or restored, and adequate and equitable access to essential ecosystem services is guaranteed for all, especially indigenous and local communities and the poor and vulnerable..

Technical rationale: All terrestrial, freshwater and marine ecosystems provide multiple ecosystem services. Some ecosystems however are particularly important in that they provide services that are critical to supporting local livelihoods or providing resilience to change, including climate change. Accordingly, priority should be given to safeguarding, or restoring such ecosystems. Such ecosystems should be identified through participatory processes at local, national and global levels and the necessary investments in their protection made.

## Strategic Goal D. Enhance implementation through planning, knowledge management and capacity development, and the fair and equitable sharing of the benefits arising from the use of genetic resources.

Introduction. Most action under the Convention is initiated and carried out at the national or sub-national level, and will be delivered through national biodiversity strategies and action plans. National strategies need to integrate new national targets consistent with this Plan and be implemented through action plans involving all sectors of government, society and the economy. This will also require improvements in knowledge and how it is deployed as well as substantial increases in capacity in all countries, but especially in developing countries and economies in transition, and in particular in least developed countries and small island developing states. The new international regime on access and benefit sharing is expected to enhance implementation of the Convention through its third objective, by facilitating both access to genetic resources, and the fair and equitable sharing of benefits arising from their use. This will contribute to both basic and applied research and the development of commercial products which can in turn bring about a number of benefits to the provider countries, including a better understanding of the value of their natural resources, through the sharing of the results of research, the transfer of technologies developed on the basis of their genetic resources, training of local scientists, as well as benefits arising out of the commercialization of products based on genetic resources found on their territories which can contribute to human well being

Target 16. By 2020, Each Party has an appropriate, up-to-date, effective and operational national biodiversity strategy, consistent with this Strategic Plan, based on adequate assessment of biodiversity, its value and threats, with responsibilities allocated among sectors, levels of government, and other stakeholders, and coordination mechanisms are in place to ensure implementation of the actions needed;

Technical rationale: National biodiversity strategies and action plans (NBSAPs) are the key instrument for translating the Convention and decisions of the Conference of the parties into national action. Over 160 countries have prepared national biodiversity strategies. COP has adopted consolidated guidance for the development, updating and revision of NBSAPs (Decision IX/8). In line with this decision, NBSAPs should catalyze a number of strategic actions in countries including: Integration of biodiversity in broader national strategies (see target 2); CEPA; ensuring availability of information and knowledge for action, including through national CHM nodes; ensuring availability of appropriate tools for implementation; providing capacity building and facilitating access to financial resources; and ensuring monitoring,

reporting and review, including identification and use of indicators as appropriate. The planning process would of necessity involve dialogue with all sectors of society and all levels of government. A revised NBSAP should be not a static planning document but a dynamic process that allows individual Parties to identify their needs, priorities and opportunities for biodiversity in light of their broader national goals. Consistent with the proposed MYPOW, interim targets or milestones would be for all Parties to have identified national targets and the main elements of there national strategies by 2012 and have developed fully updated and comprehensive strategies with action plans by 2014. The revised NBSAPs of the members of the Group of 77 will also integrate the multi-year plan of action on South-South Cooperation on Biodiversity for Development. Where appropriate regional and sub-national strategies should be developed. The target for 2020 implies that not only NBSAPs are developed, but that they are used as effective tools for mainstreaming biodiversity across government and society.

### Target 17. By 2020, Access to genetic resources is enhanced, and substantial benefits are shared, consistent with the international regime on access and benefit sharing;

Technical rationale: COP-10 is expected to adopt an international regime on access and benefit sharing. If a legally-binding regime is agreed, interim targets could be set for its ratification and entry into force. Indicators could include the number of countries Party to the international regime, the number of countries with national ABS frameworks/legislation; the number of ABS agreements; the number of technical assistance programmes for strengthening national ABS programmes; and the value of benefits shared.

Target 18. By 2020, Traditional knowledge, innovations and practices and the rights of indigenous and local communities over these are protected (SMART target to be developed at global and national levels).

Technical rationale: In line with article 8(j) of the Convention, traditional knowledge, innovations and practices should be protected, and used in local ecosystem management, drawing upon experiences of customary use, with the approval of relevant communities. The rights of indigenous and local communities traditional knowledge, innovations and practices should also be protected.

# Target 19. By 2020, Knowledge and technologies relating to biodiversity, its value and functioning, its status and trends, and the consequences of its loss, are improved and widely shared, and uncertainties concerning biodiversity change, ecosystem services and impacts on human well-being are reduced;

Technical rationale: Each country needs access to information to identify threats to biodiversity and determine priorities for conservation and sustainable use. For knowledge that is already available, access could be improved through the further development of the clearing house mechanism at national and global levels. Relevant information includes biodiversity-related data as well as tools and methodologies for biodiversity conservation, sustainable use and benefit sharing, and case studies of there use. Further efforts are also needed, at multiple scales, to improve biodiversity-related knowledge and reduce uncertainties around the relationship between biodiversity change, ecosystem services and impacts on human well-being. This requires substantial investment in global and national biodiversity observation networks, implementation of the global taxonomy initiative, and further investment in research, including modelling. Improvements are also needed in the science-policy interface. Indicators of progress could include: number of countries with national clearing house mechanisms; visitors/per year at each national CHM websites; a globally agreed set of status and trends metrics; extent of data coverage for global biodiversity indicators and measures; and use biodiversity-related information in the fifth and sixth national reports.

**Target 20.** By 2020, **Capacity** (human resources and financing) for implementing the Convention has been increased tenfold. (This target should be synchronized with the Strategy for Resource Mobilization)

Technical rationale: The capacity for implementing the Convention in terms of trained staff and financial resources is limited in most countries, especially in developing countries, and in particular the least developed countries and small island developing states. It needs to be increased by an order of magnitude to meet the challenges of implementing this Strategic Plan. In accordance with the Convention, financing will be from both domestic and international sources, including innovative financing mechanisms, in line with the Convention's Strategy for Resource Mobilization adopted at COP-9.

### V. Implementation, monitoring, review and evaluation.

Achieving the vision, mission and targets of the updated and revised Strategic Plan will require substantial improvements in the functioning of the Convention in order to foster an improved enabling environment at global and national levels. While most activities to implement the Convention are carried out at national level, the Convention bodies have a key role to play in reviewing implementation, promoting cooperation to address common issues, and to ensure that effective support mechanisms are provided for capacity development; knowledge generation, use and sharing, and access to the financial and other resources.

The Strategic Plan as a flexible framework for national action: Most action under the Convention is initiated and carried out at the national or sub-national level. In addition, political will is generated most effectively at the national and sub-national level in response to public opinion influenced by civil society, the business community and the media. Therefore it is important to translate the Vision, Mission and Targets of the Strategic Plan into instruments that are appropriate to and will work at the national level. Parties would be requested to set their own biodiversity targets or commitments consistent with the global targets in this Strategic Plan and their own national needs, priorities and assessment of threats, and incorporate these into revised and updated national biodiversity strategies (see annex 1, final column, for examples of existing national targets). Parties would be supported in carrying out these tasks through capacity development and the provision of adequate resources (see section VI: support mechanisms). Parties would report on these targets, and on progress in implementing them, to the Conference of the Parties.

Review by the Conference of the Parties: This Strategic Plan implies that the Conference of the Parties and other Convention bodies, in particular the Working Group on Review of Implementation, should focus on the tasks of supporting effective implementation by Parties through thorough review of implementation, such that its new guidance is informed by the experience of Parties in implementing the Convention (in line with the principle of adaptive management through active learning). The WGRI might develop effective mechanisms to support this work, including, for example, voluntary peer-review of implementation. In this way, the Conference of the Parties would fully play the role assigned to it in Article 24 of the Convention. A process for achieving this would need to be included in the multi-year programme of work of the Conference of the Parties (MYPOW).

**Promoting cooperation:** Just as mainstreaming is necessary at the national level, biodiversity-related issues need to be integrated into international instruments, through cooperation between the CBD and other conventions, international organizations and processes, civil society and the private sector. In particular, efforts will be needed to:

(a) Ensure that the Convention, through its new Strategic Plan contributes to sustainable development and the elimination of poverty, and the other Millennium Development Goals. The Conference of the Parties may wish to review the contribution of the Convention to the achievement of the 2015 targets of the

MDG framework, and, just as the 2010 Target was incorporated into the MDG framework, the new Targets should be reflected in the post 2015 MDG framework.

- (b) Ensure cooperation to achieve implementation of the Plan in different sectors. For example cooperation is needed: with FAO and UNCLOS to promote sustainable fisheries and establish protected areas in areas beyond national jurisdiction; with members of the Collaborative Partnership on Forests to promote sustainable forest management and reduce deforestation and forest degradation; and with the International Plant Protection Convention, the International Organization for Animal Health and other bodies to prevent the spread of invasive alien species. Cooperation between secretariats could be complemented by joint expert groups and even joint meetings of intergovernmental bodies on selected issues of mutual concern.
- (c) Promote synergy in the implementation of multilateral environmental agreements, in particular among CBD, UNFCCC and UNCCD. The three Rio Conventions deal with different but inter-related aspects of ensuring a "healthy planet." The UNCCD recently adopted its own strategic plan and its ongoing process of developing ways of implementing the plan provides an opportunity to ensure synergy with the implementation of the CBD's plan. In addition, cooperation among the three conventions could be further strengthened building upon the work of the Joint Liaison Group of the Rio Conventions to develop a joint work programme for the three conventions. The three conventions were born from the 1992 Rio Earth Summit and preparations for the 2012 "Rio+20" Conference may provide an appropriate opportunity to pursue this objective. There is also a need to further promote synergy among the biodiversity related conventions (CBD, CITES, WHC, Ramsar, CMS, ITPGRFA), building upon the work of the Liaison Group on Biodiversity-Related Conventions. Again, joint expert groups and meetings of intergovernmental bodies on selected issues of mutual concern might complement inter-secretariat cooperation.

### VI. Support Mechanisms

- **A. Capacity Building for effective national action:** While most Parties (87%) have developed national biodiversity strategies and action plans, in many cases these will need to be enhanced to ensure that they are effective tools for implementing the Convention. The lessons from earlier reviews of implementation have been codified in COP guidance and suggest that NBSAPs should be regarded less as static documents and more as dynamic processes to catalyze a number of strategic actions in countries, including:
- Mainstreaming biodiversity will be best protected if it is a significant factor in decisions made across a wide range of sectors, departments and economic activities, systems for planning the use of land, freshwater and sea areas (spatial planning), and policies to reduce poverty and adapt to climate change
- Communication and involvement strategies will only be effective if they genuinely involve the people closest to the resources they are designed to protect. Often the best solutions will be driven by local demand, using legal and institutional frameworks set at a higher level.
- Provision and use of tools for implementation particular approaches, such as making integrated decisions based on maintaining and improving the overall health of ecosystems, or introducing policies on payments for the use of hitherto "free" ecosystem services, can aid in the protection of biodiversity.
- Access to knowledge for good decisions to be made, the best available information about the biodiversity of a country or region must be accessible to the right people at the right time. The Clearing-House Mechanism, a system of compiling, co-ordinating and providing access to relevant and up-to-date knowledge, is a key tool provided by the CBD framework.
- Monitoring assessing and communicating progress towards the goals and targets set by a biodiversity strategy is an important way to improve its effectiveness and visibility.
- Financing and capacity co-ordinating action to support biodiversity will only be meaningful if there is money to do it and there are people who know how to do it.

Objective Five of the recently approved GEF-5 Biodiversity Strategy is the integration of CBD obligations into national planning processes through enabling activities. Enabling activity support could be provided for revising NBSAPs in line with the CBD's new strategic plan to be adopted at COP-10 and integrating biodiversity into sectoral planning, national reporting, and implementation of guidance related

to the Clearing House Mechanism (CHM). Eligible countries will have access to funds to support the review and updating of NBSAPs in line with the Strategic Plan. A global support programme (SCBD/UNEP/UNDP etc), together with regional support programmes, could complement this, providing technical support and facilitating peer-to-peer exchange, and complementing national activities, including through the UNDP network of country offices.

- **B. Clearing House Mechanism** and technology transfer: Collectively those involved in implementing the Convention have a wealth of experience and have developed many useful good practice cases, tools and guidance. There is additional useful information beyond this community. A database and network of practitioners that brings together this knowledge and experience makes it available through the CHM would facilitate and support enhanced implementation of the Convention. This could be complemented through mechanisms for evidence-based reviews of the effectiveness of actions National CHM nodes comprising networks of experts with effective websites need to be developed and sustained to ensure that in each Party, all have access to the necessary information, expertise and experience.
- **C. Financial Resources:** The COP-9 Resource Mobilization Strategy including the targets/indicators to be developed, and process for developing innovative mechanisms, provides a roadmap for establishing a global mechanism for the effective implementation of Article 20(2) and 20(4) of the Convention.

### D. Initiatives to enhance cooperation

- South-South Cooperation: In line with COP decision IX/25, a multi-year Plan of Action for South-South Cooperation on Biodiversity for Development 2011-20 is being developed, with a view to its adoption by the G77 and presentation to COP-10. It is envisaged that Plan of Action would contribute to the implementation of the Strategic Plan.
- **Promoting engagement of cities and local authorities**. In line with decision IX/28, a plan of action on cities and biodiversity is being developed, as well as an urban biodiversity index, for consideration at the Nagoya Summit on Cities and Biodiversity (October 25-26, 2010) and COP-10

#### E. Support mechanisms for research, monitoring and assessment:

Three kinds of science-based input are required to support the work of the COP.

- Global monitoring of biodiversity: work is needed to monitor biodiversity, maintain and share data, and develop and use indicators and agreed measures of biodiversity change. The GEO-Biodiversity Observation Network, with further development and adequate resourcing, could facilitate this, together with GBIF and the Biodiversity Indicators Partnership.
- Regular assessment of the state of biodiversity and ecosystem services, future scenarios
  and effectiveness of responses: this could be provided through an enhanced role for
  SBSTTA as well as the proposed intergovernmental platform on biodiversity and
  ecosystem services.
- Ongoing research on biodiversity and ecosystem services and their relationship to human well-being: this will be facilitated by the International Council for Science (ICSU) through DIVERSITAS, the Programme on Ecosystem Change and Society and other global change research programmes.

### VI. Elements for the multi-year programme of work of the Conference of the Parties (MYPOW):

This Strategic Plan implies that the Conference of the Parties and other Convention bodies, in particular the Working Group on Review of Implementation, should strengthen its efforts supporting effective implementation by Parties, through thorough review of implementation, and by fostering the necessary supporting mechanisms. The Conference of the Parties will also need to continue to promote cooperation

to address common issues, and to address new and emerging issues, including those identified by SBSTTA, and to develop new guidance on these issues. Overall, it might be expected that the new multi-year programme of work of the Conference of the Parties would give priority to supporting implementation. The final calendar would depend on the periodicity of meetings (which will be reviewed at WGRI-3 and COP-10) so here some possible issues and milestones are proposed.

### A. Keeping under review the implementation of the Convention.

By 2012 (or the date of COP-11):

- Parties would report on the national targets or commitments they have adopted to deliver the implementation of the Strategic Plan, and the main elements of their revised national strategy.
- COP would review the progress made, contributions to the global targets as set out in the Strategic Plan and make recommendations to overcome any obstacles in meeting those targets, including measures to strengthen the mechanisms to support implementation, monitoring and review.

By 2014 (or the date of COP-12):

- Parties would have completed a comprehensive review of their NBSAP, including action plans to
  mainstream biodiversity in national and sectoral plans programmes and strategies, and would
  report on these, through their 5th National Reports, submitted in 2013 or 2014.
- COP would undertake a mid-term assessment of progress to 2020 targets and contribution to MDG 2015 targets based on the 5th National Reports

By 2020:

- Parties would have provided a report on progress towards the 2020 Targets through their sixth national reports submitted in 2018 or 2019.
- COP would undertake a final assessment of the achievement of 2020 targets based on the 6th national reports, and other relevant information, and consider proposals for Strategic Plan beyond 2020.

### **B.** Promoting cooperation.

Given the timing of other relevant international processes, COP may wish to include in the MYPOW the following:

By 2012 (COP-11):

• Preparation for a joint workplan among CBD, UNCCD and UNFCCC and related inputs to the "Rio+20" Conference.

By 2014 (COP-12):

• Inputs to UN-wide assessment of progress towards the 2015 Targets of the Millennium Development Goals.

### C. Providing guidance on outstanding issues and addressing new and emerging issues.

Given that a comprehensive review of implementation is envisaged (as outlined above), it is not expected that the COP would need to continue with scheduled in-depth reviews of each programme of work. Instead the COP would respond to recommendations from SBSTTA to address new and emerging issues. While most Articles of the Convention have been addressed in the agendas of meetings of the Conference of the Parties held to date, there are some exceptions as set out in UNEP/CBD/COP/9/14/Add.1. The following are issues that may warrant attention from COP during the MYPOW post 2010:

- Ecosystem restoration
- Biodiversity in polar regions
- Some aspects of the identification and management of threats to biodiversity, sustainable use, and incentive measures (see UNEP/CBD/COP/9/14/Add.1).
- The contribution of biodiversity to human well-being, in particular to health, and to poverty elimination.

### Annex

### FRAMEWORK OF TARGETS, ACTIVITIES AND INDICATORS FOR IMPLEMENTATION AND MONITORING

This is an early draft of the framework provided for illustrative purposes only.

Suggestion for SMART Target	Means and examples of activities	Possible Indicators (Parenthesis) = new indicator Italic = not developed	Most relevant CBD programmes of work and cross-cutting issues	Possible Synergies and partnerships	Examples of existing national biodiversity target
Strategic Goal A. Initiate str the realignment of economic		indirect drivers of biodivers gaming of biodiversity across	•	•	and public awareness,
1. By 2020, everyone is aware of the value of biodiversity and what steps they can take to protect it.	Implement CEPA programmes Active engagement of citizens Develop Citizen action lists	(# opinion surveys) (#/time of biodiversity volunteers) (#education programmes) (# visits to museums, parks)	Communication, Education and Public Awareness	UNESCO List of voluntary actions for citizens.	By 2012 all environmental themes will be incorporated into curriculum of universities and schools. (Yemen) 10 million Europeans actively engaged in biodiversity conservation by 2010, and 15 million by 2013. (European Community)
2. By 2020, the value of biodiversity, and the opportunities derived from its conservation and sustainable use, and the fair and equitable sharing of benefits from the use of genetic resources, are recognized and reflected in all countries, in national development policies and strategies, national accounts, economic sectors and spatial planning processes at all levels of government, and by the private sector, applying the ecosystem approach	Application of strategic environmental assessment Value biodiversity and ecosystem services. Apply environmental accounting Mainstream biodiversity in poverty reduction, development strategies and development cooperation Develop and apply payment for ecosystem services mechanisms Develop private Sector guidelines and practices Action by cities and local authorities	(# countries with PRSP/NDP incorporating biodiversity) (# countries with biodiversity indicators among national headline indicators) (# countries requiring SEA) (# countries with policies for ecosystem based management) (# countries with systematic conservation planning) (#companies / market share with biodiversity friendly practices)	Ecosystem Approach Economics, Trade and Incentive Measures Biodiversity for Development Impact Assessment Liability and Redress Tourism and Biodiversity	Millennium Development Goals The economics of ecosystems and biodiversity (TEEB) UNEP/UNDP Poverty-Environment Initiative. International Association of Impact Asessment. ICLEI.	By 2020, the principles of sustainable development will be integrated into country policies and programmes and the loss of environmental sources will be reversed. (Afghanistan)

Suggestion for SMART Target	Means and examples of activities	Possible Indicators (Parenthesis) = new indicator Italic = not developed	Most relevant CBD programmes of work and cross-cutting issues	Possible Synergies and partnerships	Examples of existing national biodiversity target
3. By 2020, subsidies harmful to biodiversity are eliminated.	Application of CBD guidance on SEA and incentive measures Application of relevant OECD guidance Implement national measures to remove perverse incentives Complete WTO negotiations on fishery subsidies and on agricultural domestic support	(Value of subsidies directly linked to production in agriculture, fisheries and other relevant sectors) (Successful conclusion of WTO negotiations on fishery subsidies and on agricultural domestic support)	Economics, Trade and Incentive Measures	WTO process	
4. By 2020, governments and stakeholders at all levels and businesses and civil society have formulated and begun to implement sustainability plans to increase efficiency, reduce waste and limit the consumption of resources within ecological limits  Strategic Goal B. Address the	Develop, revise and implement NBSAPs Create inter-ministerial committees Nationally-developed guidelines Develop sector guidelines Promote ecosystem management in city districts	Ecological footprint and related concepts (# sectors, by country and company, with management plans)incorporating biodiversity)	n biodiversity from ho	ICLEI City Initiative Business and Biodiversity Initiative	By 2015, the principles of sustainable development will be integrated into country policies and programs (Yemen)
invasive species and climate	· ·	of toda, reducing predatics o		ional change, over enp	ionanon, ponunon,
5. By 2020, deforestation and forest degradation, and the loss and degradation of other natural habitats is halved.	Implement spatial planning; Enforce existing laws and regulations Implement REDD;	Trends in extent of selected biomes, ecosystems and habitats, eg: Forest area Area of wetlands, mangroves, seagrass beds, live coral reefs,	Forest Biodiversity	The UN Forest Instrument FAO Committee on Foresty Other members of the Collaborative partnership on forests.	By 2010, deforestation in the Amazon Biome reduced by 75% (Brazil) Forest coverage maintained at the 2000 level of 60% coverage through 2010 and 2015. (Cambodia) By 2012, forest and tree cover will be increased to 33% (from 23.39% presently) (China)

Suggestion for SMART Target	Means and examples of activities	Possible Indicators (Parenthesis) = new indicator Italic = not developed	Most relevant CBD programmes of work and cross-cutting issues	Possible Synergies and partnerships	Examples of existing national biodiversity target
6. By 2020, pressure on marine ecosystems through overfishing halved, and destructive fishing practices are eliminated;	Reduce fishing intensity and areas through collaborative partnerships with local communities and fishery organizations	Distribution and abundance of fish species, (proportion of collapsed species), (fisheries catch) (catch per unit effort) trophic level (proportion of stocks overexploited)	Sustainable Use of Biodiversity	FAO Committee on Fisheries Regional Fisheries Management Organizations	Stock levels maintained or restored to levels that can produce maximum sustainable yield, where possible no later than 2015 and the ecosystem approach to the protection of the seas and implied fisheries management measures applied no later than 2016. (European Community)  The number of community-based fisheries will be increased from 264 in 2000 to 589 in 2015 (Cambodia)
7. By 2020, all areas under agriculture, aquaculture and forestry are managed according to sustainability criteria.	Implement sustainable Forest Management Apply forest law and governance (FLEG) mechanisms Apply good agricultural practices; Reduce pesticide use and apply integrated pest management Promoted certification and labelling Implement t Satoyama and similar initiatives	Area of forest, agricultural and aquaculture ecosystems under sustainable management Extent of use of good agricultural practices Proportion of products derived from sustainable sources	Sustainable Use of Biodiversity	The UN Forest Instrument and SFM processes. FAO Voluntary certification schemes and round tables. Business and biodiversity initiative	By 2015, spawning in fish cages will be halted to avoid genetic mixing of farmed cod and wild cod (Norway)  By 2010, biodiversity and biological resources will be used in a sustainable manner, so that biodiversity is maintained at the landscape level. (Sweden)
8. By 2020, pollution from excess nutrients (N and P) has been brought below critical ecosystem loads.	Promote appropriate and efficient fertilizer use and disposal of wastes from livestock (good agricultural practices) Improve sewage treatment Protect wetlands	(Aerial) N deposition Water quality in aquatic ecosystems		The International Nitrogen Initiative	Principal pollutant pressures on terrestrial and freshwater biodiversity substantially reduced by 2010 and again by 2013 (European Community)

Suggestion for SMART Target	Means and examples of activities	Possible Indicators (Parenthesis) = new indicator Italic = not developed	Most relevant CBD programmes of work and cross-cutting issues	Possible Synergies and partnerships	Examples of existing national biodiversity target
9. By 2020, the introduction and establishment of invasive species has been prevented and emerging infectious diseases of wildlife controlled. (SMART target to be developed).	Increase effectiveness of border controls and quarantine measures Address pet trade Control spread of invasive species Study and monitor emerging wildlife infectious diseases	Trends in invasive alien species	Invasive Alien Species	IPPC; OIE; IMO; ICAO Amphibian Action Plan	By 2010 action plans for prevention and control prepared for all species listed under the National Assessment of Alien Invasive Species (Brazil)
10. By 2020, the impacts of climate change and of ocean acidification on ecosystems have been reduced and responses to climate change that are not detrimental to biodiversity have been agreed. (SMART target to be developed).  Strategic Goal C. Promote descriptions of the control of the cont	Reduce CO2 and other GHG emissions Optimise ecosystem management to remove CO2 Conduct vulnerability assessments	Ppm CO2 Ocean acidity	Climate Change and Biodiversity	es, and contribute to c	By 2010 support to biogeographic studies to include the predictability of species occurrence associated with potential climate changes using Geographic Information Systems (Brazil)
mitigation and adaptation.	arcei action to sajeguara and	i restore biodirersity dia rea	aica coosysiem service	s, una contribute to ci	amuic change
11. By 2020, at least 15% of land and sea areas, including the most critical terrestrial, freshwater and marine habitats, have been protected through effectively managed protected areas and/or other means, and integrated into the wider land- and seascape	Protect critical areas identified in line with Annex 1 of the Convention (includes high biodiversity areas and areas providing critical ecosystem services)  Ensure cooperation with indigenous and local communities.  Ensure effective and sustainable management of protected areas	Coverage of protected areas Management effectiveness of protected areas Trends in extent of selected biomes, ecosystems and habitats Water quality in aquatic ecosystems Connectivity/fragmentation of ecosystems	Protected Areas Dry and Sub-humid Lands Biodiversity Inland Waters Biodiversity Island Biodiversity Marine and Coastal Biodiversity Mountain Biodiversity Global Strategy for Plant Conservation	IUCN-WCPA Major NGOs	By 2012 a representative network of marine protected areas established (Norway) By 2030, 713 wetland sites and 80 sites of international importance will be established, protecting 90% of wetlands of the country. (China) By end of 2013, over 49.5% of the country's land area representing all the ecosystems will be under protected areas thereby ensuring survival of all the representative species. (Bhutan)

Suggestion for SMART Target	Means and examples of activities	Possible Indicators (Parenthesis) = new indicator Italic = not developed	Most relevant CBD programmes of work and cross-cutting issues	Possible Synergies and partnerships	Examples of existing national biodiversity target
12. The extinction of known threatened species (vertebrates and higher plants) has been prevented.	Identification and protection of priority areas Implement species recovery and conservation programmes	Change in status of threatened species	Global Strategy for Plant Conservation	Alliance for Zero Extinction POWPA	By 2015, the conservation status of threatened species will have improved such that the proportion threatened species will have decreased by 30% compared to 2000, with no increase in the percentage of species that have become regionally extinct. (Sweden)  By 2012, 50% of endangered plants will be conserved. (Japan)
13. By 2020, the status of crop and livestock genetic diversity in agricultural ecosystems and of wild relatives has been improved. (SMART target to be developed).	Maintenance of crop and livestock varieties on farm Establish protected areas for wild relatives Continue to establish and develop genebanks	Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance (# genebank accessions)	Agricultural Biodiversity Global Strategy for Plant Conservation	FAO Bioversity International	By 2010 60% of the genetic diversity of Brazilian wild relatives of cultivated plant species of the ten priority genera effectively conserved <i>in situ</i> and/or <i>ex situ</i> (Brazil)
14. By 2020, the contribution of biodiversity and terrestrial, freshwater and coastal ecosystems to sequestering and retaining greenhouse gases has been enhanced.	Implement mechanisms related to REDD Protect peatlands and other key wetlands Improve soil management	Storage of carbon and other GHG (using UNFCCC inventories supplemented by scientific assessments)	Climate Change and Biodiversity	UNFCCC	Increase afforestation to 30% by 2020 and to 33% in 2050 (Poland)

Suggestion for SMART Target	Means and examples of activities	Possible Indicators (Parenthesis) = new indicator Italic = not developed	Most relevant CBD programmes of work and cross-cutting issues	Possible Synergies and partnerships	Examples of existing national biodiversity target
15. By 2020, terrestrial, freshwater and marine ecosystems that provide critical services that build ecological resilience or that contribute to local livelihoods and climate change adaptation have been safeguarded or restored, and adequate and equitable access to essential ecosystem services is guaranteed for all, especially indigenous and local communities and the poor and vulnerable.  Strategic Goal D. Enhance in		Connectivity/fragmentation of ecosystems  Health and well-being of communities who depend directly on local ecosystem goods and services  Biodiversity used in food and medicine  Incidence of Human-induced ecosystem failure	Climate Change and Biodiversity	opment, and the fair o	By 2012, a total of 33,000 ha of upland forests and drained peatlands will be restored. (Finland)  Protected areas will cover 8.7% by 2013 and 12% by 2028 (South Africa)  By 2012, the coverage of protected areas will reach 12% of the total land area of the country and 15% by 2017. (Jordan)
the benefits arising from the  16. By 2020, each Party has an appropriate, up-to-date, effective and operational national biodiversity strategy, consistent with this Strategic Plan, based on adequate assessment of biodiversity, its value and threats, with responsibilities allocated among sectors, levels of government, and other stakeholders, and coordination mechanisms are in place to ensure implementation of the actions needed;	Further develop National planning processes. Further develop National clearing house mechanisms	(# countries with revised NBSAPs) (% implementation of NBSAPs) (# countries with national CHM websites) (# visitors/per year at each national CHM websites) (quality of web content & online services) (web user feedback)		GEF, UNDP Global Support Programme	

Suggestion for SMART Target	Means and examples of activities	Possible Indicators (Parenthesis) = new indicator Italic = not developed	Most relevant CBD programmes of work and cross-cutting issues	Possible Synergies and partnerships	Examples of existing national biodiversity target
17. By 2020, access to genetic resources is enhanced, and substantial benefits are shared, consistent with the international regime on access and benefit sharing; .	Provide technical assistance to develop national ABS frameworks and legislation and implement the international regime Implement awareness raising activities among users and providers of genetic resources Provide technical assistance to support research and utilization of genetic resources to generate value	Indicators to be developed (# countries Party to international regime, ITPGRFA) (# national ABS frameworks, legislation) (# ABS agreements) (# technical assistance programmes) (Value of benefits shared)	Access to Genetic Resources and Benefit-sharing		By 2010, national programme for ABS will be fully developed and sufficient number of personnel for protection of indigenous traditional knowledge. (Sweden)
18. By 2020, traditional knowledge, innovations and practices and the rights of indigenous and local communities over these are protected. (SMART target to be developed at global and national levels).	Implement Article 8j Implement and support the Satoyama initiative and similar initiatives	Status of languages.	Traditional Knowledge, Innovations and Practices	UNESCO	By 2010 100% of cases of access to traditional knowledge include prior informed consent, obligatory sharing of knowledge generated and sharing of benefits (Brazil)
19. By 2020, knowledge and technologies relating to biodiversity, its value and functioning, its status and trends, and the consequences of its loss, are improved and widely shared, and uncertainties concerning biodiversity change, ecosystem services and impacts on human well-being are reduced	Improve understanding of biodiversity, relationship with ecosystem services and human well-being and consequences of loss; Reduce uncertainties concerning the causes and consequences of biodiversity loss in future scenarios Improve global monitoring and capacity to use indicators	Indicator to be developed (# countries using biodiversity indicators) (#cases technical assistance to developing countries)	Identification, Monitoring, Indicators and Assessments Technology Transfer and Cooperation Global Taxonomy Initiative	GTI GEO-Bon, and regional and national components Global Mapping Project IPBES DIVERSITAS etc BIP	Promotion of the exchange and transfer of environmentally sustainable technologies between developing countries for the effective implementation of the CBD programmes of work, in accordance with Article 20, paragraph 4 and Article 16 (Brazil)

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Suggestion for SMART Target	Means and examples of activities	Possible Indicators (Parenthesis) = new indicator Italic = not developed	Most relevant CBD programmes of work and cross-cutting issues	Possible Synergies and partnerships	Examples of existing national biodiversity target
20. By 2020, capacity (human resources and financing) for implementing the Convention has been increased tenfold.	Increase ODA Reinforce domestic capacity Implement innovative financing mechanisms Apply appropriate allocation of resources Improve dialogue and coordination among donors and recipients of bilateral and multilateral aid Undertake training and capacity building Promote professional networks and exchange of expertise	Official development assistance provided in support of the Convention (Number of officials and experts qualified on biodiversity related matters)		Resource mobilization strategy GEF Funds available for REDD and climate change adaptation.	By 2010 new and additional financial resources, from public and private, domestic and international sources obtained and available for use in Brazil making possible the effective implementation of its commitments to the CBD programmes of work, in accordance with Article 20 (Brazil)

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