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SUBSIDIARY BODY ON SCIENTIFIC,
TECHNICAL AND TECHNOLOGICAL ADVICE

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Item 3.4 of the provisional agenda*

**RECOMMENDATION ADOPTED BY THE SUBSIDIARY BODY ON SCIENTIFIC,
TECHNICAL AND TECHNOLOGICAL ADVICE AT ITS FOURTEENTH MEETING**

XIV/9. Examination of the outcome-oriented goals and targets (and associated indicators) and consideration of their possible adjustment for the period beyond 2010

The Subsidiary Body on Scientific, Technical and Technological Advice,

I. GENERAL RECOMMENDATIONS

Having examined the scientific and technical aspects of the proposed set of targets for the Strategic Plan 2011-2020 of the Convention, including their technical rationale and proposed indicators;

Noting that, in line with decision IX/9, the Ad Hoc Open-ended Working Group on Review of Implementation, at its third meeting, will be drawing upon this examination of the scientific and technical aspects of the outcome-oriented goals and targets, and associated indicators, in preparing its recommendations on the revised and updated Strategic Plan, including a revised biodiversity target,

1. *Concludes* that, from a scientific and technical viewpoint, the framework of targets in annexes I and II of the note by the Executive Secretary on the examination of the outcome-oriented goals and targets (and associated indicators) and consideration of their possible adjustment for the period beyond 2010 (UNEP/CBD/SBSTTA/14/10), taken together with the contributions of SBSTTA summarized in the annex to this decision, combined with mechanisms for their implementation, provide a logical evolution of the framework of goals and targets adopted through decisions VII/30 and VIII/15, and respond to the key issues identified in the third edition of Global Biodiversity Outlook (UNEP/CBD/SBSTTA/14/8);

2. *Recommends* that the targets listed in annex I of the note by the Executive Secretary on examination of the outcome-oriented goals and targets (and associated indicators) and consideration of their possible adjustment for the period beyond 2010 (UNEP/CBD/SBSTTA/14/10), together with the contributions of SBSTTA summarized in the annex to the present recommendation, be considered in the

* UNEP/CBD/SBSTTA/14/1.

process of finalizing the revision and updating of the Strategic Plan of the Convention for the post-2010 period, *noting* that the technical rationale provided for each target, provided in annex II to the note by the Executive Secretary (UNEP/CBD/SBSTTA/14/10), has provided the background for discussions by SBSTTA and needs to be completed in the light of these discussions;¹

3. *Notes* the outcomes of the Expert Workshop on the 2010 Biodiversity Indicators and Post-2010 Indicator Development, held in Reading, United Kingdom, from 6 to 8 July 2009;

II. RECOMMENDATION TO THE CONFERENCE OF THE PARTIES

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

(a) *Welcomes* the progress made in biodiversity monitoring since the adoption of the framework to enhance the evaluation of achievements and progress in the implementation of the Strategic Plan (decision VII/30);

(b) *Recognizes* the need to continue strengthening our ability to monitor biodiversity at all levels including through, *inter alia*:

- (i) Building on and continuing the work of the 2010 Biodiversity Indicators Partnership in delivering global indicators for the post-2010 period;
- (ii) Inviting scientific networks, including national academies of science, to contribute to the development and refinement of indicators suitable for monitoring biodiversity at the global, regional, national and local levels and encouraging science funding bodies to support such endeavours;
- (iii) Taking note of paragraphs 14 and 17 of recommendation 6/4 of the sixth meeting of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity² on progress in the identification of indicators on traditional knowledge, practices and innovation and supporting of the ongoing efforts of the Working Group on Indicators of the International Indigenous Forum on Biodiversity and its contribution to the ongoing refinement and use of the proposed indicators relevant to the post-2010 revised Strategic Plan of the Convention;
- (iv) Supporting national and regional efforts to establish or strengthen biodiversity monitoring and reporting systems to enable Parties to set their own targets and assess progress towards biodiversity targets established at national and/or regional level;
- (v) Strengthening the capacity to mobilize and use biodiversity data, information and forecasts so that they are readily accessible to policymakers, managers, experts

¹ The Working Group on Review of Implementation of the Convention may request the Executive Secretary to update the technical rationale for the targets agreed by it, taking into account the technical rationale provided in annex II to the note by the Executive Secretary (UNEP/CBD/SBSTTA/14/10), as well as the views expressed at the fourteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice and the third meeting of the Working Group on Implementation of the Convention.

² This reference contained in the report of the Subsidiary Body on the work of its fourteenth meeting (UNEP/CBD/COP/10/2) should be updated at the tenth meeting of the Conference of the Parties in light of the expected decision on this item.

and other users, *inter alia*, through participation in, and support to, the Group on Earth Observations Biodiversity Observation Network (GEO-BON);

- (vi) Identifying and addressing barriers that limit the availability of data, including through the work of the Conservation Commons;

(d) *Agrees to:*

- (i) Pursue the use of the global headline indicators contained in decision VIII/15 and the further development of measures (or specific indicators) in monitoring progress towards selected targets as indicated in annex II to the note by the Executive Secretary on examination of the outcome-oriented goals and targets (and associated indicators) and consideration of their possible adjustment for the period beyond 2010 (UNEP/CBD/SBSTTA/14/10) and summarized in the table in the note by the Executive Secretary on updating and revision of the Strategic Plan for the post-2010 period (UNEP/CBD/WG-RI/3/3);
- (ii) Complement these global headline indicators with additional indicators which are suitable for monitoring progress towards those targets for which suitable indicators have not yet been identified, in particular in relation to the economics of biodiversity and ecosystem services and the benefits to people derived from these services; and
- (iii) Develop measures (or specific indicators), in cooperation with the scientific community that could complement or substitute the existing indicators, taking into account indicators developed under other multilateral environmental agreements and international organizations and sector-based processes, and to bring these to the attention of the Executive Secretary;

(e) *Further recognizes* the need to draw on the conclusions of the third edition of the Global Biodiversity Outlook and other relevant assessments, to explore quantitative policy options, including assessments of the financial resources required to address the causes of biodiversity loss, to support the achievement of the post-2010 goals and targets;

(f) *Requests* the Executive Secretary, pending the availability of the necessary financial resources, to convene a meeting, at the earliest opportunity, of an Ad Hoc Technical Expert Group³ on Indicators for the Strategic Plan 2011-2020, which shall be established in accordance with the procedures outlined in the consolidated *modus operandi* of the Subsidiary Body on Scientific, Technical and Technological Advice (decision VIII/10, annex III), with full participation by developing countries, in particular the least developed and small island developing States among them, and countries with economies in transition, taking into account the need to draw upon the experience of the members of the 2010 Biodiversity Indicators Partnership and other relevant international organizations, also building on the outcomes of the Reading workshop, and to report to the Subsidiary Body on Scientific, Technical and Technological Advice prior to its fifteenth meeting, as most appropriate to contribute to the functions of this body and in particular to the timely implementation, monitoring and review of the Strategic Plan for the period 2011-2020 and the multi-year programme of work of the Convention. The Ad Hoc Technical Expert Group has the following terms of reference:

³ SBSTTA notes that the convening of an AHTEG has financial implications and is therefore subject to a decision by the Conference of the Parties. SBSTTA also wishes to refer to a list of all recommendations that have financial implications prepared by the Secretariat in accordance with paragraphs 11 and 12 of decision VIII/10.

- (i) Provide advice on the further development of indicators agreed through decisions VII/30 and VIII/15 and the information contained in annex III of document note by the Executive Secretary on examination of the outcome-oriented goals and targets (and associated indicators) and consideration of their possible adjustment for the period beyond 2010 (UNEP/CBD/SBSTTA/14/10) and in annex II of the note by the Executive Secretary on updating and revision of the Strategic Plan for the post-2010 period (UNEP/CBD/WG-RI/3/3), where necessary in the context in the Strategic Plan for the period 2011-2020;
 - (ii) Suggest additional indicators that have been, or could be, developed, where necessary, to constitute a coherent framework designed to assess progress towards targets of the Strategic Plan for the period 2011-2020 for which the current suite of indicators is not adequate, noting the lack of agreed indicators for ecosystem services, making use, where appropriate, of the indicators developed by other multilateral environmental agreements, organizations, or processes;
 - (iii) Develop further guidance and propose options for the establishment of mechanisms to support Parties in their efforts to develop national indicators and associated biodiversity monitoring and reporting systems, in support of setting of targets, according to national priorities and capacities, and monitoring of progress towards them;
 - (iv) Provide advice on the strengthening of linkages between global and national indicator development and reporting;
- (g) *Requests* the Executive Secretary to invite GEO-BON, working through organizations conducting biodiversity relevant observations, including, *inter alia*, the UNEP World Conservation Monitoring Centre and the International Union for Conservation of Nature, to prepare an evaluation of existing observation capabilities relevant to the targets contained in the Strategic Plan for the period 2011-2020 and provide a report in time for the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for the period 2011-2020 and to a meeting of the Subsidiary Body on Scientific, Technical and Technological Advice prior to the eleventh meeting of the Conference of the Parties;

Annex

**CONTRIBUTIONS OF THE SUBSIDIARY BODY TO THE PROPOSED MISSION,
STRATEGIC GOALS AND TARGETS FOR THE POST-2010 FRAMEWORK⁴**

General comments

The Subsidiary Body on Scientific, Technical and Technological Advice, at its fourteenth meeting, considered the proposed mission, strategic goals and targets for the post-2010 framework contained in annexes I and II of the note by the Executive Secretary on the examination of the outcome-oriented goals and targets (and associated indicators) and consideration of their possible adjustment for the period beyond 2010 (UNEP/CBD/SBSTTA/14/10) in an informal setting, focusing on the scientific, technical and technological aspects. The intent was to gather the range of views and their rationale in order to facilitate the work of the third meeting of the Working Group on Review of Implementation of the Convention.

The meeting agreed that the framework of targets should consist of a limited number (no more than 20) of targets that should as much as possible be specific, measurable, ambitious, realistic and time-bound. Preferably, targets should also be short and easy to communicate. The targets should also be presented in a manner showing how they contribute to sustainable development, human-well-being and poverty eradication.

The framework of targets should provide a flexible framework within which national and regional targets may be set or refined thereby facilitating the process of setting national targets or commitments, their integration into national biodiversity strategy and action plans and monitoring and reporting requirements laid out in the note by the Executive Secretary on updating and revision of Strategic Plan for the post-2010 period (UNEP/CBD/WGRI/3/3).⁵ There should be consistency among the targets and the set of goals and targets should be coherent.

The meeting did not carry out a detailed examination of the technical rationale in annex II of the note by the Executive Secretary on examination of the outcome-oriented goals and targets (and associated indicators) and consideration of their possible adjustment for the period beyond 2010 (UNEP/CBD/SBSTTA/14/10) but made some comments on them, and noted, in particular that they can be used to explain technical terms that would not be easy to communicate in the targets themselves; and recommended that the annex II be updated to take into account discussions at the fourteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, and circulated to Parties to assist further consideration of the Strategic Plan of the Convention for the post-2010 period.

The following paragraphs contain the original text for the mission, each goal and target in bold, followed by a summary of the contributions expressed during the fourteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, and where possible an indication of preferred options.

⁴ This annex is intended to provide inputs to the third meeting of the Working Group on Review of Implementation and there was no intention by SBSTTA to prepare a negotiated text.

⁵ This needs to be seen in conjunction with the expected recommendation by the third meeting of the Working Group on Review of Implementation on this matter.

Mission

Original text

The mission of this Strategic Plan is to ensure a coherent implementation of the Convention on Biological Diversity and achievement of its three objectives by promoting “Urgent action to halt the loss of biodiversity” and, “By 2020, to: reduce the pressures on biodiversity; prevent extinctions; restore ecosystems; and enhance ecosystem services, while equitably sharing the benefits, thus contributing to human well-being and poverty eradication, and to have provided the means for all Parties to do so.”

Alternative formulations

Promote urgent action to halt the loss of biodiversity by 2020, by reducing the pressures on biodiversity, preventing extinctions [of known species], restoring ecosystem services, while equitably sharing the benefits, thus contributing to human well-being and poverty eradication, and providing the means for all Parties to do so.

By 2020, biodiversity loss is halted, ecosystems are restored and the values and benefits of biodiversity and ecosystems are shared equitably and fully integrated into all aspects of development. And all Parties have the means to do so.

The Strategic Plan will identify, prioritize, guide and coordinate actions to: ensure mainstreaming biodiversity as a cross-cutting priority of development policies of government and society; reduce direct pressures on biological diversity; promote sustainable use of biological diversity to safeguard ecosystems, species and genetic diversity, enhance benefits derived from biological diversity and ensure the fair and equitable sharing of benefits arising from the use of biological diversity and its components.

Strategic goal A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society:

Some considered that the term “mainstreaming” is not clear to all potential readers.

A simpler formulation, consistent with goals B, C and D would be: “*Address the underlying causes of biodiversity loss.*” Overall, however, there was support for the original formulation.

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

The target was considered to be highly ambitious, and it was suggested to replace “*everyone*” with another term so as to be more realistic. Options discussed included: “*citizens*”, “*people*”, “*general public, mass media, decision makers and representatives of business groups*” and “*users of biodiversity*”. It was suggested that, to complement targets 2, 3 and 4, this target might focus on individuals rather than government, business or other collective entities, and on what individuals can do. The need to address communication and awareness raising for all relevant target groups including government, and the private sector for the effective achievement of mainstreaming across government and society, consistent with the proposed goal A was also suggested. “*Users of biodiversity*” was regarded as unsatisfactory since all are users.

It was suggested reference to educational curricula and communication programmes could be reflected in the milestones.

An alternative could be “*Awareness of the values of biodiversity and of the steps that can be taken to protect it have increased*”. However, this has a very low level of ambition since even the smallest improvement would satisfy this target. Such a target would also require more data points to assess progress than the original formulation.

Target 2: By 2020, the values of biodiversity are integrated by all countries in their national accounts, national and local strategies and planning processes, and by business, applying the ecosystem approach.

It was acknowledged that the integration of the values of biodiversity into national accounts would be difficult in some countries.

It was suggested that among national and local strategies, development and poverty reduction strategies should be specified.

The ecosystem approach is highly relevant to the integration of biodiversity into spatial planning processes but less relevant to the integration of biodiversity into national accounts.

It was suggested that actions by business should be highlighted.

Taking these points into account, alternative formulation are: “*By 2020, the values of biodiversity are integrated in national accounts, national and local development and poverty reduction strategies and spatial planning processes, applying the ecosystem approach, and adopted by business*”, and “*By 2020, the values of biodiversity are integrated in national and local development and poverty reduction strategies and spatial planning processes, and adopted by business*”

Target 3: By 2020, subsidies harmful to biodiversity are eliminated, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied.

Some suggested broadening the scope to include all policies harmful to biodiversity but others considered that such a broad scope would be unachievable and unfocussed.

It was recognized that subsidy removal is being considered in other forums, notably the World Trade Organization. It was suggested that “subsidies” be replace by “incentives, including subsidies” so that the relevance of the Convention is clear (Article 11).

The technical rationale (UNEP/CBD/SBSTTA/14/10, annex II) provides information on how the target can be implemented, starting with identification of subsidies harmful to biodiversity.

Target 4: By 2020, Governments and stakeholders, at all levels, have formulated, and begun to implement, sustainability plans to keep the use of resources within ecological limits.

Suggestions for modifications include:

- Including reference to the “*private sector*”, as well as “*Governments and stakeholders*”;
- For clarity, replacing “*sustainability plans*” by “*sustainable production and consumption plans*” (This was considered to be more widely understood and more measurable); others suggested “*sustainable production and consumption patterns*”;
- Specifying “*natural resources*” (including biological resources, and the use of other natural resources (water, land etc) that impacts on biodiversity);

- Specifying that use should be within “*safe ecological limits*”; others suggested that the term “ecological limits” is difficult to understand and measure;
- Reference should be made to “ecological footprint”.

It was explained that these last two concepts are complementary: the concept of *safe ecological limits* refers to limits beyond which there are significant risks of passing irreversible thresholds (or “tipping points”) in ecosystem functioning that would have significant adverse consequences. The concept of the *ecological footprint* relates to limits on the total resource use on the planet. There is a CBD indicator for this concept.

Further suggestions focused on the actions rather than plans, as in the following formulation: “By 2020, Governments, the private sector and stakeholders at all levels have *assessed* the impacts of their use of natural resources *and taken steps to promote* sustainable production and consumption, *reduce* their ecological footprints and *avoid* exceeding safe ecological limits.”

It was suggested that targets 2 and 4 should be considered together to avoid duplication and clarify the actors.

The Addis Ababa Principles and Guidelines for Sustainable Use were highlighted as a useful tool agreed by the Convention that could be a basic concept for the target, together with other concepts for sustainable use.

Strategic goal B. Reduce the direct pressures on biodiversity and promote sustainable use.

It was noted that the set of targets under this goal does not cover all the sectors that generate pressures on biodiversity. For example sectors such as energy, transport, and infrastructure development are not mentioned directly.

Target 5: By 2020, the loss and degradation of forests and other natural habitats is halved.

It was agreed that the target should refer to the “**rate of loss**”. It was noted that there needs to be a reference date (baseline) and a common definition of forests. Clarity with reference to net and gross deforestation is also needed. Reference to “fragmentation of natural habitats” was also suggested. Thus an alternative formulation is “*By 2020 the rate of loss, degradation and fragmentation of natural habitats including forests of high biodiversity value is halved*”

It was acknowledged that more data is available for forest than for most other natural habitats, and that forest extent is more easily monitored than forest degradation. However, indicators of the state of biodiversity (abundance of species, for example) could be used as a proxy.

It should be noted that related issues are under discussion in the UNFCCC and other forums.

Target 6: By 2020, overfishing is ended and destructive fishing practices are eliminated.

Some considered that the target as formulated is unrealistic and difficult to measure.

There were varying views as to whether or not to include, in the text of the target, specific reference to overfishing, destructive fishing practices, and illegal, unregulated and unreported fishing practices. An alternative formulation was considered as follows: “*By 2020, all exploited fish stocks and other living marine resources are harvested sustainably, and the impact of fisheries on marine and coastal ecosystems are within safe ecological limits.*”

It was noted that there are additional pressures, beyond fishing, on marine and coastal habitats, that could be addressed in this, or other targets.

Target 7: By 2020, all areas under agriculture, aquaculture and forestry are managed sustainably.

It was recognized that the target – for **all** areas to be managed sustainability – is highly ambitious, but, nevertheless, achievable from a scientific perspective.

One suggestion, instead of referring to “all areas”, is for the target to be “*By 2020, areas under agriculture, aquaculture and forestry that are managed sustainably are increased significantly*” or “*are increased by X%*”⁶. However, it was noted that there are additional difficulties in determining whether such targets have been met in that they require more data points and a clear baseline. There is also lack of clarity as to what would constitute “*significantly*”. Some consider that such percentage-based targets are not desirable since it is not necessary for any area to be under sustainable use.

An alternative modification considered to make the target more achievable is to replace “*are managed sustainably*” by “*meet minimum standards for sustainability and biodiversity protection*.” However, it was noted that such *minimum standards* are not universally recognized, may be difficult to measure, and may be taken to imply that all such areas would be under certification schemes which would be impractical and perhaps not desirable.

Another further alternative modification is to replace “*are managed sustainably*” by “*are managed with clear objectives for sustainable use including the conservation of biodiversity*”. It was considered that this would improve both the achievability and measurability of the target.

Concerning the scope of the target, some suggest it should be broadened to include all economic sectors (such as the energy and mining sectors, tourism) (i.e. “*By 2020, all terrestrial and marine areas under economic use and in particular agriculture, aquaculture and forestry*”). Others suggested that the target should be kept focused, noting that the proposed Target 4 already has a broader scope in referring to “sustainable production”.

The importance of the ecosystem approach was highlighted with respect to this target, and this could be reflecting by adding, at the end of the text: “*applying the ecosystem approach*”. Alternatively this could be included in the technical rationale.

Target 8: By 2020, pollution from excess nutrients and other sources has been brought below critical ecosystem loads.

Concerning the scope of the target, some suggest that it should be narrowed (specifying nitrogen and pollution), while others suggested it should be broadened to include other pollutants (including, for example, pesticides and insecticides). To include these other pollutants while also ensuring the relevance

⁶ The use of percentages can be very useful in making targets measurable, but they imply a geographical reference and data demands and need to be carefully formulated to avoid the possibility of perverse outcomes.

It was suggested that the use of percentages of increase (or decrease) has difficulties. Such measures require a reference date; information on the status for that date (baseline); and clear geographical reference. If this information is not available percentages cannot be measured. Percentages could be phrased as “current figure increased by X%”. However, because percentages are relative to previous figures, there are risks of unequal implications for different Parties and perverse outcomes. For example, if the initial figure is zero, a 50% or 100% increase would still yield zero. If a Party has already achieved a high level, then a certain percentage increase would require more effort than Parties with lower baselines.

In light of the above, absolute, rather than relative references may be preferred: “Z% of the total figure”, which can be up to 100% (i.e. “all”), if considered realistic. An alternative may be to add a formulation of “no less than y% of the total”

to the Convention, it was suggested to adjust the text as follows: “*By 2020, pollution from excess nutrients and other sources **affecting biodiversity** has been brought below critical ecosystem loads.*”

It was acknowledged that while, in some countries and for some pollutants, it may be difficult to determine “*critical ecosystem loads*”, for many pollutants, indicators are available, good monitoring is in place, and the target is measurable. In this context, it is noted that national targets would to be established, and specific indicators identified or developed.

Further alternative formulations were proposed such as “*By 2020, pollution from excess nutrients and other sources affecting biodiversity **has been reduced significantly***”, or “*..... **has been reduced by X%***”. However, it was noted that there are additional difficulties in determining whether such targets have been met in that they require more data points and a clear baseline. There is also lack of clarity as to what would constitute “*significantly*”.

Target 9: By 2020, pathways for the introduction and establishment of invasive alien species have been controlled, and established invasive alien species are identified, prioritised and controlled or eradicated.

No fundamental problems were identified with this target. In order to be more realistic the phrase “*pathways have been controlled*” could be replaced by “*measures are in place to control pathways*”. The term “*invasive alien species*” could be broadened to include taxa below the species level such as sub-species, populations and genotypes (consistent with earlier CBD decisions).

Thus an alternative formulation (reversing the order of the two main elements) could be “*By 2020, invasive alien species and genotypes are identified, prioritised and controlled or eradicated and measures are in place to control pathways for the introduction and establishment of invasive alien species **and genotypes***”. Both this, and the original formulation, received broad support in the group.

A number of important issues relevant to the implementation of measures to achieve the target were highlighted. These include the important role of early warning mechanisms, rapid response measures and management plans. The particular relevance of this target to island ecosystems was also highlighted. However, with a view to keeping the target reasonably concise and simple, these issues may be included in the supporting technical rationale rather than text of the target itself.

Target 10: By 2020, manage the multiple pressures on coral reefs and other vulnerable species and ecosystems impacted by climate change and ocean acidification so as to maintain their integrity and functioning.

Climate change and ocean acidification both result from increased atmospheric carbon dioxide. The target should perhaps refer to impacts from “*climate change **or** ocean acidification*”.

It was suggested that “*manage*” should be replaced by “*address*” or “*minimize*”. The latter would make the target more ambitious and consistent with the overall goal. It was further suggested that the formulation “*to have minimized*” would be more logical and consistent with other targets.

It was also suggested that:

- the scope of the target be more focused by referring to coral reefs and associated marine and coastal ecosystems (the latter including seagrass beds, mangroves etc), noting that species can be regarded as included in ecosystems. Some however considered that species should be referred to explicitly.
- the target be to “*maintain resilience*” or “*maintain biodiversity and ecosystem services*”, rather than

“maintain integrity and functioning”.

It was also suggested that the sentence might be reversed, putting more emphasis on the desired outcome (to *maintain the integrity and functioning of ecosystems/resilience/biodiversity/ecosystem services*) rather than the action of minimizing the pressures. This could also improve measurability of the target since there are relatively good indicators for the status of coral reefs and associated ecosystems but less information may be available on the multiple pressures on these ecosystems. On the other hand, keeping the focus on minimizing the pressures is consistent with the overall goal B.

In light of these points, possible formulations include:

“By 2020, maintain the integrity and functioning of coral reefs and associated marine and coastal ecosystems impacted by climate change and ocean acidification by minimizing the multiple pressures acting on these ecosystems”, and

“By 2020, to have minimized the multiple pressures on coral reefs and associated marine and coastal ecosystems impacted by climate change and ocean acidification so as to maintain biodiversity, resilience and ecosystem services.”

Strategic goal C. Safeguard ecosystems, species and genetic diversity.

Suggestions made on this text include: *“To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity”*, and *“Safeguard ecosystems, species and genetic diversity, for present and future generations.”* Some considered that the reference *“, for present and future generations”* may be better placed in the mission than in this specific goal.

Target 11: By 2020, at least 15% of land, freshwater and sea areas, including the areas of particular importance for biodiversity, have been protected through representative networks of effectively managed protected areas and other means, integrated into the wider land- and seascape.

Some considered that distinct targets should be set for terrestrial and marine areas, while others preferred a single target. Suggested targets for terrestrial areas are 10%, 15% and 20%, and for marine areas are 6%, 10% and 15%.

It was recommended that terms used be consistent with those in decision VII/28 and recommendation 14/-. It was also suggested to replace *“including”* by *“especially”* *“protected”* by *“safeguarded”* and add the concept of equitable management. Thus: *“By 2020, at least 15% of terrestrial, inland water and marine ecological regions, especially the areas of particular importance for biodiversity, have been safeguarded through ecologically representative comprehensive effectively and equitably managed protected area systems and other means, integrated into the wider land- and seascape.”* Others preferred the shorter original formulation and considered some of these terms to be too technical.

Further technical rationale on representativity was provided for annex II of UNEP/CBD/SBSTTA/14/10.

The importance of *“other means”* to complement protected areas was noted. Such other means could include indigenous lands, community conserved areas and other areas with management regimes consistent with the IUCN protected areas categories that may not always be recognized as official protected areas.. *“Other means”* may also include restrictions on activities that impact on biodiversity, which would allow for the safeguarding of sites in areas beyond national jurisdiction in a manner consistent with the jurisdictional scope of the Convention (article 4).

The importance of *connectivity* was highlighted. The challenge of safeguarding inland water ecosystems through protected areas was noted. For these ecosystems integrity and connectivity are more important than total area protected.

Target 12: The extinction of known threatened species has been prevented.

For precision, it was suggested that the qualifier “*for those species where feasible management solutions exist or can be developed*” be added to the text. However, most preferred the original, simpler text.

In order to include not only species threatened with extinction, the original text could be supplemented with the following. “*and recovery to non-threatened status has been achieved for at least 10% of known threatened species,*” or “*By 2020 the extinction and decline of known threatened species is halted*”

An alternative more precise formulation is “*In 2020 and after, no red list species, whose status has already been assessed and for whom feasible management solutions exist, will be included in the IUCN red list categories, Extinct or Extinct in the wild. Also in 2020 and after, the amount of already assessed species that enter each of the categories under the International Union for Conservation of Nature (IUCN), Critically endangered, Endangered, vulnerable and near threatened is not greater than the amount of species that leave each of the same IUCN red list categories.*”

The technical rationale should refer to baseline figures and IUCN categories: extinct (EX); Extinct in the wild (EW); Critically endangered (CR); Endangered (EN); Vulnerable (VU); Near threatened (NT); and Least Concern (LC).

It is understood that the target addresses human-caused extinctions, noting that some extinctions occur naturally.

Target 13: By 2020, the status of crop and livestock genetic diversity in agricultural ecosystems and of wild relatives has improved.

An alternative formulation is “*By 2020 the loss of crop and livestock genetic diversity in agricultural ecosystems and of wild relatives is halted.*”

It was suggested that the genetic diversity of wild plants and animals be included in this target, consistent with the overall goal, especially as it is the only target focusing on genetic diversity. For example, the following could be added: “*.....and strategies for safeguarding the genetic diversity of natural populations of wild animals and plants have been developed and implemented*”

It was suggested that priority should be given to “in situ” crops. It is understood that “*crops*” include all cultivated species (such as vegetables, fruit trees ...). The scope could be broadened to include “*other socio-economically valuable species*”

Strategic goal D: Enhance the benefits from biodiversity and ecosystems.

Two modifications were proposed: “*Enhance the benefits to all from biodiversity and ecosystem services*” (Noting that “*ecosystems*” are included within the definition of “*biodiversity*”)

Note: it was suggested that target 17 (on access and benefit sharing) could be included under goal D.

Target 14: By 2020, ecosystems that provide essential services, and contribute to local livelihoods, are identified and safeguarded or are being restored, and adequate and equitable access to essential ecosystem services is guaranteed for all, especially for indigenous and local communities and the poor and vulnerable.

It was recognized that the concept of ecosystem services is a valuable one and the need is to identify the essential ecosystem services rather than the ecosystems themselves. The term “*local livelihoods*” might be replaced by “*health, livelihoods and well-being*” so that the target is more general.

Taking these points into account, a possible formulation is: “*By 2020, essential ecosystem services, that contribute to health, livelihoods and well-being, are identified and safeguarded, and adequate and equitable access to them is guaranteed for all, especially for indigenous and local communities and the poor and vulnerable*”.

The challenge to measure and monitor progress towards this target was acknowledged. However, it was also noted that research work in this area is advancing fast.

Target 15: By 2020, the contribution of biodiversity to ecosystem resilience and to carbon storage and sequestration is enhanced, through conservation and restoration, including restoration of at least 15% of degraded lands, thereby contributing to climate change mitigation and adaptation and to combating desertification.

A simpler formulation was proposed: “*By 2020, the contribution of natural ecosystems to climate change mitigation and adaptation is significantly enhanced*” However, many considered it important to include the reference to ecosystem restoration.

It was noted that ecosystem resilience is based on biodiversity, and a reformulation of the first line was proposed. The term “*carbon storage and sequestration*” could be replaced by “*carbon storage*”. “*Degraded lands*” could be replaced by “*degraded ecosystems*” to include ecosystems important in this regard such as seagrass beds.

Taking these points into account a possible formulation is “*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% of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification*”

Strategic goal E. 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.

Given the importance of the participation of all stakeholders in planning processes, it was suggested that the word “*participatory*” be inserted before “*planning*”.

It was proposed that the goal include references to “*.....the provision of resources to developing countries, in particular least developed countries, small island developing states, as well as countries with economies in transition, capacity building, access to and transfer of technology ...*”

If target 17 were to be moved from this section to under goal D the reference to “*the fair and equitable sharing of the benefits arising from the use of genetic resources*”, could be deleted.

Target 16: By 2020, each Party has implemented an effective national biodiversity strategy, contributing to the achievement of the mission, goals and targets of the Strategic Plan.

Some suggested that the target is not needed since it is already provided for in Article 6 of the Convention and in the proposed decision by the Conference of the Parties at its tenth meeting. Others suggested that the added value of the target be clarified by referring to the development, updating, and adoption of the national strategies. Thus a possible text is: *“By 2020, each Party has developed, adopted and implemented, an effective, participatory and updated national biodiversity strategy and action plan, contributing to the achievement of the mission, goals and targets of the Strategic Plan.”*

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.

This target could be moved since it is perhaps more fits under to goal D (enhancing the benefits of biodiversity) than goal E (Implementation).

It was suggested that the word *“substantial”* might be deleted.

Other suggestions included reference to the following elements: *“all Parties shall have passed measures and policies on access and benefit-sharing taking into account Article 15.5 of the Convention”*, and *“the Governing Body of the ABS Protocol shall have regularly considered matters concerning access and benefit-sharing”*

Target 18: By 2020, traditional knowledge, innovations and practices are protected and their contribution to the conservation and sustainable management of biodiversity is recognized and enhanced.

It was suggested that reference to *“customary sustainable use of biodiversity”* be included in the target, consistent with recommendations of the Working Group on Article 8j and related provisions, and that terms be used consistent with Articles 8(j) and 10(c).

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.

It was suggested that *“value”* be replaced by *“values”*.

Alternative formulations include:

“By 2020, technologies related to biodiversity are widely transferred on preferential terms to developing countries, in particular least developed countries and countries with economies in transition” and

“By 2020, knowledge and technologies relating to biodiversity are improved, widely shared, and applied”

Target 20: By 2020, capacity (human resources and financing) for implementing the Convention has increased tenfold.

It was noted that the need for resources will vary quite substantially and that baseline information is limited. The proposed tenfold increase is an order-of-magnitude figure rather than a precise figure. As noted in the technical rationale, funds committed for climate change adaptation and for reducing emissions from deforestation and forest degradation, which have the potential to include substantial

biodiversity co-benefits, are at least an order of magnitude higher than funds currently committed for biodiversity.

An alternative proposal made is *“By 2020, capacity for implementing the Convention has increased at the minimum tenfold in terms of human resources (based on the current number of people in all sectors capable of implementing the Convention), and in terms of financing tenfold (based on levels that take into account previous commitments that have not been fulfilled and taking into account the recent replenishment period of the GEF and Articles 20, paragraph 2, and 21, paragraph 1 of the Convention) delivered adequately and in a timely manner to developing countries, in particular least developed countries, small island developing States, as well as countries with economies in transition, to achieve targets 1 -19”*.
