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### SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE

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Item 3.3 of the provisional agenda\*

### PROPOSALS FOR A CONSOLIDATED UPDATE OF THE GLOBAL STRATEGY FOR PLANT CONSERVATION

*Note by the Executive Secretary*

#### EXECUTIVE SUMMARY

The Global Strategy for Plant Conservation was adopted in 2002 with the ultimate goal of halting the current and continuing loss of plant diversity. In decision IX/3, the Conference of the Parties decided to consider the further development and implementation of the Strategy beyond 2010, taking into account current and emerging environmental challenges on plant diversity, including an update of the current targets within the broader context of and consistent with the new Strategic Plan beyond 2010. The Conference of the Parties further requested the Subsidiary Body on Scientific, Technical and Technological Advice to provide, prior to the tenth meeting of the Conference of the Parties, proposals for a consolidated update of the Global Strategy, taking into account the Plant Conservation Report, the third edition of the Global Biodiversity Outlook, the fourth national reports and additional inputs from the Global Partnership for Plant Conservation and other relevant organizations.

On the basis of a number of meetings and regional consultations, as well as contributions through an electronic forum and review comments, the Executive Secretary has prepared proposals for a consolidated update of the Global Strategy 2011-2020, including updates to the sixteen outcome-oriented targets. The Strategy should be viewed as a flexible framework within which national and/or regional targets may be developed, according to national priorities and capacities, and taking into account differences in plant diversity between countries. Its implementation is linked to the implementation of the new Strategic Plan of the Convention, which includes mechanisms enabling Parties and other stakeholders to achieve the targets, and the mobilization of the necessary resources is consistent with the Resource Mobilization Strategy of the Convention.

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\* UNEP/CBD/SBSTTA/14/1.

## SUGGESTED RECOMMENDATIONS

The Subsidiary Body on Scientific, Technical and Technological Advice may wish to recommend that the Conference of the Parties adopt a decision along the following lines:

### *The Conference of the Parties*

*Recognizing* the critical role of plants in supporting ecosystem resilience, provision of ecosystem services; adapting to and mitigating environmental challenges and for supporting human well being;

*Welcoming* the efforts made by some Parties in developing national responses and/or mainstreamed these targets, including the regional response from Europe to update the European Plant Conservation Strategy using the framework of this Strategy,

*Acknowledging* the efforts that have been put in place by partners, international organizations and other stakeholders to contribute to the achievement of the targets and build capacity for the implementation of the Strategy,

*Welcoming* the Plant Conservation Report, available in all the six United Nations languages, as a concise overview of the progress made in implementing the Strategy, and *recognizing* the contribution of the Government of Ireland to the preparation and dissemination of the Report,

*Aware* that while significant progress has been made in implementing the Strategy at all levels, further work will be necessary in the period beyond 2010 to achieve the goals set out in the Strategy,

1. *Decides* to adopt the consolidated update of the Global Strategy for Plant Conservation, including outcome-oriented global targets for 2011 - 2020, contained in the annex below, and to pursue the implementation of the Strategy as part of the broader framework of the Strategic Plan of the Convention beyond 2010;

2. *Emphasizes* that the outcome-oriented global targets for 2011–2020 should be viewed as a flexible framework within which national and/or regional targets may be developed, according to national priorities and capacities, and taking into account differences in plant diversity between countries;

3. *Notes* that while the consolidated update is technically and scientifically feasible, there is an urgent need to mobilize the necessary financial, technical and human resources and strengthen capacity and partnerships in order to achieve the targets of this Strategy consistent with the resource mobilization strategy of the Convention;

4. *Invites* Parties, other Governments, the financial mechanism, and funding organizations to provide adequate and timely support to the implementation of the Strategy, especially by developing country Parties, in particular the least developed countries and small island developing States among them, and Parties with economies in transition;

5. *Emphasizes* the need for capacity-building, particularly in developing country Parties, in particular the least developed countries and small island developing States among them, and Parties with economies in transition, to facilitate implementation of the Strategy;

6. *Invites* Parties and other Governments to:

(a) Develop or update national and/or regional targets, and, as appropriate, to incorporate them into relevant plans, programmes and initiatives, including national biodiversity strategies and action plans, and to align the further implementation of the Strategy with national and/or regional efforts to implement the Strategic Plan of the Convention beyond 2010; and

(b) Appoint national focal points for the Strategy to enhance national implementation;

7. *Also invites* relevant international and regional organizations to:
  - (a) Endorse the updated Strategy and to contribute to its implementation, including by promoting common efforts towards halting the loss of plant diversity;
  - (b) Support national and regional efforts to achieve the targets of the Strategy through facilitation of capacity-building, technology transfer, information exchange and resource mobilization.
8. *Decides* to undertake a mid-term review of the consolidated update of the Strategy in 2015, in tandem with the mid-term review of the Strategic Plan of the Convention and the review of the achievement of the Millennium Development Goals;
9. *Requests* the Executive Secretary to seek the resources necessary for the establishment of a position at the Secretariat to strengthen the coordination and support towards the implementation of the Strategy beyond 2010;
10. *Further requests* the Executive Secretary, in collaboration with the Global Partnership for Plant Conservation and other partners and relevant organizations, and subject to the availability of the necessary resources to:
  - (a) Undertake further work, through the flexible coordination mechanism, on developing the milestones and indicators for the updated Strategy and measures for enhanced national implementation of the Strategy and integrate the implementation of the Strategy with other programmes and initiatives of the Convention, including harmonization with the new Strategic Plan and its implementation measures;
  - (b) Develop, by 2012, an online version of the GSPC toolkit, using the outline developed by the third meeting of the Liaison Group and contained in the annex to the report of that meeting, to facilitate and promote the development and updating of national and regional responses and to enhance national/regional implementation;
  - (c) Organize regional training workshops on national and regional implementation of the Strategy, as much as possible, in conjunction with other relevant workshops; and facilitate awareness raising, exchange of information and capacity-building for the Strategy beyond 2010;
11. *Expresses its appreciation* to the Government of Ireland, the Global Partnership for Plant Conservation, Botanic Gardens Conservation International (BGCI), Royal Botanic Gardens Kew, Chicago Botanic Gardens, and Durban Botanic Gardens, for supporting activities related to the development of the updated Strategy as well as The Boeing Company for supporting regional meetings;
12. *Expresses its gratitude* to Botanic Gardens Conservation International for the secondment of a Programme Officer to the Secretariat to support the implementation of the Strategy up to 2010.

## I. INTRODUCTION

1. In line with the multi-year programme of work of the Conference of the Parties up to 2010, adopted through decision VII/31, an in-depth review of the Global Strategy was carried out, in 2008. As a result of the findings of the in-depth review, in decision IX/3, the Conference of the Parties decided to consider the further development and implementation of the Strategy beyond 2010, taking into account current and emerging environmental challenges on plant diversity, including an update of the current targets within the broader context of and consistent with the new Strategic Plan beyond 2010, taking into account national priorities and circumstances, capacities and differences in plant diversity between countries.

2. In response, the Executive Secretary has undertaken various activities including meetings, consultations and peer reviews in order to consolidate views and inputs from a broad range of stakeholders as a basis for developing the proposals for an update to the Strategy beyond 2010. The outcomes of these activities are summarized in section II of this note. The draft updated Strategy is contained in the annex to this note. A brief technical rationale for each target and justification for the change from the previous Strategy are included in the appendix to guide the discussions. The full terms and technical rationale, an assessment of the progress towards the target until 2010 and possible milestones are contained in an information note (UNEP/CBD/SBSTTA/14/INF/16).

## II INPUTS TO THE DEVELOPMENT OF THE CONSOLIDATED UPDATE OF THE GLOBAL STRATEGY FOR PLANT CONSERVATION BEYOND 2010

3. In preparation for the ninth meeting of the Conference of the Parties, an in-depth review of the progress in the implementation of the Global Strategy for Plant Conservation was conducted by the Subsidiary Body on Scientific, Technical and Technological Advice and the key messages resulting from the review transmitted to the Conference of the Parties by the Subsidiary Body in paragraph 1 of its recommendation XII/2 (UNEP/CBD/COP/9/2, annex). The in-depth review noted that while notable progress had been achieved with respect to targets 1, 5, 8, 9, 11, 14, 15, 16 and limited progress for targets 2, 4, 6, 10, 12; there were gaps in achieving targets 3 and 7. The analysis carried out for the in-depth review formed the basis of discussions through various consultations and meetings summarized below.

### A. *Outcomes from the online consultation on the Strategy beyond 2010*

4. In order to gather a broad range of responses from stakeholders and Parties as a basis for defining the next steps for GSPC as well as prepare the third GSPC Liaison Group Meeting, the Executive Secretary conducted an online consultation from 1 to 30 April 2009. The outcomes of the consultation are summarized in the background document for the Liaison Group Meeting ([UNEP/CBD/LG-GSPC/3/2](#)).

5. The online consultation addressed all the components of GSPC and comprised general questions, targeting all stakeholders, and questions regarding the update/review and/or further development of the existing targets.

6. The consultation indicated a preference for a time-frame of 10 years for the new phase of GSPC, with a long-term vision to provide the context at global, regional and national level; medium-term goals that are high level and unlikely to change with time as well as short-term objectives (targets) that define immediate priorities for implementation by different stakeholders. While it was recognized that the five current sub-objectives were robust enough to support the development of national and regional targets, in considering the update of GSPC beyond 2010, a need to make provision for gaps in the current framework was stressed.

7. Further, the consultation indicated that while the Strategy had been effective in providing a framework for implementation at the global, regional and national level, supporting the ecosystem approach, and employing *in situ* conservation as the primary approach for conservation and supporting national inventories; it was less effective in applying the provisions on access and benefit-sharing and implementing Article 8(j); facilitating effective mainstreaming at national level and engaging with local indigenous and local communities.

8. The respondents emphasized that there was need to (i) define the targets better, improve clarity and reduce ambiguity in targets; (ii) ensure that all targets are SMART (Specific, Measurable, Achievable, Relevant and Time-bound) to enable monitoring and evaluation and assess impact of the Strategy in the medium and long term; (iii) define baselines for monitoring, and define milestones, indicators and sub-targets where needed, beyond 2010. It was also noted that targets 3, 13, 14, 15 and 16 were open-ended and difficult to measure and monitor and could be categorized as more aspirational than measurable. In addition, the potential impact of climate change created a particular urgency to achieve certain targets (e.g. targets 2, 7, 9 and 10); justification for investment in the some targets at national and regional level (e.g. targets 8, 9,13); and the basis for reviewing some target thresholds upwards (e.g., targets 4, 5, 6, 12, 14 and 15).

9. With regard to the update and/review of targets, the online consultation supported maintaining targets 1, 11, 14 and 16; improve measures for implementation of targets 2, 3, 5, 6, 7, 8, 9, 12, 13 and 15 while targets 4 and 10 needed further review and update. Overall, there was no support for establishment of new targets.

10. In general, the consultation emphasized the need to: (i) keep the updated strategy simple and focused; (ii) focus and pursue the current five objectives of GSPC with appropriate review to capture emerging issues and define short, medium and long-term goals; (iii) ensure that the implementation process effectively engaged all key stakeholders, including indigenous and local communities, business and media; (iv) intensify efforts to address challenges of research and knowledge gaps, limited resources, tools and capacities; (v) ensure that the current targets are not changed substantially as they have already been mainstreamed and adopted at national, regional and global levels (vi) provide mechanisms that facilitate the incorporation of indigenous and local knowledge, innovations, practices and technologies associated with plant diversity; (vii) ensure the human and financial resource constraints that hampered the effective implementation of the previous Strategy are addressed in the early stages; (viii) integrate and harmonize the elements of the Strategy with the updated strategic plan and resource mobilization Strategy as well other programmes of work and initiatives of the Convention; and, (ix) note that while the Strategy may be developed for a 10-year period, a review should be made in 2015, in tandem with the review of the Millennium Development Goals.

### ***B. Outcomes from the third meeting of the Liaison Group for the GSPC***

11. The third meeting of the GSPC Liaison Group, Dublin, from 26 to 28 May 2009 reviewed the outcomes of the online consultations, the Plant Conservation Report, and further guidance from ongoing discussions on the Strategic Plan. The meeting developed a vision for the updated Strategy, reviewed the rational, objectives, scope, general principles and further work and reviewed of the targets. The report of the meeting is available on the website of the Secretariat ([UNEP/CBD/LG-GSPC/3/4](#)). The Liaison Group developed the first draft of the proposal for a consolidated update of the Strategy and annexed it to the report, which was made available for peer-review on the website of the Secretariat from August to October 2009 in the form of an unedited advance draft. Responses were received from eight Governments, eight international organizations and four other stakeholders. The draft was also made available to the regional consultations taking place in the framework both of the GSPC update and the update of the Strategic Plan of the Convention.

### *C. Outcomes from regional meetings*

12. Two regional meetings, organized in collaboration with BGCI, and with support from The Boeing Company, were held to review the draft proposals from the Liaison Group meeting. The Regional Workshop for America, held from 30 September to 1 October 2009 at the Chicago Botanic Gardens, reviewed the draft using the following criteria: Clarity, Scope, “SMART-ness”, Milestones and Indicators, Linkages to other initiatives and resources and Gaps. The recommendations from the meeting were then incorporated into the draft document. The Regional Workshop for Africa was held in Durban, South Africa, from 3 to 4 November 2009. It brought together invited experts in plant conservation and focused on the gaps and inconsistencies in the draft applying the same criteria and it made further recommendation on the scope and milestones of the draft document. The reports of the regional meetings are available as information documents (UNEP/CBD/SBSTTA/14/INF/17) and (UNEP/CBD/SBSTTA/14/INF/18).

### *D. Contributions from other meetings*

13. Two other meetings reviewed the draft updated Strategy and submitted additional input to the Executive Secretary. These include a national workshop on the Strategy held on 26 October 2009 in Ankara, and the fifth European Botanic Gardens Congress (Eurogard V) held from June 8 to 12 2009 in Helsinki.

### *E. Drafting meeting*

14. With support from the Government of Ireland and the Royal Botanic Gardens Kew, a drafting meeting (RBG Kew, 21-22 January, 2010) reviewed the inputs from the peer-review and regional meetings and made provided guidance on the update to the Strategy beyond 2010. The meeting agreed the vision, objectives and revised targets as well as the elements of the technical rational and justification for change as elaborated in the annex.

15. The meeting also emphasized the role of the flexible coordination mechanism and the need to harmonize and align the Strategy with the updated Strategic Plan of the Convention beyond 2010 as well as other programmes of work and initiatives of the Convention. In addition, the meeting emphasized the need for further work to review and harmonize the indicators and milestones and develop a monitoring framework for the Strategy beyond 2010, which should be linked to the monitoring framework of the Strategic Plan. It was also highlighted that the implementation of the current strategy was constrained by limited funding, the lack of training workshops and the limited support available to the Secretariat of the Convention on Biological Diversity. The mechanisms to support implementation of the Convention contained in the new Strategic Plan of the Convention should be equally available for the implementation of the Global Strategy for Plant Conservation.

*Annex*

**PROPOSALS FOR AN UPDATED GLOBAL STRATEGY FOR PLANT CONSERVATION  
2011-2020**

**A. VISION**

*Without plants, there is no life. The functioning of the planet, and our survival, depends upon plants.  
The Strategy seeks to halt the continuing loss of plant diversity.*

1. Our vision is of a positive, sustainable future where human activities support the diversity of plant life (including the endurance of plant genetic diversity, survival of plant species and communities and their associated habitats and ecological associations), and where in turn the diversity of plants support and improve our livelihoods and well-being.
2. The Global Strategy for Plant Conservation is a catalyst for working together at all levels - local, national, regional and global - to understand, conserve and use sustainably the world's immense wealth of plant diversity whilst promoting awareness and building the necessary capacities for its implementation.

**B. OBJECTIVES**

3. The goal of the Global Strategy for Plant Conservation is to address the challenges posed by threats to plant diversity. While the overall purpose of the Strategy is conservation, sustainable use of plant diversity, access and benefit-sharing are equally important to its purpose, taking into consideration Article 8(j) of the Convention.
4. The implementation of the Strategy should be considered within the broader framework of the Strategic Plan 2011-2020 of the Convention considering that the pressures on biodiversity and the underlying causes of biodiversity loss affect plants as much as other components of biodiversity. Similarly, the mechanisms required to enable Parties, partners and other stakeholders to effectively implement the Convention and to monitor progress in implementation under the New Strategic Plan for the Convention beyond 2010 will be also relevant for this Strategy.
5. The Strategy consists of the following five objectives:
  - (a) Objective I: Plant diversity is sufficiently understood, documented and recognized;
  - (b) Objective II: Plant diversity is urgently and effectively conserved;
  - (c) Objective III: Plant diversity is used in a sustainable and equitable manner;
  - (d) Objective IV: Education and awareness about plant diversity, its role in sustainable livelihoods and importance to all life on Earth is promoted;
  - (e) Objective V: The capacities and public engagement necessary to implement the Strategy have been developed.

**C. RATIONALE FOR THE STRATEGY**

6. Plants are universally recognized as a vital component of the world's biological diversity and an essential resource for the planet. In addition to the cultivated plant species used for food, timber and

fibres, many wild plants have great economic and cultural importance and potential, as future crops and commodities more so as humanity grapples with the emerging challenges of environmental and climate change. Plants play a key role in maintaining the planet's basic environmental balance and ecosystem stability and provide an irreplaceable component of the habitats for the world's animal life. At present, a complete inventory of the plants of the world has not been assembled, but it is estimated that the total number of vascular plant species may be of the order of 400,000.

7. Of urgent concern is the fact that many plant species, communities, and their ecological interactions, including the many relationships between plant species and human communities and cultures, are in danger of extinction, threatened by such human-induced factors as climate change, habitat loss and transformation, over-exploitation, alien invasive species, pollution, clearing for agriculture and other development, *inter alia*. If this loss is not stemmed, countless opportunities to develop new solutions to pressing economic, social, health and industrial problems will also be lost. Furthermore, plant diversity is of special concern to indigenous and local communities, and these communities have a vital role to play in addressing the loss of plant diversity.

8. If efforts are made at all levels to fully implement this updated Strategy: (i) Societies around the world will be able to continue to rely upon plants for ecosystem goods and services, including food, medicines, clean water, climate amelioration, rich, productive landscapes, energy sources, and a healthy atmosphere; (ii) humanity will secure the ability to fully utilize the potential of plants to mitigate and adapt to climate change recognizing the role of plant diversity in maintaining the resilience of ecosystems; (iii) the risk of plant extinctions because of human activities will be greatly diminished, and the genetic diversity of plants safeguarded; (iv) the rich evolutionary legacy of plant diversity will be used sustainably and benefits arising are shared equitably to solve pressing problems, support livelihoods and improve human well-being; (v) the knowledge, innovations and practices of indigenous and local human communities that depend on plant diversity will be secure and recognized; and (vi) people everywhere will be aware of the urgency of plant conservation and will understand that plants support their lives and that everyone has a role to play in plant conservation.

#### **D. SCOPE AND GENERAL PRINCIPLES OF GSPC**

9. The Strategy applies to the three primary levels of biological diversity as recognized by the Convention, hence plant genetic diversity, plant species and communities and their associated habitats and ecosystems.

10. Accordingly, the Strategy addresses the Plant Kingdom with main focus on higher plants, and other well-described groups such as Bryophytes and Pteridophytes. This does not imply that these lower groups do not have important ecological functions, nor that they are not threatened. Parties may choose on a national basis to include other taxa, including algae, lichens and fungi. The strategy considers plants in the terrestrial, fresh water and marine environments.

11. The sixteen outcome clear, stable, long-term targets adopted at global level provide guidance for setting national plant targets. These targets are to be understood in a pragmatic rather than a literal way. They aim to be strategic, rather than comprehensive. Regional components of the Strategy might be developed, perhaps using a biogeographical approach.

12. The implementation of the Strategy should be considered within the broader framework of the Strategic Plan 2011-2020 of the Convention. The pressures on biodiversity and the underlying causes of biodiversity loss affect plants as much as other components of biodiversity. Also the mechanisms required to enable Parties and other stakeholders to effectively implement the Convention and to monitor progress in implementation are needed for the conservation and sustainable use of plants. These elements covered in the Strategic Plan 2011-2020 or therefore not detailed for the updated Global Strategy for Plant



Conservation but should be seen as complementary components that are essential for the effective implementation of the Strategy.

## **E. THE TARGETS – 2011-2020<sup>1</sup>**

### ***Objective I: Plant diversity is sufficiently understood, documented and recognized***

Target 1: An online Flora of all known plants.

Target 2: An assessment of the conservation status of all known plant species to guide conservation action.

Target 3: Information and methods necessary to implement the Strategy developed and shared.

### ***Objective II: Plant diversity is urgently and effectively conserved***

Target 4: At least 10 per cent of each ecological region or vegetation type secured through effective management and/or restoration.

Target 5: At least 75 per cent of the most important areas for plant diversity protected with effective management in place for conserving plants.

Target 6: At least 50 per cent of production lands in each sector managed sustainably, consistent with the conservation of plant diversity.

Target 7: At least 75 per cent of threatened species conserved *in situ*.

Target 8: At least 75 per cent of threatened plant species in *ex-situ* collections, preferably in the country of origin, and at least 20 per cent available for recovery and restoration programmes.

Target 9: 70 per cent of the genetic diversity of crops and other socio-economically valuable plant species conserved, and associated indigenous and local knowledge maintained.

Target 10: Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded.

### ***Objective III. Plant diversity is used in a sustainable and equitable manner***

Target 11: No species of wild flora endangered by international trade.

Target 12: All wild harvested plant based products sourced sustainably.

Target 13: The decline of indigenous and local knowledge innovations and practices, associated with plant resources halted, to support sustainable livelihoods, local food security and health care.

### ***Objective IV: Education and awareness about plant diversity, its role in sustainable livelihoods and importance to all life on earth is promoted***

Target 14: The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes

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<sup>1</sup> Terms and technical rationale and Justification for change for each target are provided in the appendix hereto.

***Objective V: The capacities and public engagement necessary to implement the Strategy have been developed***

Target 15: The number of trained people working with appropriate facilities sufficient according to national needs, to achieve the targets of this Strategy.

Target 16: Networks (and partnerships for plant conservation established or strengthened at national, regional and international levels to achieve the targets of this Strategy.

## **F. IMPLEMENTATION OF THE STRATEGY**

13. Measures to implement the Strategy will need to be put in place at international, regional, national, and subnational levels. This may include development of national targets and their incorporation into relevant plans, programmes and initiatives, including national biodiversity strategies and action plans. National targets will vary from country to country according to differences in levels of plant diversity and national priorities. Multilateral and bilateral funding agencies should consider putting in place policies and procedures to ensure that their funding activities are supportive of and do not run counter to the strategy and its targets.

14. The Strategy should be implemented in harmony with the updated Strategic Plan of the Convention beyond 2010 and with other programmes of work and initiatives of the Convention. In addition, it will be necessary to develop a monitoring framework for the Strategy beyond 2010 including a review and harmonization of the indicators and milestones consistent with the processes under the 2010 biodiversity indicators framework of the Convention.

15. In order to ensure that progress in implementation is not constrained by limited funding and lack of training workshops there will be a need to backstop the updated strategy with sufficient human, technical and financial resources in order to achieve the targets by 2020. Therefore, in addition to the Parties to the Convention, further development and implementation of the strategy should involve a range of actors, including: (i) International initiatives (e.g., international conventions, intergovernmental organizations, United Nations agencies, multilateral aid agencies); (ii) members of the Global Partnership for Plant Conservation, (iii) conservation and research organizations (including protected-area management boards, botanic gardens, gene banks, universities, research institutes, non-governmental organizations and networks of non-governmental organizations); (iv) communities and major groups (including indigenous and local communities, farmers, women, youth); (v) Governments (central, regional, local authorities); and (vi) the private sector.

## Appendix

**TERMS AND TECHNICAL RATIONALE FOR THE TARGETS<sup>2</sup>*****Objective I: Plant diversity is sufficiently understood, documented and recognized******Target 1: An online Flora of all known plants***

1. *Terms and technical rationale:* The previous target 1 aimed to develop “a widely accessible working list of known plant species as step towards a complete world flora” and this target has almost been achieved covering about 85 per cent of plants. While completion of the working list will continue the focus now is to enhance the list to make it more useful, accessible and functional for end users by progressing to the second part of the 2010 target – ‘as a step towards a complete flora’. This may include developing more complete synonymy; updating geographic distributions to country level drawing on national floras, checklists and international initiatives; inclusion of basic identification tools (keys, pictures and basic descriptions) and inclusion of local and vernacular names where feasible. This target is linked to the Global Taxonomy Initiative.

2. *Justification for change:* The focus of the new target is to address the second half of the original target – a complete world flora, having made considerable progress in developing about 85 per cent of the working list by 2010.

***Target 2: An assessment of the conservation status of all known plant species to guide conservation action***

3. *Terms and technical rationale:* Implementing this target is a priority at national and regional level as it forms the baseline for conserving threatened species *in situ* (target 7) and (target 8) and defining priority areas for conservation (targets 5 and 10). Given the threat of climatic and environmental changes, species of socio economic importance may also be prioritized to help guide activities under targets 9, 12 and 13. “Evidence-based” assessments are recommended based on data which are verifiable, making the assessment potentially refutable and repeatable by other experts as well as an objective basis for further investment. The IUCN Red List Categories and Criteria provide a robust framework for this endeavour. However, since the proportion of plants assessed globally is still under 10 per cent, this approach will need to be complemented drawing upon a wider range of assessments at national, regional and global levels (see <http://www.regionalredlist.com/site.aspx>). At global level, prioritization may be useful to provide a global picture of trends such as through assessments of representative samples of plant species (see <http://threatenedplants.myspecies.info/> and <http://www.kew.org/gis/projects/srli/index.html>).

4. *Justification for change:* The focus of the current Strategy is to “guide conservation action” and therefore these words have been added to the target. The geographical qualifiers have been removed from the original target wording indicating that while work will draw upon the ongoing assessments at national, regional and international levels these may be complemented with evidence-based assessments where immediate conservation decisions are required.

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<sup>2</sup> The *Terms and technical rationale* and *Justification for change* are included to facilitate further discussion of the targets. It is not proposed that these should be adopted in line with paragraph 1 of the suggested recommendations. More detailed explanations are contained in the information note (UNEP/CBD/SBSTTA/14/INF/16).

*Target 3: Information and methods necessary to implement the strategy developed and shared*

5. *Terms and technical rationale:* Conservation biology research, methods and practical techniques for conservation are fundamental to the conservation of plant diversity and the sustainable use of its components. These can be applied through the development and effective dissemination of relevant information, tools and case-studies based on the results of existing and new research and practical experience of management. Key areas where the development of guidance and advice is required include: the integration of *in-situ* and *ex-situ* conservation; maintenance of threatened plants within ecosystems; applying the ecosystem approach; balancing sustainable use with conservation; methods for setting conservation priorities; and methods for monitoring conservation and sustainable use activities.

6. *Justification for change:* The wording of this target has been revised to improve clarity and reduce ambiguity by replacing “models and protocols” with “information and methods”. There was also no mention of sharing or making information accessible in the original target wording and so new wording has been proposed to address the aspect of effective sharing of available information.

***Objective II: Plant diversity is urgently and effectively conserved***

*Target 4: At least 10 per cent of each ecological region or vegetation type secured through effective management and/or restoration*

7. *Terms and technical rationale:* The core of this target is about the conservation of ecosystems, national and/or regional level. Since some ecological regions will include ecological networks or protected areas covering more than 10 per cent of their area, the qualifier “at least” is used. Ecological regions are understood to mean large areas of land or water that contain a geographically distinct assemblage of natural communities, that share a large majority of their species, ecological dynamics and environmental conditions, and interact ecologically in ways that are critical for their long-term persistence. Effective management means that the area is managed to ensure the persistence of the vegetation, and associated biotic and abiotic components. The target now also includes undertaking restoration work in degraded ecosystems to enhance their conservation status and improve delivery of ecosystem services in tandem with securing plant diversity. The linkage between this target and the relevant targets within the programme of work on protected areas needs to be emphasized.

8. *Justification for changes:* The term “vegetation type” has been added to the target text to enable use of the relevant available consistent classification system at national and/or regional level. In addition, “restoration” has been added to the target to emphasize the need to go beyond protection to ensuring ecosystem resilience in the face of environmental change. The new rationale also seeks to clarify the difference between this target and target 5.

*Target 5: At least 75 per cent of the important areas for plant diversity protected with effective management in place for conserving plants*

9. *Terms and technical rationale:* This target has two components – identifying the areas important for plant diversity and then ensuring effective protection of at least 75 per cent of these areas. The longer term goal is the protection of 100 per cent of all important areas for plant diversity, including enlarging or connecting the areas, as appropriate or possible, to combat threats, especially those associated with climate change. The most important areas for plant diversity can be identified according to a set of criteria including endemism, species richness, and/or uniqueness of habitats, including relict ecosystems, also taking into account the provision of ecosystem services. Protection can be assured through effective conservation measures, including, but not limited to, protected areas. The key challenge will be to ensure that appropriate management measures are taken to maintain and enhance plant diversity.

10. *Justification for changes:* The threshold of this target has been moved upwards from at least 50 per cent to at least 75 per cent reflecting an indication of the level of effort needed if the long-term vision of this Strategy and relevant targets in the new Strategic Plan are to be achieved. In addition, the need for “effective management in place” for conserving plant has been included in the target to ensure that we progress from identifying and mapping these areas to actual conservation action in line with the updated programme of work on protected areas under the Convention on Biological Diversity.

*Target 6: At least 50 per cent of production lands managed sustainably, consistent with the conservation of plant diversity*

11. *Terms and technical rationale:* The ultimate goal is for all production lands to be managed sustainably, without impacts on plant diversity or areas important for plant diversity. For the purpose of the target, “production lands” refer to lands where the primary purpose is agriculture including horticulture, grazing, or wood production. The sectors to be considered under this target include, *inter alia*, croplands, pasture, forestry, including harvesting of non-timber forest products, and aquaculture. “Consistent with conservation of plant diversity” implies that a number of objectives are integrated into the management of such production lands: (i) the conservation of plant diversity including genetic diversity; (ii) protection of other plant species in the production landscape that are unique, threatened, or of particular socio-economic value; and (iii) use of management practices that avoid significant adverse impacts on plant diversity in surrounding ecosystems. The target therefore encourages use of good agricultural practices and reduced intensification in agriculture and forestry. Further work may be needed to develop sector specific sub-targets as a basis for monitoring progress in achieving this target.

12. *Justification for change:* The threshold for this target has been increased from 30 per cent to 50 per cent reflecting an indication of the level of effort needed if the long-term vision of this Strategy and relevant targets in the new Strategic Plan are to be achieved.

*Target 7: At least 75% of threatened species conserved in situ*

13. *Terms and technical rationale:* The long-term goal for this target is the effective *in situ* conservation of all threatened species, now more urgently needed because of the increasing threat of environmental change. “Conserved *in situ*” is here understood to mean that biologically viable populations of these species occur in at least one protected area or the species is effectively managed outside the protected area network, e.g. as part of a management plan. “Effective conservation” implies the need to consider (i) the genetic diversity of the species; and (ii) potential impact of climate change, for example by determining whether the protected area network includes corridors, altitudinal gradients, or the presence of multiple habitats to facilitate species movement.

14. *Justification for change:* The target percentage has been increased from to 75 per cent reflecting an indication of the level of effort needed if the long-term vision of this Strategy and relevant targets in the new Strategic Plan are to be achieved. The word “worlds” threatened species has been removed in order to focus implementation efforts at national and regional level.

*Target 8: At least 75% of threatened plant species in ex situ collections, preferably in the country of origin, and at least 20% available for recovery and restoration programmes*

15. *Terms and technical rationale:* This target aims at a comprehensive programme of *ex-situ* conservation that complements *in-situ* conservation through use of genetically representative collections and measures to mitigate threats in the wild and/or strengthen responses to the potential impacts of climate change. Priority may be given to developing genetically representative collections of the most critically threatened species. The *ex-situ* collections should be accessible, backed up, genetically representative and should preferably be in the country of origin. However, this could also include

conservation measures undertaken in another country on behalf of the relevant authorities (e.g. seed banks). Where possible, resources could also be focused on lower taxa at infraspecific level. However, there is a need to ensure an increase in the percentage of species available in recovery and restoration programmes so as to allow for evolution and adaptation, especially in the face of growing environmental change.

16. *Justification for change:* The threshold for this target has been raised to 75 per cent to ensure that threatened species, many of which already reduced to very small population and therefore vulnerable to environmental change are secured to reduce the threat of extinction. In turn, the percent of species to be available for recovery and/or restoration programmes has also been increased. Note however that the words “Available for” has replaced the words “include in”, since species reintroduction is not always necessary or appropriate.

*Target 9: 70 per cent of the genetic diversity of crops and other socio-economically valuable plant species conserved, and associated indigenous and local knowledge maintained*

17. *Terms and technical rationale:* The conservation of genetic diversity of major crops is catered for under the International Treaty for Plant Genetic Resources for Food and Agriculture. However, the same is not the case for other socio-economically important species, including those of local importance. These priority species here may include medicinal plants, non-timber forest products, local land races, wild relatives of crops, and neglected and underutilized plant resources which may become the crops of the future, providing options for many communities to adapt and survive environmental change. The species may be prioritized at national and regional level on a case-by-case basis, according to national priorities recognizing the potential impact of environmental change on food and local livelihood security. Through the combined actions of countries, some 2,000 or 3,000 species could be covered in all. The other crucial component of this target at national and/or regional level, working with local communities, is to maintain the associated indigenous and local knowledge in line with Target 13.

18. *Justification for change:* 70 per cent of the genetic diversity of major species is already conserved *ex situ*. Therefore the word “major” has been removed from the text. This sets a significant new challenge in expanding the number of species from a few hundred to many thousands. The threshold of 70 per cent has therefore not been increased.

*Target 10: Effective plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded*

19. *Terms and technical rationale:* This target addresses biological invasions which are brought about by combinations of alien species (of plants, animals or micro-organisms) and the reactions of ecosystems or habitats – rather than by species dubbed “invasive” which may not always become invasive when introduced to new localities, ecosystems or habitats. Management plans need to be designed (using the ecosystem approach) to redress damage done to plants and/or their communities and to restore ecosystem functions, goods and services. This requires that target ecosystems/habitats be defined, in this case as “important areas for plants”. Climate change will enhance the spread and impact of invasive alien species, hence future work on this target should ensure that there is adequate preparedness and that management plans should include options for adaptation to climate change.

20. *Justification for change:* This target is revised and substantively different from the previous target to make to focus national or regional implementation efforts. The emphasis has also been changed to address the phenomenon rather than species hence the removal of the term “alien species” (interpreted as “invasive species”) and its replacement by the phenomena of “biological invasions”.

### **Objective III. Plant diversity is used in a sustainable and equitable manner**

*Target 11: No species of wild flora endangered by international trade*

21. *Terms and technical rationale:* This target remains unchanged and is consistent with the main purpose of the CITES Strategic Plan: “No species of wild flora subject to unsustainable exploitation because of international trade”. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) provides an international framework for the protection of wild flora threatened by international trade. This target is unique in the context of the Strategy in that its implementation, monitoring and review is through synergy with the CITES Convention under its’ Plants Committee.

*Target 12: All wild harvested plant-based products sourced sustainably*

22. *Terms and technical rationale:* This target is consistent with the second objective of the Convention on sustainable use and hence long-term goal is to achieve sustainable sourcing of all naturally occurring plant resources. “Plant-based products” harvested from wild sources include food products, timber, wood-based products, fibre products, ornamental, medicinal and other plants for direct use. “Sourced sustainably” aims at ensuring that management practices at supply end integrate social and environmental considerations, such as the fair and equitable sharing of benefits and the participation of indigenous and local communities. The value addition and further processing needs to aim at ensuring reducing wastage and ensure that whole trade chain enhances efficiency to reduce impact on wild populations. There may be need for further work under this target to develop sector specific sub targets.

23. *Justification for change:* This target has been changed to improve clarity and focus, and make it consistent with the second objective of the Convention on sustainable use. The use of the term “wild harvested” in the text of the target aims to clarify the scope of this target compared to target 6.

*Target 13: The decline of indigenous and local knowledge, innovations and practices, associated with plant resources halted, to support sustainable livelihoods, local food security and health care*

24. *Terms and technical rationale:* This target focuses on securing the knowledge base of plant resources used to secure livelihoods, food security and health care especially for local and indigenous communities. This measure is incorporated to ensure that future generations accessing the resources can continue to benefit from their use. The target therefore addresses the decline and should be implemented consistent with the Convention’s programme of work on Article 8(j) and related provisions. As a complement to Target 9, implementation of this target may become beneficial in the long run in helping local and indigenous communities to adapt to emerging environmental challenges.

*Justification for change:* Target 13 in its original wording had two components – the decline of plant resources and maintaining associated indigenous knowledge, innovations and practices. As such, the target has been simplified and focused with the aim of linking clearly to Article 8(j) and its provisions while the other targets focus on securing plant diversity.

### **Objective IV: Education and awareness about plant diversity, its role in sustainable livelihoods and importance to all life on earth is promoted**

*Target 14: The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes*

*Terms and technical rationale:* Whilst no change in the target wording has been made, there is an urgent need to effectively communicate the updated of the Strategy and reach important sectors, including

indigenous and local communities, the business sector, media and policy makers. There is also need to refocus the communication strategy to address livelihoods, ecosystem products and services. The target also refers to both informal and formal education at all levels, including primary, secondary and tertiary education. The publication of the GSPC brochure and its translation into 10 languages was a key achievement with the previous strategy, allowing easy access to the text for policy makers and other partners and stakeholders while the plant conservation report provided a useful reference for policy-makers and the general public. Similar approaches and tools may be useful in relation to the updated Strategy.

***Objective V: The capacities and public engagement necessary to implement the Strategy have been developed***

***Target 15: The number of trained people working with appropriate facilities sufficient according to national needs to achieve the targets of this Strategy***

25. *Terms and technical rationale:* The updated Strategy emphasizes national and regional implementation and broadens the scope of stakeholders, beyond traditional plant conservation activity to sustainable use as well as working with local and indigenous communities. Hence, the focus is not just to increase the number of trained people but to ensure that there is sufficient capacity and capability in place to achieve the targets of the Strategy. “Appropriate facilities” are understood to include adequate technological, institutional and financial resources. Given the current geographical disparity between biodiversity and expertise, this is likely to involve considerably more than a doubling of capacity in many developing countries, small island developing States and countries with economies in transition.

26. *Justification for change:* The scope of the target had been broadened with the aim to ensure sufficiency, not just increase in numbers. Also, the focus is to ensure there is capacity for all skills and sectors required to achieve the targets of the Convention, hence removal of the term “plant conservation”.

***Target 16: Partnerships and networks for plant conservation established or strengthened at national, regional and international levels to achieve the targets of this Strategy***

27. *Terms and technical rationale:* Networks and partnerships enhance communication and provide a mechanism to exchange information, experiences and technology. Partnerships are needed to strengthen links between different sectors relevant to conservation, e.g., the botanical, environmental, agricultural, forest and educational sectors as well link to local and indigenous communities. This target is understood to include the broadening of participation in existing networks, as well as the establishment, where necessary, of new networks. At the global level the establishment of the Global Partnership for Plant Conservation (GPPC) has made a good start at bringing together the plant conservation community, however greater efforts are needed to engage the other sectors such as agriculture, industry, education, forestry, water management and indigenous and local communities communication.

*Justification for change:* Apart from GPPC at the global level, there is still a lack of cross-sectoral networks and partnerships, limited institutional integration and a lack of mainstreaming, at national and regional level, hence the need for include ‘partnerships’ in the text of the target.

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